

**Solicitation No. W912PP23R0009**

**Date: December 2022**



**U.S. ARMY CORPS OF ENGINEERS**

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## **Combat Rescue Helicopter (CRH) Simulator Facility ADAL**

**Solicitation No. W912PP23R0009**

**Kirtland AFB  
New Mexico**

**Ready to Advertise  
Volume 1—Specifications  
Division 01**

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**PROJECT TABLE OF CONTENTS**

**DIVISION 00 - PROCUREMENT AND CONTRACTING REQUIREMENTS**

00 10 00	SOLICITATION, OFFER, AND AWARD, SF 1442; PROPOSAL
00 20 00	SCHEDULE, CORPORATE, PARTNERSHIP, JOINT VENTURE CERTIFICATES
00 21 00	INSTRUCTIONS FOR PROCUREMENT
00 21 00	INSTRUCTIONS
00 22 16	SUPPLEMENTARY INSTRUCTIONS TO PROPOSERS
00 45 00	REPRESENTATIONS AND CERTIFICATIONS
00 50 00	CONTRACTING FORMS AND SUPPLEMENTS - Wage Determination
00 70 00	CONDITIONS OF THE CONTRACT

**DIVISION 01 - GENERAL REQUIREMENTS**

01 01 01	SPECIAL CONTRACT REQUIREMENTS
01 11 00	SUMMARY OF WORK
01 14 00	WORK RESTRICTIONS
01 20 00	INTERFACE WITH OTHER WORK
01 22 00.00 10	PRICE AND PAYMENT PROCEDURES
01 30 00	ADMINISTRATIVE REQUIREMENTS
01 32 01.00 10	PROJECT SCHEDULE
01 33 00	SUBMITTAL PROCEDURES
01 33 29	SUSTAINABILITY REPORTING
01 35 26	GOVERNMENTAL SAFETY REQUIREMENTS
01 42 00	SOURCES FOR REFERENCE PUBLICATIONS
01 45 00.00 10	QUALITY CONTROL
01 45 00.15 10	RESIDENT MANAGEMENT SYSTEM CONTRACTOR MODE (RMS CM)
01 45 35	SPECIAL INSPECTIONS
01 50 00	TEMPORARY CONSTRUCTION FACILITIES AND CONTROLS
01 54 00	SECURITY
01 57 19	TEMPORARY ENVIRONMENTAL CONTROLS
01 58 00	PROJECT IDENTIFICATION
01 62 35	RECYCLED / RECOVERED MATERIALS
01 72 80	TRANSFER AND ACCEPTANCE OF MILITARY REAL PROPERTY
01 74 19	CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT
01 78 00	CLOSEOUT SUBMITTALS
01 78 23	OPERATION AND MAINTENANCE DATA
01 78 24.00 10	FACILITY DATA REQUIREMENTS
01 91 00.15	TOTAL BUILDING COMMISSIONING

**DIVISION 02 - EXISTING CONDITIONS**

02 41 00	DEMOLITION
02 82 00	ASBESTOS REMEDIATION
02 83 00	LEAD REMEDIATION

**DIVISION 03 - CONCRETE**

03 30 00	CAST-IN-PLACE CONCRETE
----------	------------------------

**DIVISION 04 - MASONRY**

04 20 00	UNIT MASONRY
----------	--------------

**DIVISION 05 - METALS**

05 05 23.16	STRUCTURAL WELDING
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05 12 00	STRUCTURAL STEEL
05 21 00	STEEL JOIST FRAMING
05 30 00	STEEL DECKS
05 40 00	COLD-FORMED METAL FRAMING
05 50 13	MISCELLANEOUS METAL FABRICATIONS
05 51 33	METAL LADDERS
05 52 00	METAL RAILINGS
05 72 00	DECORATIVE METAL SPECIALTIES

**DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES**

06 10 00	ROUGH CARPENTRY
06 41 16.00 10	PLASTIC-LAMINATE-CLAD ARCHITECTURAL CABINETS
06 61 16	SOLID SURFACING FABRICATIONS

**DIVISION 07 - THERMAL AND MOISTURE PROTECTION**

07 05 23	PRESSURE TESTING AN AIR BARRIER SYSTEM FOR AIR TIGHTNESS
07 14 00	FLUID-APPLIED WATERPROOFING
07 21 13	BOARD AND BLOCK INSULATION
07 21 16	MINERAL FIBER BLANKET INSULATION
07 22 00	ROOF AND DECK INSULATION
07 27 10.00 10	BUILDING AIR BARRIER SYSTEM
07 27 19.01	SELF-ADHERING AIR BARRIERS
07 27 26	FLUID-APPLIED MEMBRANE AIR BARRIERS
07 60 00	FLASHING AND SHEET METAL
07 61 15.00 20	ALUMINUM STANDING SEAM ROOFING
07 84 00	FIRESTOPPING
07 92 00	JOINT SEALANTS

**DIVISION 08 - OPENINGS**

08 11 13	STEEL DOORS AND FRAMES
08 11 16	ALUMINUM DOORS AND FRAMES
08 14 00	WOOD DOORS
08 31 00	ACCESS DOORS AND PANELS
08 33 23	OVERHEAD COILING DOORS
08 34 01	FORCED ENTRY RESISTANT COMPONENTS
08 34 73	SOUND CONTROL DOOR ASSEMBLIES
08 41 13	ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS
08 71 00	DOOR HARDWARE
08 81 00	GLAZING
08 91 00	METAL WALL LOUVERS

**DIVISION 09 - FINISHES**

09 22 00	SUPPORTS FOR PLASTER AND GYPSUM BOARD
09 24 23	CEMENT STUCCO
09 29 00	GYPSUM BOARD
09 30 10	PORCELAIN TILING
09 51 00	ACOUSTICAL CEILINGS
09 54 26	WOOD PANEL CEILINGS
09 62 38	STATIC-CONTROL FLOORING
09 65 00	RESILIENT FLOORING
09 68 00	CARPETING
09 69 13	RIGID GRID ACCESS FLOORING
09 90 00	PAINTS AND COATINGS

**DIVISION 10 - SPECIALTIES**



10 11 00	VISUAL DISPLAY UNITS
10 14 00.10	EXTERIOR SIGNAGE
10 14 00.20	INTERIOR SIGNAGE
10 21 13	TOILET COMPARTMENTS
10 22 39	FOLDING PANEL PARTITIONS
10 26 00	WALL AND DOOR PROTECTION
10 28 13	TOILET ACCESSORIES
10 56 13	STEEL SHELVING

**DIVISION 12 - FURNISHINGS**

12 24 13	ROLLER WINDOW SHADES
12 48 13	ENTRANCE FLOOR MATS AND FRAMES

**DIVISION 21 - FIRE SUPPRESSION**

21 13 13.00 10	WET PIPE SPRINKLER SYSTEM, FIRE PROTECTION
21 22 00.00 40	CLEAN AGENT FIRE EXTINGUISHING SYSTEMS

**DIVISION 22 - PLUMBING**

22 00 00	PLUMBING, GENERAL PURPOSE
22 31 00	WATER SOFTENERS, CATION-EXCHANGE (SODIUM CYCLE)

**DIVISION 23 - HEATING, VENTILATING, AND AIR CONDITIONING (HVAC)**

23 00 00	AIR SUPPLY, DISTRIBUTION, VENTILATION, AND EXHAUST SYSTEMS
23 05 15	COMMON PIPING FOR HVAC
23 05 48.19	SEISMIC BRACING FOR HVAC
23 05 93	TESTING, ADJUSTING, AND BALANCING FOR HVAC
23 07 00	THERMAL INSULATION FOR MECHANICAL SYSTEMS
23 09 00	INSTRUMENTATION AND CONTROL FOR HVAC
23 09 13	INSTRUMENTATION AND CONTROL DEVICES FOR HVAC
23 09 23.02	BACNET DIRECT DIGITAL CONTROL FOR HVAC AND OTHER BUILDING CONTROL SYSTEMS
23 11 25	FACILITY GAS PIPING
23 23 00	REFRIGERANT PIPING
23 25 00	CHEMICAL TREATMENT OF WATER FOR MECHANICAL SYSTEMS
23 52 46.00 20	LOW PRESSURE WATER HEATING BOILERS (OVER 800,000 BTU/HR OUTPUT)
23 64 10	WATER CHILLERS, VAPOR COMPRESSION TYPE
23 64 26	CHILLED, CHILLED-HOT, AND CONDENSER WATER PIPING SYSTEMS
23 81 23.00 20	COMPUTER ROOM AIR CONDITIONING UNITS

**DIVISION 25 - INTEGRATED AUTOMATION**

25 05 11.21	CYBERSECURITY FOR FACILITY-RELATED CONTROL SYSTEMS FIRE AND LIFE SAFETY
25 05 11.23 01	CYBERSECURITY FOR FACILITY-RELATED CONTROL SYSTEMS UTILITY MONITORING CONTROL SYSTEM (UMCS) TO INCLUDE HVAC
25 05 11.26 01	CYBERSECURITY FOR FACILITY-RELATED CONTROL SYSTEMS UTILITY CONTROL SYSTEMS INCLUDING ELECTRICAL TRANSMISSION AND DISTRIBUTION AND UNINTERRUPTIBLE POWER SUPPLY (UPS)
25 05 11.26 02	CYBERSECURITY FOR FACILITY-RELATED CONTROL SYSTEMS BUILDING CONTROL SYSTEMS INCLUDING ELECTRICAL AND LIGHTING CONTROLS

**DIVISION 26 - ELECTRICAL**

26 20 00	INTERIOR DISTRIBUTION SYSTEM
26 28 01.00 10	COORDINATED POWER SYSTEM PROTECTION
26 29 23	VARIABLE FREQUENCY DRIVE SYSTEMS UNDER 600 VOLTS
26 41 00	LIGHTNING PROTECTION SYSTEM
26 51 00	INTERIOR LIGHTING
26 56 00	EXTERIOR LIGHTING

**DIVISION 27 - COMMUNICATIONS**

27 10 00	BUILDING TELECOMMUNICATIONS CABLING SYSTEM
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**DIVISION 28 - ELECTRONIC SAFETY AND SECURITY**

28 08 10	ELECTRONIC SECURITY SYSTEM ACCEPTANCE TESTING
28 10 05	ELECTRONIC SECURITY SYSTEMS (ESS)
28 31 76	INTERIOR FIRE ALARM AND MASS NOTIFICATION SYSTEM

**DIVISION 31 - EARTHWORK**

31 00 00	EARTHWORK
31 05 19	GEOTEXTILE
31 11 00	CLEARING AND GRUBBING

**DIVISION 32 - EXTERIOR IMPROVEMENTS**

32 01 19	FIELD MOLDED SEALANTS FOR SEALING JOINTS IN RIGID PAVEMENTS
32 05 33	LANDSCAPE ESTABLISHMENT
32 11 20	BASE COURSE FOR RIGID PAVING
32 11 23	AGGREGATE BASE COURSES
32 12 13	BITUMINOUS TACK AND PRIME COATS
32 12 16	HOT-MIX ASPHALT (HMA) FOR ROADS
32 13 13.06	PORTLAND CEMENT CONCRETE PAVEMENT FOR ROADS AND SITE FACILITIES
32 13 73	COMPRESSION JOINT SEALS FOR CONCRETE PAVEMENTS
32 16 19	CONCRETE CURBS, GUTTERS AND SIDEWALKS
32 17 23	PAVEMENT MARKINGS
32 31 13	CHAIN LINK FENCES AND GATES
32 93 00	EXTERIOR PLANTS

**DIVISION 33 - UTILITIES**

33 11 00	WATER UTILITY DISTRIBUTION PIPING
33 11 23	NATURAL GAS AND LIQUID PETROLEUM PIPING
33 30 00	SANITARY SEWERAGE
33 40 00	STORM DRAINAGE UTILITIES
33 71 02	UNDERGROUND ELECTRICAL DISTRIBUTION
33 82 00	TELECOMMUNICATIONS OUTSIDE PLANT (OSP)

**DIVISION 41 - MATERIAL PROCESSING AND HANDLING EQUIPMENT**

41 22 13.14	BRIDGE CRANES, OVERHEAD ELECTRIC, TOP RUNNING
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-- End of Project Table of Contents --

<b>SOLICITATION, OFFER, AND AWARD</b> <i>(Construction, Alteration, or Repair)</i>	1. SOLICITATION NO.  W912PP23R0009	2. TYPE OF SOLICITATION <input type="checkbox"/> SEALED BID (IFB) <input checked="" type="checkbox"/> NEGOTIATED (RFP)	3. DATE ISSUED  08-Dec-2022	PAGE OF PAGES  1 OF 125
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**IMPORTANT - The "offer" section on the reverse must be fully completed by offeror.**

4. CONTRACT NO.	5. REQUISITION/PURCHASE REQUEST NO.	6. PROJECT NO.
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7. ISSUED BY CODE W912PP  US ARMY ENGINEER DISTRICT, ALBUQUERQUE 4101 JEFFERSON PLAZA NE ALBUQUERQUE NM 87109-3435  TEL: FAX: 505-342-3496	8. ADDRESS OFFER TO <i>(If Other Than Item 7)</i> CODE  <div style="text-align: center; font-weight: bold;">See Item 7</div> TEL: FAX:
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9. FOR INFORMATION CALL:	A. NAME KAREN K IRVING	B. TELEPHONE NO. <i>(Include area code) (NO COLLECT CALLS)</i> 505-342-3356
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**SOLICITATION**

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

10. THE GOVERNMENT REQUIRES PERFORMANCE OF THE WORK DESCRIBED IN THESE DOCUMENTS *(Title, identifying no., date):*  
  
 FY20 combat Rescue Helicopter (CRH) Simulator ADAL, Kirtland Air Force Base, Bernalillo County, New Mexico.  
 This requirement is Unrestricted, open to both large and small businesses, utilizing a Low est Price Technically Acceptable (LPTA) Acquisition.  
 Magnitude of Construction is betw een \$10,000,000-\$25,000,000.  
  
 Proposals must be submitted in accordance w ith the requirements in Section 00 22 16. Proposals are due at the time specif ied in Block 13.  
  
 See Section 00 21 00 for information pertaining to the pre-proposal conference and site visit. For technical questions, see Section 00 20 00 pertaining to projnet. As this is not a sealed bid, offers w ill not be opened publicly.  
  
 Please allow sufficient time for turning in your proposal.  
  
 This requirement may be cancelled, delayed, or revised at any time during the solicitation process.

11. The Contractor shall begin performance within <u>10</u> calendar days and complete it within _____ calendar days after receiving <input type="checkbox"/> award, <input checked="" type="checkbox"/> notice to proceed. This performance period is <input checked="" type="checkbox"/> mandatory, <input type="checkbox"/> negotiable. <i>(See 007000 _____.)</i>	12B. CALENDAR DAYS  10
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12 A. THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE AND PAYMENT BONDS?  
*(If "YES," indicate within how many calendar days after award in Item 12B.)*  
☒ YES ☐ NO

13. ADDITIONAL SOLICITATION REQUIREMENTS:  
  
 A. Sealed offers in original and 1 copies to perform the w ork required are due at the place specified in Item 8 by 02:00 PM *(hour)*  
 local time 31 Jan 2023 *(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 60 calendar days for Government acceptance after the date offers are due w ill not be considered and w ill be rejected.

<b>SOLICITATION, OFFER, AND AWARD (Continued)</b> <i>(Construction, Alteration, or Repair)</i>										
<b>OFFER (Must be fully completed by offeror)</b>										
<b>14. NAME AND ADDRESS OF OFFEROR</b> <i>(Include ZIP Code)</i>					<b>15. TELEPHONE NO.</b> <i>(Include area code)</i>					
<div style="border: 1px solid black; height: 40px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; height: 40px;"></div>					<b>16. REMITTANCE ADDRESS</b> <i>(Include only if different than Item 14)</i>  <b>See Item 14</b>					
<b>CODE</b>		<b>FACILITY CODE</b>								
<b>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.    <i>(Insert any number equal to or greater than the minimum requirements stated in Item 13D. Failure to insert any number means the offeror accepts the minimum in Item 13D.)</i></b>										
<b>AMOUNTS</b>		<b>SEE SCHEDULE OF PRICES</b>								
<b>18. The offeror agrees to furnish any required performance and payment bonds.</b>										
<b>19. ACKNOWLEDGMENT OF AMENDMENTS</b> <i>(The offeror acknowledges receipt of amendments to the solicitation -- give number and date of each)</i>										
<b>AMENDMENT NO.</b>										
<b>DATE</b>										
<b>20A. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER</b> <i>(Type or print)</i>					<b>20B. SIGNATURE</b>				<b>20C. OFFER DATE</b>	
<b>AWARD (To be completed by Government)</b>										
<b>21. ITEMS ACCEPTED:</b>										
<b>22. AMOUNT</b>		<b>23. ACCOUNTING AND APPROPRIATION DATA</b>								
<b>24. SUBMIT INVOICES TO ADDRESS SHOWN IN</b> <i>(4 copies unless otherwise specified)</i>				<b>ITEM</b>	<b>25. OTHER THAN FULL AND OPEN COMPETITION PURSUANT TO</b> <input type="checkbox"/> 10 U.S.C. 2304(c) <input type="checkbox"/> 41 U.S.C. 253(c)					
<b>26. ADMINISTERED BY</b>			<b>CODE</b>		<b>27. PAYMENT WILL BE MADE BY:</b> <b>CODE</b>					
<b>CONTRACTING OFFICER WILL COMPLETE ITEM 28 OR 29 AS APPLICABLE</b>										
<input type="checkbox"/> <b>28. NEGOTIATED AGREEMENT</b> <i>(Contractor is required to sign this document and return _____ copies to issuing office.)</i> 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 or incorporated by reference in or attached to this contract.					<input type="checkbox"/> <b>29. AWARD</b> <i>(Contractor is not required to sign this document.)</i> Your offer on this solicitation, is hereby accepted as to the items listed. This award commutes the contract, which consists of (a) the Government solicitation and your offer, and (b) this contract award. No further contractual document is necessary.					
<b>30A. NAME AND TITLE OF CONTRACTOR OR PERSON AUTHORIZED TO SIGN</b> <i>(Type or print)</i>					<b>31A. NAME OF CONTRACTING OFFICER</b> <i>(Type or print)</i>					
<b>30B. SIGNATURE</b>			<b>30C. DATE</b>		<b>31B. UNITED STATES OF AMERICA</b> BY			<b>31C. AWARD DATE</b>		

PROPOSAL SCHEDULE  
(To be attached to SF 1442)

Item No.	Description	Quantity	Unit	Unit Price	Amount
<u>BASE BID ITEMS</u>					
0001	Total cost for Construction within 5' footprint of Building 951B, Complete	1	JOB	***	\$ _____
0002	Total cost for Construction within 5' footprint of Building 923, Complete	1	JOB	***	\$ _____
0003	Total cost for Site Work outside 5' footprint, Complete	1	JOB	***	\$ _____
0004	Total cost for Demolition of Building 954, Complete	1	JOB	***	\$ _____
0005	Total cost for Demolition of Building 960, Complete	1	JOB	***	\$ _____
<u>OPTION BID ITEMS</u>					
0006	Opt. No. 1: Building 923 Office and Collaboration Area	1	JOB	***	\$ _____
0007	Opt. No. 2: Building 923 Telecommunications for Formal Work Area	1	JOB	***	\$ _____
0008	Opt. No. 3: Building 923 Telecommunications for Two Offices and Two Collaboration Rooms	1	JOB	***	\$ _____
0009	Opt. No. 4: Resurfacing of Existing Parking Lot Adjacent to Building 957	1	JOB	***	\$ _____
0010	Opt. No. 5: Construction of Asphalt Surfaced Parking Lot with 59 POV Spaces	1	JOB	***	\$ _____

## PROPOSAL SCHEDULE

OPTION BID ITEMS (CON'T)

0011	Opt. No. 6: Building 951B Operable Panel Partition in lieu of Fixed Partition	1	JOB	***	\$ _____
0012	Opt. No. 7: Building 923 Informal Work Area (Demolition)	1	JOB	***	\$ _____
0013	Opt. No. 8: Building 923 Informal Work Area (New Work)	1	JOB	***	\$ _____
0014	Opt. No. 9: Building 923 Formal Work Area (Complete Renovation)	1	JOB	***	\$ _____
0015	Opt. No. 10: Building 923 (Demo of Water Heater)	1	JOB	***	\$ _____

PROPOSAL SCHEDULE

RECAPITULATION

TOTAL AMOUNT - BASE BID ITEMS	\$ _____
TOTAL AMOUNT - OPTION NO. 1 ITEMS	\$ _____
TOTAL AMOUNT - OPTION NO. 2 ITEMS	\$ _____
TOTAL AMOUNT - OPTION NO. 3 ITEMS	\$ _____
TOTAL AMOUNT - OPTION NO. 4 ITEMS	\$ _____
TOTAL AMOUNT - OPTION NO. 5 ITEMS	\$ _____
TOTAL AMOUNT - OPTION NO. 6 ITEMS	\$ _____
TOTAL AMOUNT - OPTION NO. 7 ITEMS	\$ _____
TOTAL AMOUNT - OPTION NO. 8 ITEMS	\$ _____
TOTAL AMOUNT - OPTION NO. 9 ITEMS	\$ _____
TOTAL AMOUNT - OPTION NO. 10 ITEMS	\$ _____
GRAND TOTAL AMOUNT - BASE BID AND OPTION BID ITEMS	\$ _____

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PROPOSAL SCHEDULE

NOTES:

1. Award of all proposal items will be made to one bidder. Award of Base Bid and Bid Options (if awarded) will be made to one bidder. Bidders must bid on all items.

2. EXERCISE OF OPTIONS. The Government reserves the right to exercise the option(s) by written notice to the Contractor either singularly or in any combination for up to 90 calendar days after award of the Base Bid without an increase in the Offeror's bid price. Completion of added options shall continue at the same schedule as the Base Bid unless otherwise noted in Section 00 70 00, CONDITIONS OF THE CONTRACT.

3. EVALUATION OF OPTIONS: (FAR 52.217-5) (JUL 1990)

Except when it is determined in accordance with FAR 17.206(b) not to be in the Government's best interests, the Government will evaluate offers for award purposes by adding the total price for all options to the total price for the basic requirements. Evaluation of options will not obligate the Government to exercise the options(s).

4. ARITHMETIC DISCREPANCIES:

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

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

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

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



PROPOSAL SCHEDULE

NOTES: (Cont'd)

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

6. PROGRESS PAYMENT REQUESTS made by the Contractor pursuant to the provisions of Contract Clause, PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS, shall be submitted on ENG FORM 93 to the administration office as designated in Block 26, Standard Form 1442 Back, Solicitation, Offer and Award. ENG FORM 93 shall be submitted to that office on the 1st of each month in appropriate form and certified. Photocopies of the form shall be furnished on that same date to the Corps of Engineers offices designated at the Pre-Construction Conference.

7. ACCRUALS. In accordance with USACE Engineer Financial Regulation (ER) 37-1-30, and other applicable Federal and DOD financial accounting standards, the Contractor must assist government personnel with providing reasonably accurate estimates of the value of goods and/or services rendered to the Government pursuant to this contract for each calendar month during which goods and services are delivered. Standard forms and instructions will be provided by the Government to assist with meeting this requirement. These monthly estimates, which facilitate timely entry of accruals, must be received by the Government on or before four (4) business days prior to each calendar month-end.

8. UNIT ABBREVIATIONS

EA. = EACH	M. = METER
L.S. = LUMP SUM	S.M. = SQUARE METER
L.F. = LINEAR FEET	C.M. = CUBIC METER
S.F. = SQUARE FEET	S.Y. = SQUARE YARD
C.F. = CUBIC FEET	C.Y. = CUBIC YARD

- END OF PROPOSAL SCHEDULE -

### **CORPORATE, PARTNERSHIP, JOINT VENTURE CERTIFICATES**

If the offer is submitted by a corporation, partnership or a Joint Venture, the applicable form listed below must be completed and submitted in accordance with Sect 00 22 16. In the alternative, other evidence must be submitted to substantiate the authority of the person signing the offer. If a corporation, the same officer shall not execute both the offer and the certificate.

#### **CORPORATE CERTIFICATE**

I, \_\_\_\_\_, certify that I am the Secretary of the corporation named as Offeror/Contractor herein; that \_\_\_\_\_ who signed this offer/contract on behalf of the Offeror/Contractor was then \_\_\_\_\_ of said corporation; that said offer/contract was duly signed for and on behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

\_\_\_\_\_  
(Secretary) (CORPORATE SEAL)

#### **AUTHORITY TO BIND PARTNERSHIP**

This is to certify that the names and signatures of all partners are listed below and that the person signing the offer had authority to actually bind the partnership pursuant to its partnership agreement. Each of the partners individually has full authority to enter into and execute contractual instruments, on behalf of said partnership, with the United States of America, except as follows: (State "none" or describe limitations, if any.)

This authority shall remain in full force and effect until such time as the revocation of authority by any cause whatsoever has been furnished in writing to, and acknowledged by, the Contracting Officer.

\_\_\_\_\_  
(Type or Print Name)

\_\_\_\_\_  
(Signature)

**JOINT VENTURE**

Provide a copy of the Joint-Venture (JV) agreement. The SF 1442, Solicitation, Offer and Award form must be signed by the party with the authority to bind the JV as indicated in the agreement. Each party to the JV agreement shall complete one of the following entries:

I, \_\_\_\_\_, certify that I am the Secretary of the Corporation named as Offeror/Contractor herein, that \_\_\_\_\_ who signed this offer/contract on behalf of the Offeror/Contractor was then \_\_\_\_\_ of said corporation by authority of its governing body and is within the scope of its corporate powers.

IN WITNESS WHEREOF, I have hereunto affixed my hand and the seal of said corporation this \_\_\_\_\_ day of \_\_\_\_\_.

AFFIX CORPORATE SEAL

\_\_\_\_\_  
(Secretary)

\_\_\_\_\_  
(Corporation A)

I, \_\_\_\_\_, certify that I am the Secretary of the Corporation named as Offeror/Contractor herein, that \_\_\_\_\_ who signed this offer/contract on behalf of the Offeror/Contractor was then \_\_\_\_\_ of said corporation by authority of its governing body and is within the scope of its corporate powers.

IN WITNESS WHEREOF, I have hereunto affixed my hand and the seal of said corporation this \_\_\_\_\_ day of \_\_\_\_\_.

AFFIX CORPORATE SEAL

\_\_\_\_\_  
(Secretary)

\_\_\_\_\_  
(Corporation B)

## Section 00 20 00 - Instructions for Procurement

**OFFEROR'S CHECKLIST**

Administrative Notice to Offerors. Before signing and submitting this proposal, please take note of the following administrative details, as failure to properly perform any one of these actions may cause your proposal to be rejected:

- ☐ Have you acknowledged receipt of ALL solicitation amendments? If in doubt as to the number of amendments issued, please contact Karen Irving, Contract Specialist, at (505) 342-3356.
- ☐ Have you completed Section 00 45 00, Representations and Certifications?
- ☐ Is your offer marked to show the Offeror's name and address, the solicitation number, and the date and time offers are due?
- ☐ If any of the solicitation amendments involved changes to the proposal schedule, did you use the amended schedule for submitting your proposal?
- ☐ Is your proposal guarantee in the proper form and amount?
- ☐ Will your proposal arrive on time? In order for a late proposal to be considered, it must have been dispatched in accordance with the provisions of FAR 52.215-1, "Instructions to Offerors—Competitive Acquisition." Facsimile proposals will not be accepted.
- ☐ Have you reviewed your proposal for possible errors in calculations or work left out?

## **THE FOLLOWING ARE INSTRUCTIONS TO OFFERORS TO SECTION 00 20 00:**

### **USE OF THE WORDS “PROPOSER” AND “OFFEROR”**

Whenever the word “Proposer” appears in the RFP it shall be construed to have the same meaning as the word “Offeror.”

### **REQUIREMENTS FOR PROTECTING FEDERAL CONTRACT INFORMATION (FCI) AND CONTROLLED UNCLASSIFIED INFORMATION (CUI)**

Perspective offerors are advised that per current DoD guidance, they are required to comply with FAR 52.204-21, DFARS 252.204-7012, and DFARS 252.204-7020 requirements for safeguarding FCI and CUI for ALL DoD contract awards. In order to be considered for award, contractors are required to complete a cybersecurity assessment in the Supplier Performance Risk System (SPRS), <https://www.sprs.csd.disa.mil> PRIOR to submitting a proposal. Offerors must be registered in the Procurement Integrated Enterprise Environment (PIEE) in order to access SPRS. Offerors can register for PIEE access at <https://piee.eb.mil/piee-landing>.

### **AVAILABILITY OF PLANS AND SPECIFICATIONS**

This solicitation will be issued via Internet only. Notification of amendments shall be made via Internet only, as well. It is therefore the contractor's responsibility to check the following address daily for any posted changes to this solicitation. For security reasons, all technical and engineering data related to this solicitation will be distributed using SAM.gov, formerly Federal Business Opportunities (fbo.gov). SAM.gov is a consolidation of ten legacy sites into a single database. In order to save searches, follow contract opportunities, request secure documents or sign up for an Interested Vendor List, you will need a login.gov account in SAM.gov. To create a login.gov account or link an existing login.gov account with SAM.gov follow the instructions on the SAM.gov website. Contractors registered with SAM.gov may view and/or download this solicitation and all amendments from the Internet after solicitation issuance at this site.

### **BIDDER INQUIRY AND PROPOSAL INFORMATION**

a. Technical inquiries and questions relating to proposal procedures or bonds are to be submitted via Bidder Inquiry in ProjNet at [www.projnet.org](http://www.projnet.org).

1. To submit and review bid inquiry items, bidders will need to be a current registered user or self register into the system. To self-register, go to the aforementioned web page and click on the BID tab. Select Bidder Inquiry, select agency USACE, and enter the Bidder Inquiry Key for this solicitation listed below, your email address, and then click login. Fill in all required information and click create user. Verify that information on next screen is correct and click continue.
2. From this page, you may view all bidder inquiries or add inquiry.

2. Bidders will receive an acknowledgement of their question via email, followed by an answer to their question after it has been processed by our technical team.
3. The Solicitation Number is: **W912PP23R0009**  
The Bidder Inquiry Key is: **GAE9V2-6SG9IS**

b. The Bidder Inquiry System will be unavailable for new inquiries one week before proposals are due in order to ensure adequate time is allotted to form an appropriate response and amend the solicitation if necessary.

c. Offerors are requested to review the specification in its entirety, review the Bidder Inquiry System for answers to questions prior to submission of a new inquiry.

d. The call center operates weekdays from 8AM to 5PM U.S. Central Time Zone (Chicago). The telephone number for the Call Center is 800-428-HELP.

e. Offers will NOT be publicly opened. Information concerning the status of the evaluation and/or award will NOT be available after receipt of proposals.

#### **CONTRACTING OFFICER AUTHORITY**

The Contracting Officer who signs this contract will be the primary Contracting Officer for this contract. However, any Contracting Officer assigned to the Albuquerque District, contracting within his or her authority, may take formal action on this contract when a contract action needs to be taken and the primary Contracting Officer is unavailable.

#### **NAICS CODE AND SMALL BUSINESS SIZE STANDARD**

The North American Industry Classification System (NAICS) code for this acquisition is **236220**. The small business size standard is: the average annual receipts of the concern and its affiliates for the preceding three fiscal years must not exceed **\$39.5 million**.

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.

#### **ESTIMATED CONSTRUCTION COST (FAR 36.204)**

The estimated magnitude of construction for this project is between \$10,000,000 **and \$25,000,000**.

#### **WHO MAY SUBMIT PROPOSALS**

Any legally organized Offeror may submit a proposal.

Firms submitting a proposal as a joint venture (JV) must ensure the following requirements are met:

- a. Obtain a Tax Identification Number (TIN) for the joint venture.
- b. Prepare the Section 004500, Representations and Certifications as a joint venture (e.g., providing the TIN for the JV)
- c. Register in the System for Award Management (SAM) formerly Central Contractor Registration (CCR) as a joint venture in which a unique CAGE Code will be obtained. See FAR Clause 52.204-7, System for Award Management for further information in Section 002100.
- d. Provide a copy of the JV agreement in the proposal submission.

#### **SYSTEM FOR AWARD MANAGEMENT (SAM) REGISTRATION**

The Offeror must ensure that your company's data at the System for Award Management (SAM) website, <https://www.sam.gov/portal/public/SAM/>, is current per FAR 52.204-13, System for Award Management Maintenance. (This clause is included in Section 007000 of this RFP.)

#### **WHO WILL EVALUATE THE PROPOSALS**

The Evaluation Committee will be composed of Corps of Engineers and Air Force personnel. A list of the members of the committee will not be released and contact with members of the committee is prohibited. Efforts to solicit support from the committee will be considered grounds for disqualification of an Offeror's proposal.

**BONDS (FAR 28.102-2)**

- a. Bid Bond Each Offeror shall submit with his offer a Bid Bond (Standard Form 24) with good and sufficient surety or sureties acceptable to the Government, or other security as provided in FAR 52.228-1. When the penal sum is expressed as a percentage, a maximum dollar limitation may be stated. The bid bond shall remain in effect until Performance and Payment Bonds are provided and accepted.
- b. Performance and Payment Bonds. Within ten (10) calendar days after contract award, and prior to contract performance, the Contractor shall furnish two bonds, a Performance Bond (Standard Form 25) and a Payment Bond (Standard Form 25-A), each with good and sufficient surety or sureties acceptable to the Government. The penal sum of such bonds will be as indicated in FAR 52.228-15.

**NEW MEXICO GROSS RECEIPTS TAX (NMGR)**

The Offeror should be aware that NMGR tax is applicable to this contract and the rate may vary for each county and city. The Gross Receipts Tax Rate is available from the New Mexico Taxation and Revenue Department, (505) 841-6200. The Gross Receipts Tax Rate is available at <http://www.tax.newmexico.gov>.

**FEDERAL, STATE AND LOCAL TAXES**

The Offeror shall include all applicable federal, state and local taxes in the contract price. See FAR 52.229-3, Federal, State, and Local Taxes in Section 007000 for additional information.

**PRE-AWARD INFORMATION**

Each Offeror shall provide, upon request of the Contracting Officer, a list of present commitments, including the dollar value thereof, and name of office under which the work is being performed.

**PERFORMANCE OF WORK BY CONTRACTOR (FAR 36.501)**

Unless such description has been submitted with the offer, the successful Offeror must furnish the Contracting Officer within 20 days after award, a description of the work that he intends to perform with his own organization (e.g., earthwork, paving, brickwork, or roofing), the percentage of the total work this represents, and the estimated cost thereof.

**U.S. ARMY CORPS OF ENGINEERS SAFETY AND HEALTH REQUIREMENTS MANUAL, EM 385-1-1 AND OSHA REQUIREMENTS**

The successful contractor to this Request for Proposals will be required to comply with all pertinent provisions of the latest version of the U.S. Army Corps of Engineers Safety and Health Requirements Manual, EM 385-1-1, in effect on the date of the solicitation. EM 385-1-1 and its changes are available at <http://www.publications.usace.army.mil> by selecting "Safety and Occupational Health" followed by "EM 385-1-1". The Contractor must also comply with Occupational Safety and Health Act (OSHA) standards. OSHA standards are subject to change. It is the Contractor's responsibility to maintain familiarity with current OSHA standards.

**Zero Accident Goal:** The Albuquerque District, in its continual pursuit of excellence in safety has established a goal of zero accidents. To attain this goal, it will be necessary for contractor management to set the expectation that worker injury is unacceptable and to create a culture where employees at all levels accept ownership of their safety performance.

**AMENDMENTS TO REQUEST FOR PROPOSALS**

The right is reserved, as the interest of the Government may require, to revise the specifications and drawings both before and after the date set for receipt of offers. Such revisions, if any, will be announced by amendment(s) to the Request for Proposal. If the revisions and amendments are of a nature which require material changes in quantities, or prices offered, or both, the date set for receipt of offers may be postponed by such number of days as in the opinion of the Contracting Officer will enable the Offeror to revise the offer. In such cases, the amendment will include an announcement of the new date for receipt of offer.

**COSTS RELATED TO PROPOSAL PREPARATION**

All costs related to proposal preparation, including travel, will be borne solely by the Offeror. The Government is not liable for any costs incurred by the Offeror submitting an offer in response to this solicitation.

**CONTRACTOR PERFORMANCE EVALUATIONS**

In accordance with the provisions of Subpart 36.201(Evaluation of Contractor Performance) of the Federal Acquisition Regulation (FAR), construction contractor's performance shall be evaluated throughout the performance of the contract. The United States Army Corps of Engineers (USACE) follows the procedures outlined in Engineering Regulation 415-1-17 to fulfill this FAR requirement. For construction contracts awarded at or above \$750,000.00, the USACE will evaluate contractor's performance and prepare a performance report using the Construction Contractor Appraisal Support System (CCASS), which is a web-based system. After an evaluation (interim or final) is written up by the USACE, the contractor will have the ability to access, review and comment on the evaluation for a period of 30 days. Accessing and using CCASS requires specific software, called PKI certification, which is installed on the user's computer. The certification is a Department of Defense requirement and was implemented to provide security in electronic transactions. The certification software could cost approximately \$110 - \$125 per certificate per year and is purchased from an External Certificate Authorities (ECA) vendor. Current information about the PKI certification process and for contacting vendors can be found on the web site: <http://www.cpars.gov/>. If the Contractor wishes to participate in the performance evaluation process, access to PPIRS and PKI certification is the sole responsibility of the Contractor.



## Section 00 21 00 - Instructions

## CLAUSES INCORPORATED BY REFERENCE

52.204-7	System for Award Management	OCT 2018
52.204-16	Commercial and Government Entity Code Reporting	AUG 2020
52.204-22	Alternative Line Item Proposal	JAN 2017
52.214-34	Submission Of Offers In The English Language	APR 1991
52.214-35	Submission Of Offers In U.S. Currency	APR 1991
52.215-1	Instructions to Offerors--Competitive Acquisition	NOV 2021
52.215-20	Requirements for Certified Cost or Pricing Data and Data Other Than Certified Cost or Pricing Data	NOV 2021
52.215-22	Limitations on Pass-Through Charges--Identification of Subcontract Effort	OCT 2009
52.217-5	Evaluation Of Options	JUL 1990
52.222-5	Construction Wage Rate Requirements--Secondary Site of the Work	MAY 2014
52.225-12	Notice of Buy American Requirement - Construction Materials Under Trade Agreements	MAY 2014
252.204-7019	Notice of NIST SP 800-171 DoD Assessment Requirements	MAR 2022
252.215-7008	Only One Offer	JUL 2019
252.215-7013	Supplies and Services Provided by Nontraditional Defense Contractors.	JAN 2018

## CLAUSES INCORPORATED BY FULL TEXT

52.211-2 AVAILABILITY OF SPECIFICATIONS, STANDARDS, AND DATA ITEM DESCRIPTIONS LISTED IN THE ACQUISITION STREAMLINING AND STANDARDIZATION INFORMATION SYSTEM (ASSIST) (JUL 2021)

(a) Most unclassified Defense specifications and standards may be downloaded from the following ASSIST websites:

(1) ASSIST (<https://assist.dla.mil/online/start/>);

(2) Quick Search (<http://quicksearch.dla.mil/>).

(b) Documents not available from ASSIST may be ordered from the Department of Defense Single Stock Point (DoDSSP) by--

(1) Using the ASSIST Shopping Wizard (<https://assist.dla.mil/wizard/index.cfm>);

(2) Phoning the DoDSSP Customer Service Desk (215) 697-2179, Mon-Fri, 0730 to 1600 EST; or

(3) Ordering from DoDSSP, Building 4, Section D, 700 Robbins Avenue, Philadelphia, PA 19111-5094, Telephone (215) 697-2667/2179, Facsimile (215) 697-1462.

(End of provision)

52.211-14 NOTICE OF PRIORITY RATING FOR NATIONAL DEFENSE, EMERGENCY PREPAREDNESS, AND ENERGY PROGRAM USE (APR 2008)

Any contract awarded as a result of this solicitation will be [ ] DX rated order; [X] DO rated order certified for national defense, emergency preparedness, and energy program use under the Defense Priorities and Allocations System (DPAS) (15 CFR 700), and the Contractor will be required to follow all of the requirements of this regulation. [Contracting Officer check appropriate box.]

(End of provision)

52.216-1 TYPE OF CONTRACT (APR 1984)

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

(End of provision)

52.222-23 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
38.3%	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 Kirtland Air Force Base, Bernalillo County, New Mexico

(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 20 percent of the bid price or \$3,000,000, 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)

#### 52.228-17 INDIVIDUAL SURETY--PLEDGE OF ASSETS (BID GUARANTEE) (FEB 2021)

(a) Offerors shall obtain from each person acting as an individual surety on a bid guarantee--

(1) A pledge of assets that meets the eligibility, valuation, and security requirements described in the Federal Acquisition Regulation (FAR) 28.203-1; and

(2) Standard Form 28, Affidavit of Individual Surety.

(b) The Offeror shall include with its offer the information required at paragraph (a) of this provision within the timeframe specified in the provision at FAR 52.228-1, Bid Guarantee, or as otherwise established by the Contracting Officer.

(c) The Contracting Officer may release the security interest on the individual surety's assets in support of a bid guarantee based upon evidence that the offer supported by the individual surety will not result in contract award.

(End of provision)

#### 52.233-2 SERVICE OF PROTEST (SEP 2006)

(a) Protests, as defined in section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the Government Accountability Office (GAO), shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from

US Army Corps of Engineers  
Attn: Contracting Division (Contracting Officer)  
4101 Jefferson Plaza NE  
Albuquerque, NM 87109

(b) The copy of any protest shall be received in the office designated above within one day of filing a protest with the GAO.

(End of provision)

#### 52.236-27 SITE VISIT (CONSTRUCTION) (FEB 1995) – ALTERNATE I (FEB 1995)

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

(b) An organized site visit has been scheduled for 4 January 2023 at 09:00am.

(c) Participants will meet at the project site on the corner of Biggs Ave SE and Eileen St. on Kirtland AFB. You will enter Truman, take a right at Aberdeen Dr. SE head West and take a left on Eileen street.

(d) Offerors will need to fill out and return the form below no later than 28 December 2022 COB. (Controlled ID is License number.) Please submit forms to Lance Faerber at lance.r.farber@usace.army.mil.

(e) Offerors are cautioned that nothing said or done at the pre-proposal conference or site visit will qualify or modify the terms of the solicitation document. The only instrument that shall qualify or modify the solicitation document is a formal amendment, in writing, per FAR 15.206.

(End of provision)

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

This solicitation incorporates one or more solicitation provisions by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. The offeror is cautioned that the listed provisions may include blocks that must be completed by the offeror and submitted with its

quotation or offer. In lieu of submitting the full text of those provisions, the offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at this/these address(es):

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

(End of provision)

#### 52.252-5 AUTHORIZED DEVIATIONS IN PROVISIONS (NOV 2020)

(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 DFARS (48 CFR Chapter 2) provision with an authorized deviation is indicated by the addition of "(DEVIATION)" after the name of the regulation.

(End of provision)

## Section 00 22 16 - Supplementary Instructions to Proposers

**PROPOSAL SUBMISSION REQUIREMENT, EVALUTATION CRITERIA, AND BASIS  
FOR AWARD FOR FY20 CRH ADAL PHII SIMULATOR FACILITY,  
KIRTLAND AIR FORCE BASE, BERNALILLO COUNTY, NM**

**A. PROPOSAL SUBMISSION****1. GENERAL REQUIREMENTS**

**1.1 The intent of this Request for Proposal (RFP) is to solicit proposals for the FY20 CRH ADAL PHII Simulator Facility, Kirtland Air Force Base (KAFB), Bernalillo County, New Mexico.** The Government reserves the right to award a contract without discussions in accordance with (IAW) FAR 52.215-1, therefore, the offeror's initial proposal should contain the offeror's best terms from a Management/technical and cost/price standpoint. Offerors shall organize their proposals as described herein. Proposals may be determined non-responsive for failure to follow this format.

1.2 The proposal shall describe the capability of the offeror to perform the requirements of the solicitation. The proposal should be specific and complete in every detail, and should be prepared simply and economically, providing a straightforward and concise description of capabilities to satisfactorily perform the requirements. The proposal should be practical, legible, clear, and coherent.

1.3 In order to evaluate all proposals effectively and equitably, the Contracting Officer must receive information containing sufficient detail to allow review and evaluation by the Government. Proposal clarity, organization, and cross-referencing are mandatory. Failure to submit and organize proposals as requested may adversely affect an offeror's evaluation.

**2. PROPOSAL SUBMISSION REQUIREMENTS**

2.1 Each volume shall be submitted electronically. There are two electronic options: via email or using the DoD SAFE (formerly AMRDEC SAFE) if proposals are too large to send via email. When using SAFE, offerors are required to request a drop off code from the Contract Specialist (Karen Irving), [karen.k.irving@usace.army.mil](mailto:karen.k.irving@usace.army.mil) prior to the proposal due date and time. It is recommended that offerors contact the Contract Specialist, prior to the receipt of proposal date and time, to verify that their proposal has been successfully submitted, as the DoD SAFE website does not generate a confirmation email.

2.2 Each paragraph shall be single spaced and be separated by at least one blank line. A standard, 12-point minimum font size applies. Arial or New Times Roman fonts are required. Tables and illustrations may use a reduced font size no less than 10-point and may be produced in landscape mode. Sheet size shall be 8.5 x 11 inches, however if

drawings, charts, or other graphics are submitted, sheets no larger than 11 x 17 inches shall be used. **Each 11 x 17 page shall count as one (1) single page toward the page count.**

2.3 The following volumes of material shall be submitted:

Volume/Title	Electronic Copies	Page limit
Volume 1: Technical Proposal	One (1)	35*
Volume 2: Price Proposal	One (1)	N/A

Volume	Tab	Title	Digital Copies	Maximum Pages	Rating
1	A	Factor 1: Relevant Contractor Experience	1	25	Acceptable/Unacceptable
1	B	Factor 2: Management Approach	1	10	Acceptable/Unacceptable
1	C	Factor 3: Past Performance	1	N/A	Acceptable/Unacceptable
2		Factor 4: Cost/Price	1	N/A	Not Rated
2	A	Solicitation, Offer and Award Documents, and Certifications / Representations	1	N/A	Not Rated
2	B	Proposal Schedule	1	N/A	Not Rated
2	C	Bid Guarantee (Bid Bond)	1	N/A	Not Rated
2	D	Financials and Financial	1	N/A	Not Rated

		Standing Questionnaire			
2	E	JV Agreement or Teaming Agreement (if applicable) and/or Corporate, Partnership, Joint Venture Certificate	1	N/A	Not Rated
2	F	Small Business Subcontracting Plan	1	N/A	Acceptable/Unacceptable

2.3.1 Past Performance Questionnaires, Representations and Certifications, performance recognition documents, Small Business Participation Past Performance, and Small Business Participation Commitment Document are excluded from the page count. Title sheets, indices, a detailed work schedule, and tables of contents are EXCLUDED from the page limitations specified in the tables above.

**2.3.2 NOTE: Pages that exceed the required page limitations will not be evaluated. Additional pages over the maximum allowed will be removed or not read and will not be evaluated by the Government.**

**2.3.3 NOTE: A RATING OF UNACCEPTABLE ON ANY FACTOR WILL RESULT IN AN OVERALL RATING OF UNACCEPTABLE.**

### 3. PROPOSAL FILES

3.1 Format. The submission shall be clearly indexed and logically assembled. Each volume shall be clearly identified and shall begin at the top of a page. All pages of each volume shall be appropriately numbered and identified by the complete company name, date, and Request for Proposal (RFP) number in the header and/or footer. A Table of Contents should be created using the Table of Content feature in MS Word. MS Word (doc) files shall use the following page setup parameters:

Margins – Top, Bottom, Left, Right – 1”  
 Gutter – 0”  
 From Edge – Header, Footer 0.5”  
 Page Size, Width – 8.5”  
 Page Size, Height – 11”

3.2 The following additional restrictions apply:



3.2.1 File Packaging. Files shall be in read-only, searchable format, using PDF files.

3.2.2 Content Requirement. All information shall be confined to the appropriate file. The offeror shall confine submissions to essential matters sufficient to define the proposal in a concise manner to permit a complete and accurate evaluation of each proposal. Proprietary information shall be clearly marked.

3.2.3 Where the word “project” appears, it is understood to mean a project(s), contract(s), task order(s), or any other contract document provided for in the Federal Acquisition Regulation (FAR 2.101). Examples of projects submitted by the Prime Contractor may be projects performed for a State or Federal Government Agency, or for a commercial or private sector customer.

## **B. FACTORS AND EVALUATION APPROACH**

**VOLUME 1, Tabs A-C Technical Proposal.** The volume shall be organized in accordance with the **PROPOSAL SUBMISSION REQUIREMENTS** and include the following:

### **1. Factor 1: Relevant Contractor Experience**

1.1 The offeror shall submit examples of recent construction projects which best illustrate the experience of the construction contractor on relevant projects of similar scope, type, complexity, and magnitude as defined below. **A minimum of three (3) projects, but not more than five (5), are to be submitted for the offeror as the Prime Contractor.** Limit the information to Factor 1 to **twenty five (25) pages** or less. If the offeror’s submission exceeds the project limitation of 5 (five) projects, only the first (5) projects submitted will be evaluated, and any remaining additional project(s) will not be evaluated.

1.1.2 Where the word “recent” appears, it is understood to mean construction type project for which construction is at least 70% complete (measured by performance period days) as of the RFP ISSUE date, or a construction type project that has been completed within 7 years of the RFP ISSUE date. Projects completed more than 7 years before the RFP ISSUE date **will not be considered** for evaluation purposes.

1.1.3 Where the word “relevant” appears, it is understood to mean that project experience submitted is similar to the context of the solicitation in terms of scope, type, magnitude of effort and complexity as described and required in this RFP. For this RFP, “relevant” projects are defined as projects that are similar in terms of:

(a) Construction and commissioning of High Bay facilities with crane infrastructure for Simulators.

(b) Construction and commissioning of military Mission support facilities to include, but not limited to, multi-purpose classrooms, mission planning rooms, administrative space, and image generator rooms.

(c) Demolition of existing free-standing buildings complete with utility removal on a military installation.

Offeror must demonstrate relevant project experience for items (a) through (c) through a single project or a combination of the maximum of five (5) projects.

**All projects submitted for Relevant Contractor Experience must have a project total value of at least \$12,000,000.**

1.1.4 Information is to be compiled on the Contract Description Forms provided at the end of Section 00 22 16 and will be used to evaluate relevant contractor experience. Responses to this factor should take into account experience of the management team proposed for the contract, timeliness of performance, safety and health record, customer satisfaction and cost control. Projects submitted shall include challenges that were overcome and risks that were mitigated by use of quality management, risk evaluation and mitigation, and technical solutions.

1.1.5 Offerors are invited, but not required, to submit photographs of successful projects in conjunction with this section.

1.1.6 Each project example narrative should include the information provided on Contract Description Form and a Narrative description of the project, as described below.

1.1.7 All project examples shall contain a Point of Contact (POC) as well as an alternate POC, to include the name, job title of the POC, address, telephone, and e-mail address. The POC and alternate shall be familiar with the construction performance of the proposer and be a representative of the owner/customer, not affiliated with the proposer. The POC and alternate shall be available to verify the experience cited.

1.1.8 Narratives for each project should include a brief overview of the project and providing specifics as noted herein, discussing major features of the project and each project's relevance and similarities to this project. The role and work assigned to any sub-contractors and/or personnel noted in the narrative shall be explained.

1.1.9 Indefinite-Delivery, Indefinite-Quantity (IDIQ) Contracts, where numerous Task Orders are summed to meet the minimum construction dollar value identified herein, are NOT acceptable.

1.1.10 If proposing as a Joint Venture (JV), providing examples for each prime contractor in the JV within the maximum of five (5) project examples is allowed. JV documentation shall be provided in Volume 2 Tab E of the offeror's price proposal.

- 1.1.11 In the case of contractor teaming arrangements involving a prime contractor and subcontractor(s), where the prime contractor submits the proposal in response to this RFP, the prime contractor must have completed at least 2 of the 3 minimum total number of relevant projects submitted for Factor 1 for consideration in response to the experience requirements of the RFP. Teaming documentation shall be provided in Volume 2 Tab E of the offeror's price proposal. If a teaming agreement or commitment is not provided, the projects of any team members outside of the Prime Contractor will not be considered.

## 1.2 EVALUATION CRITERIA

- 1.2.1 The Government will evaluate the extent of the offeror's experience on projects that are "recent" and "relevant" to the work to be done in the context of this solicitation. Recency and relevancy are defined above. The evaluation will focus on the offeror's experience in construction of facilities similar to this project. The offeror must submit at least three projects that are determined to be recent and relevant to this project as defined in Sections 1.2 and 1.3 above in order to receive an Acceptable rating for this factor.
- 1.2.2 The Government preference is that project examples submitted be of completed projects (i.e., construction complete). Projects still under construction will be evaluated only if they are at least 70% complete as of the RFP ISSUE date.
- 1.2.3 The Offeror MUST, at a minimum, address the requirements listed above. Failure to address these requirements will result in an Unacceptable rating. The Government will evaluate the offeror's understanding of the requirements described in the RFP and associated documents and the capability to execute the project.

## 2 Factor 2: Management Approach

### 2.1 SUBMISSION REQUIREMENTS

- 2.1.1 Provide information that describes the offeror's organization and intended management approach to project management and execution. Limit the information to **ten (10) pages**. At a minimum, the narrative MUST address the key points listed below.
- 2.1.2 Discuss your management approach to successfully complete this construction project.
- 2.1.2.1 Identify and explain the roles and responsibilities of team members that will perform major or critical aspects of construction phases including lines of authority in decision making. Provide an organization chart identifying on-site and remote positions and staff.

- 2.1.2.2 Discuss the role of your proposed subcontractors and their involvement in decision making regarding Requests for Information (RFIs), submittals, and modifications. Identify any experience with local sub-contractors and your approach to managing local workforce.
- 2.1.2.3 Describe your approach to providing and maintaining an effective Quality Control program for this project to meet contract requirements for the unique high bay construction requirements including crane construction and offsite fabrication. Provide a summary level plan to meet the project's Quality Control requirements. Offerors are cautioned that just a reciting of the Technical requirements with a statement of intent to perform does not necessarily reflect an understanding of the requirement or capability to perform. Offerors are responsible for including sufficient details to permit complete and accurate evaluation of each proposal.
- 2.1.2.4 Describe your approach to the demolition of buildings and any potentially hazardous waste disposal and recordkeeping at this particular location. Include discussion of demolition near an existing facility.

## **2.2 EVALUATION CRITERIA**

- 2.2.1 The Offeror MUST, at a minimum, address the requirements listed above. Failure to address all requirements will result in an Unacceptable rating. The Government will evaluate the offeror's understanding of the requirements described in the Division 01 of the RFP in addition to any/all plans and specifications of the RFP and the capability to execute the project.

## **3 Factor 3 – Past Performance**

### **3.1 SUBMISSION REQUIREMENTS**

- 3.1.1 Information provided on the Contract Description Forms provided under Factor 1: Relevant Contractor Experience will be used to evaluate Past Performance.
- 3.1.2 Past Performance Questionnaire (PPQ).
  - 3.1.2.1 For each of the projects submitted in response to Section 1.1, provide a Contractor Performance Assessment Reporting System (CPARS) evaluation, or a completed Past Performance Questionnaire (PPQ), completed by a representative of the owner that provides the owner's opinion of the offeror's past performance for the project. As an alternative to a CPARS evaluation, or when CPARS evaluations do not apply, the Past Performance Questionnaire included in this solicitation (at the end of Section 00 22 16) is provided for the

- offeror or its team members to submit to the customer/client for each project the offeror includes in its proposal for the Past Performance factor. The offeror shall complete Part I of the Past Performance Questionnaire and e-mail the questionnaire to both the contracting activity and technical representative (Government or otherwise) responsible for the past/current contract. The POCs shall be instructed to electronically complete Part II of the questionnaire. Ensure correct phone numbers and email addresses are provided for the customer/client point of contact.
- 3.1.2.2 Completed PPQs should be submitted with your proposal. If the offeror is unable to obtain a completed PPQ from a customer/client for a project before the proposal submission date, the offeror should complete and submit with the proposal the first page of the PPQ which will provide contract and customer information for the respective project(s). Offerors should follow up with customers/clients to ensure timely submittal of questionnaires. The Government reserves the right to contact the customer/client for verification or additional information. If the customer requests, questionnaires may be submitted directly to the Contracting Office no later than the proposal due date via email. Contact Karen Irving, Contract Specialist, via email at [karen.k.irving@usace.army.mil](mailto:karen.k.irving@usace.army.mil).
- 3.1.2.3 Offerors shall not incorporate by reference into their proposal PPQs previously submitted for other RFPs. i.e., offerors cannot reference PPQ's from other projects by simply stating "refer to PPQ submitted for Project XX". Complete PPQs must be submitted for this project. However, this does not preclude the Government from utilizing previously submitted PPQ information into the past performance evaluation.
- 3.1.2.4 Submit copies of Federal/DoD/Navy/Army performance reviews even if they may be in the agency's databases or likely within the agency's arm's reach, i.e., Contractor's copy of CPARS evaluations for each of the projects submitted, to ensure the agency has all relevant past performance information.
- 3.1.2.5 Provide the Unique Entity Identifier (UEI) number(s) and CAGE code(s) for the prime contractor and all teaming partners, e.g., design firms, key subcontractors, and joint venture partners, whose experience is included in this Factor.
- 3.1.2.6 The Government may contact and interview the owner's representative identified on the Past Performance Questionnaires and reserves the right to interview other individuals acting for the owner's representative if the owner's representative is not available. In addition, the Government may review **any** other sources of information for evaluating past performance.

- 3.1.2.7 Offerors may include performance recognition documents received within the last seven (7) years, from RFP ISSUE date, such as awards, award fee determinations, customer letters of commendation, and any other forms of performance recognition relative to the projects submitted for this factor. The Government may review other sources, including, but not limited to, past performance information retrieved through the Past Performance Information Retrieval System (PPIRS), including Contractor Performance Assessment Reporting System (CPARS), using all CAGE/UEI numbers of team members (partnership, joint venture, teaming arrangement, or parent company/subsidiary/affiliate) identified in the offeror's proposal, inquiries of owner representative(s), Federal Awardee Performance and Integrity Information System (FAPIIS), Electronic Subcontract Reporting System (eSRS), and any other known sources not provided by the offeror.
- 3.1.2.8 While the Government **may** elect to consider data from other sources, the burden of providing detailed, current, accurate and complete past performance information rests with the offeror.
- 3.1.2.9 Other types of past performance questionnaires, signed by a commercial customer or signed by a representative from another Federal or State agency, may be submitted as long as the information submitted has the same or similar information as that of the PPQ provided at the end of this section, documenting the quality of the offeror's performance for the project submitted.
- 3.1.2.10 PPQs previously completed by the customer/client may be submitted in lieu of having the customer/client complete a new questionnaire for the contracts identified in the Contract Descriptions Form. Previously completed surveys will be evaluated only if: (1) they match the projects identified in Volume I Tab A **and** (2) they are submitted according to the instructions listed above.
- 3.1.2.11 Small Business Participation Past Performance. All offerors shall submit information substantiating the offerors' past performance in complying with FAR 52.219-8, Utilization of Small Business Concerns, maximizing opportunities for U.S. small business subcontractors. Offerors may submit ISRs/SSRs as part of their past performance. Offerors shall also provide a statement indicating whether any negative information has been reported in the past seven years concerning the offerors' past compliance with FAR 52.219-8 and FAR 52.219-9 (large businesses only). If any such negative information has been reported, the offeror may submit explanations or comments responding to such negative information. Offerors with no prior contracts containing FAR 52.219-8 and 52.219-9 (large businesses only) shall certify the same. In evaluating past performance, the Government reserves the right to review any ISRs/SSRs in the eSRS, not provided in the offeror's proposal.

- 3.1.2.12 If an offeror has been required to take corrective action for any substandard performance (overall rating below Satisfactory), the offeror should explain the circumstances and the corrective actions taken. If an offeror has experienced other performance problems such as cost overruns, extended performance periods, numerous warranty calls, etc., the offeror should provide an explanation of the reason(s) for the shortcomings and any corrective action(s) taken to avoid recurrence.
- 3.1.2.13 At no time during this process, during any debriefing, or after any award, will the names of the individuals providing reference information about an offeror's past performance be revealed to the offerors or to any other party. If discussions are held, Offerors may be afforded the opportunity to respond to adverse comments made by references in accordance with guidelines identified in FAR Part 15.3. In this case, relevant comments will be extracted and provided to the offeror.

### 3.2 EVALUATION CRITERIA

- 3.21 The Offeror shall submit either a CPARS evaluation or PPQ for each of the projects submitted for Factor 1: Experience. The Government will evaluate the Offeror's record of past and current performance to ascertain the probability of successfully performing the required efforts of the contract. Information provided on the Contract Description Forms provided under Factor 1: Relevant Contractor Experience will be used to evaluate Past Performance.

3.2.2 The Government will focus its inquiries on the record of performance as it relates to all solicitation requirements, including cost, schedule, performance and management of subcontractors *and compliance with FAR 52.219-8, Utilization of Small Business Concerns, and FAR 52.219-9, Small Business Subcontracting Plan*. A significant achievement, problem, or lack of relevant data in any element of the work can become an important consideration in the evaluation process. Absent any recent and relevant past performance history ***or when the performance record is so sparse that no meaningful confidence assessment rating can be reasonably assigned***, the offeror will be assigned an Acceptable rating. In making its assessment, the Government may use data provided by the offeror in its proposal and data obtained from other sources, including data in Government files or data obtained through interviews with personnel familiar with the contractor, and any other information relating to their current and past performance under Federal, State or Local government or commercial contracts.

3.2.3 The past performance factor is an assessment of the offeror's probability of successfully performing this contract. This assessment considers each offeror's demonstrated recent and relevant record of performance in supplying products and services that meet the contract requirements.

3.2.3.1 Past performance is initially evaluated to determine whether the offeror's present/past performance is recent, and relevant or not relevant to the effort to be acquired

**3.2.3.2 RECENCY:** The first aspect is to evaluate the recency of the offeror's past performance. Recency is generally expressed as a time period during which past performance references are considered relevant and is critical to establishing the relevancy of past performance information. (Seven (7) years as of the RFP ISSUE date.)

**3.2.3.3 RELEVANCY:** The second aspect is to determine how relevant a recent effort accomplished by the offeror is to the effort to be acquired through the source selection. Relevancy is not separately rated; however, the following criteria (see Table 1) will be used to establish what is relevant which shall include items such as similarity of service/support, complexity, dollar value, contract type, and degree of subcontract/teaming.

<b>Table 1- Past Performance Relevancy Ratings</b>	
<b>Rating</b>	<b>Definition</b>
Relevant	Present/past performance effort involved similar scope and magnitude of effort and complexities as this solicitation requires.
Not Relevant	Present/past performance effort involved little or none of the scope and magnitude of effort and complexities as this solicitation requires.

3.2.4 Past Performance Evaluation Ratings: Past performance information collected will be reviewed to determine how well the offeror performed on prior contracts. Utilizing the Performance Evaluation Ratings (see Table 3 below) the most appropriate rating for each Offeror will be assigned based on the Offeror's demonstrated recent and relevant record of performance.

#### **4 VOLUME 2, Tabs A-F – Cost/Price.**

##### **4.1 The volume shall be organized in accordance with the PROPOSAL SUBMISSION REQUIREMENTS and include the following:**

- 4.1.1 Electronic Copy. The Offeror shall provide a completed Proposal Schedule from Section 00 10 00 of the RFP.
- 4.1.2 Compliance. Failure to comply with the RFP requirements for Cost information may result in an adverse assessment of an offeror's proposal and reduce or eliminate its chance of being selected for award. Offerors shall ensure that the information presented in this volume is consistent and correlates with the information contained in the other proposal volumes. Also, the Offeror shall



ensure that the information submitted in this volume is consistent with and fully supports the amounts set forth in the SF1442 and continuation sheets.

- 4.1.3 General Instructions. In accordance with Federal Acquisition Regulation (FAR) 15.402 and 15.403-1, certified cost or pricing data are not required based on the fact that adequate competition is expected for this procurement. Information other than certified cost or pricing data may be provided in contractor format providing that sufficient information is made available. Information submitted shall be prepared following the instruction in FAR 15.403-5. If after receipt of proposals the Contracting Officer determines that there is insufficient information available to determine price reasonableness and none of the exceptions at FAR 15.403-1 apply, the Offeror may be required to submit cost or pricing data. Additionally, in the event that adequate competition is not obtained, the Contracting Officer may incorporate FAR 52.215-20 entitled, "Requirements for Cost or Pricing Data or Information Other Than Cost or Pricing Data," into the solicitation and request a Certificate of Current Cost or Pricing Data. There are no page limitations for this volume. Proposal information included in this volume which is not directly related to Cost will be disregarded.
- 4.1.4 Proposal Cover Sheet. Offerors shall include a proposal cover sheet in Volume 2 as required by FAR 52.215-1(c)(2). This provision, entitled "Instructions to Offerors – Competitive Acquisition," is included in full text in Section 00 21 00 of the RFP. The proposal cover sheet must provide the following information:
- 4.1.4.1 Solicitation Number
  - 4.1.4.2 Name, address, telephone, and electronic email address
  - 4.1.4.3 UEI, CAGE, and Tax Identification numbers of the Offeror
  - 4.1.4.4 Statement specifying the extent of the agreement with all terms, conditions, and provisions included in the solicitation and agreement to furnish any or all items upon which prices are offered at the price set opposite each item as reflected in the price schedule attached to the SF1442. (Note: failure to agree with all terms, conditions, and provisions in the solicitation may result in the Offeror's proposal being rejected as non-responsive).
  - 4.1.4.5 Name, title, telephone, and electronic email address of person(s) authorized to negotiate on the Offeror's behalf with the Government in connection with this RFP.
  - 4.1.4.6 Name, title, telephone, and electronic email address of person(s) authorized to sign the proposal and any contract that may result from the proposal.

- 4.1.4.7 Name, title, telephone, and electronic email address of alternative point of contact (other than those listed in 7.4.5 and 7.4.6 above) authorized to receive electronic correspondence regarding this RFP.
- 4.1.4.8 Acknowledgement that your company's data at the System for Award Management website is current per FAR 52.204-7, System for Award Management. This clause is included in Section 00 70 00 of this RFP.
- 4.1.5 Following the proposal cover sheet, Volume 2 should be organized into the following tabbed sections:
- 4.1.5.1 Standard Form, Solicitation, Offer and Acknowledgement of Amendments (SF1442). If hard copies are submitted, these documents should be secured within some form of document protector and not "hole punched". The SF1442 shall be completed by the Offeror and duly executed with an original signature by an official authorized to bind the company in accordance with instruction at FAR 4.102. Include with the Offeror's name and address in Block 14 of the SF1442, your company's UEI, CAGE, and Tax Identification numbers. Offerors shall acknowledge all amendments to the solicitation in block 19. If the Offeror fails to acknowledge all amendments, the proposal (Volumes 1 and 2) will be considered non-responsive and shall not be evaluated further.
- 4.1.5.2 Proposal Schedule. Your proposed price for this project shall be in the form of the Proposal Schedule provided in the solicitation. **Offerors may not modify the proposal schedule wording or format.** As this is a firm, fixed price contract, price proposals will not be considered which provide for subsequent increases in price. No qualified price proposal of any type will be accepted; therefore, all offers containing such qualifications will be considered unacceptable. If the Offeror does not comply with all requirements of the proposal forms, the proposal may be considered unacceptable and eliminated from consideration.
- 4.1.5.3 Bid Guarantee/Bond (SF24). This tab shall contain an executed bid bond for either 20% or \$3 Million, whichever is less. Failure to furnish a bid bond in proper form and amount in your Price Proposal may result in the offeror's proposal being rejected from further consideration.
- 4.1.5.4 Certifications/Representations and other Statements of Offerors. This tab shall contain Section 00 45 00 of this solicitation, including the Representation & Certifications cover page completed by the Offeror (to include provision 52.204-26 Covered Telecommunications Equipment or Services). Complete all provisions and fill in all applicable areas. In addition, Offerors shall include in this tab their completed electronic Representations and Certifications from the SAM.gov website. Since FAR 52.204-7 System for Award Management is applicable to this solicitation, the offeror in accordance with FAR 52.204-8 (d) is required to complete the annual representations and

- certifications electronically via the SAM Web site accessed through <https://www.sam.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 by the offeror under this provision. Submit this information under Tab A as indicated above in the table in 2.3.
- 4.1.5.5 Financials and Financial Standing Questionnaire. Offerors shall provide their latest balance sheet and income statement, including names of banks or other financial institutions with which your firm conducts business. If the financial statements are more than 60 days old, a certificate should be attached stating that the financial condition is substantially the same, or if not the same, state the changes that have taken place. The financial statements will be treated as confidential. The Financial Standing Questionnaire provided at the end of this section of the RFP is required to be submitted under this section.
- 4.1.5.6 Small Business Subcontracting Plan. Only large business Offerors are required to submit a subcontracting plan. The plan shall be prepared in accordance with FAR 52.219-9 (DEV), DFARS 252.219-7003, and AFARS Appendix DD. The Offeror shall take into consideration when preparing the required subcontracting plan, that only those subcontracts which are awarded directly by the prime contractor to small and small disadvantaged firms can be included in the plan. Subcontracts to be awarded by a large business subcontractor are subject to the flow-down provisions of the clause and shall be reported by that subcontractor electronically via eSRS (<https://www.esrs.gov>). Failure to submit an acceptable subcontracting plan shall make the Offeror ineligible for the award of the contract. The format for the subcontracting plan and subcontracting goals applicable to this solicitation are provided at the end of section 002216. Subcontracting plans will be evaluated on an ACCEPTABLE/UNACCEPTABLE basis. The Subcontracting Plan must adequately respond to each of the required elements of FAR 52.219-9(d) paragraphs (1) through (15).
- 4.1.5.7 JV Agreement and/or Corporate, Partnership, Joint Venture Certificate. If applicable, the offeror shall provide a copy of the firm's JV Agreement. The offeror shall provide a completed copy of the Corporate Partnership, Joint Venture Certificate provided in the RFP.
- 4.1.5.8 Teaming Agreement. If utilizing a Teaming Arrangement, as part of your proposal, the offeror must provide a contractor team agreement signed by all parties, identifying the legal name(s) of all entities, and describing the nature

of each entity's relationship (teaming/partnering, joint venture, mentor/protégé, etc.)

4.1.6 **Factor 4: Cost/Price Factor.** Adjectival ratings shall not be used for offerors' Cost/Price proposals. The Government will fully evaluate and, if necessary, negotiate all priced Contract Line Item Numbers (CLINs) for award. For award purposes, the total proposed price for all CLINs will be added together into a total sum (contract value). The evaluation of all option CLINs will not obligate the Government to exercise any option.

4.1.7 The Offeror's Cost/Price proposal will be evaluated as follows.

4.1.7.1 FFP Evaluation. For a price to be fair and reasonable, it must represent a price to the Government that a prudent person would pay in the conduct of competitive business. The Offeror's proposed fixed-price CLINs may be evaluated, using one or more of the techniques described in FAR 15.404-1 in order to determine if they are fair and reasonable.

4.1.7.2 Overall Cost/ Price Proposal Evaluation: The overall Cost/Price proposal will be evaluated for the following:

4.1.7.2.1 Compliance: The Cost/Price proposal submitted by the Offeror will be evaluated for compliance based upon the submission requirements contained in this Section 00 22 16, Volume 2-- Cost/Price instructions.

4.1.7.2.2 Errors: The Offeror's Cost/Price proposal will be reviewed for errors. The Offeror may be given an opportunity to clarify certain aspects of their proposal at the sole discretion of the Contracting Officer.

4.1.7.2.3 Total Evaluated Price: The Total Evaluated Price consists of summing the Offeror's proposed fixed-price CLIN prices for the base bid and any/all optional CLINs.

## C. BASIS FOR AWARD

1.1 Proposals must meet the criteria stated in the RFP in order to be eligible for award, to include responsiveness, technical acceptability, and responsibility.

1.2 The Government intends to award without discussions based on the initial proposals received, therefore, the proposals shall contain the Offeror's best terms from a cost and technical standpoint. However, the Government reserves the right to conduct discussions in accordance with FAR 52.215-1 if the discussions are deemed necessary at the Government's discretion. The Government reserves the right to address any pertinent issues in the proposals.

1.3 The award will be made to the lowest priced technically acceptable proposal. Proposals will be evaluated for technical acceptability (including past

performance) but will not be ranked using the non-price Factors (and Subfactors). In order for an Offeror to be considered for award, the proposal **must** receive an “Acceptable” rating in every non-price Factor. A proposal receiving a rating of “Unacceptable” in any non-price Factor will not be eligible for award. Additionally, any other than small business offeror must have an acceptable Small Business Subcontracting Plan to receive an award in accordance with Federal Acquisition Regulation (FAR) 19.702(a).

## **2 EVALUATION**

- 2.1 Each member of the Source Selection Evaluation Board (SSEB) will independently consider all information provided in the technical proposal (non-priced factors). Once these individual analyses are completed, the team will meet and determine a rating for each of the evaluation Factors by consensus decision. The evaluation team will document their decision to support the rating for each Factor.
- 2.2 The Past Performance Factor considers each Offeror’s demonstrated record of performance as explained in more detail above in Factor 3. The past performance evaluation will consider recency (within 7 years from RFP ISSUE date) and relevancy (similar scope, type, magnitude) of the projects submitted as well as trends in the Offeror’s performance record.
- 2.3 Past Performance information will be reviewed to determine the quality of the Offeror’s performance, general trends, and usefulness of the information and incorporate these into the evaluation rating.
- 2.4 The Government will evaluate the offeror’s probability of meeting the minimum past performance solicitation requirements and prior compliance with FAR 52.219-8 Utilization of Small Business Concerns and FAR 52.219-9 Small Business Subcontracting Plan (if applicable). The Government will utilize the rating descriptions outlined below (see Table 3 to evaluate Past Performance).
- 2.5 Documentation and comments are required for all ratings. This consensus rating will be provided to the Source Selection Authority who, independently exercising prudent business judgment, will select the most qualified Contractor.

## **3 DEFINITIONS:**

- 3.1 Rating. The adjective descriptor assigned by the evaluators to the non-Cost/Price Factors. It represents their conclusions as to the contractor’s ability to meet the minimum standards of acceptability.

## **4 Technical Rating**

- 4.1 In accordance with the Army Source Selection Supplement (AS3), Appendix A,

the Army methodology for evaluating Technical Factors is to assign a rating of Acceptable or Unacceptable to each factor (see Table 2 below). Proposals are evaluated for acceptability, but not ranked using the non-cost/price factors. The Government will assess whether the offeror's proposal will satisfy the Government's minimum requirements.

**Table 2: Technical Ratings**

<b>TECHNICAL ACCEPTABLE/UNACCEPTABLE RATINGS</b>	
<b>Rating</b>	<b>Definition</b>
Acceptable	Proposal meets the requirements of the solicitation.
Unacceptable	Proposal does not meet the requirements of the solicitation.

4.2 The adjectival ratings below will be used to rate non-priced Factor 3, Past Performance.

<b>Table 3: Past Performance Evaluation Ratings</b>	
<b>Rating</b>	<b>Definition</b>
Acceptable	Based on the offeror's performance record, the Government has a reasonable expectation that the offeror will successfully perform the required effort, or the offeror's performance record is unknown.
Unacceptable	Based on the offeror's performance record, the Government does not have a reasonable expectation that the offeror will be able to successfully perform the required effort.

## **D. DISCUSSIONS**

- 1.1 GENERAL INFORMATION. In accordance with FAR 15.306(d), discussion sessions with each offeror may be held. Should discussions take place, all offerors in the competitive range will be notified and allowed to submit Final Proposal Revisions if discussions require such revisions.
- 1.2 DISCUSSION SCHEDULING. If discussions are conducted, the Contracting Officer will schedule the discussion sessions, and each offeror will be notified. The Contracting Officer will provide additional instructions with the notification.

**END OF SECTION**

**SUBCONTRACTING PLAN INFORMATION FOR VOLUME 2, TAB F**

**Contractor shall provide detailed explanations/documentation supporting the proposed subcontracting goals.** All proposed socioeconomic goals shall be substantiated with the Offeror's supported market research. Proposing only the minimum Department of Defense Office of Small Business Programs statutory goals, without providing substantiated market research may result in an Unacceptable rating. Please note that in accordance with DFARS 219.705-4 the minimum subcontracting requirement to Small Disadvantaged Businesses is 5.0%.

**1. SUBMIT YOUR PLAN IN THE ATTACHED FORMAT**

2. Subcontracting Plans will be evaluated in accordance with FAR Clause 52.219-9 and AFARS Appendix DD.

3. If you have identified specific small businesses by name in the technical part of your proposal as businesses you intend to utilize on this contract, you must also list them in your subcontracting plan.

\* An Indian tribe or tribally owned corporation does not have to qualify as a small business concern to be counted toward the Small Disadvantaged Business goal.

*This template may be used by offerors in preparing their subcontracting plan. It is the responsibility of the offeror to ensure that its subcontracting plan meets the requirements of FAR 52.219-9 and is comparative to the commitments in its Small Business Participation Commitment Document.*

**SUBCONTRACTING PLAN  
SOLICITATION NO.: W912PP23R0009**

**CRH ADAL PHII Simulator Facility, Kirtland Air Force Base, Bernalillo County, New Mexico**

---

Company Name:

UEI #:

Cage Code

Tax ID#

Address:

**PLAN TYPE: INDIVIDUAL SUBCONTRACTING PLAN**

**1. ACQUISITION:**

Total dollar value of contract proposal including all options: \$ \_\_\_\_\_

**2. GOALS (52.219-9(d)(1-2)):**

Below indicate the dollar and percentage goals for Small Business (SB), Small Disadvantaged (SDB) including Alaska Native Corporations and Indian Tribes, Women-owned and Economically Disadvantaged Women-Owned (WOSB), Historically Underutilized Business Zone (HUBZone), Veteran Owned Small Business (VOSB), Service-Disabled Veteran-Owned (SDVOSB) Small Businesses and "Other than Small Business" (Other) as subcontractors.

**\*\*In accordance with DFARS 219.705-4, the minimum subcontracting requirement for SDB businesses is 5.0%.**

- |  |          |         |
|--|----------|---------|
| (a) Total estimated dollar value of <b>ALL planned subcontracting</b> , i.e., with ALL types of concerns under this contract and percent of planned subcontracting dollars (% of total value). | \$ _____ | _____ % |
| (b) Total estimated dollar value and percent of planned subcontracting with <b>SMALL BUSINESSES</b> (including SDB, WOSB, HUBZone, VOSB and SDVOSB): (% of "a")                                | \$ _____ | _____ % |
| (c) Total estimated dollar value and percent of planned subcontracting with <b>SMALL DISADVANTAGED BUSINESSES</b> : (% of "a")   | \$ _____ | _____ % |
| (d) Total estimated dollar value and percent of planned subcontracting with <b>WOMEN-OWNED SMALL BUSINESSES</b> : (% of "a")   | \$ _____ | _____ % |
| (e) Total estimated dollar and percent of planned subcontracting with <b>HUBZone SMALL BUSINESSES</b> : (% of "a")   | \$ _____ | _____ % |
| (f) Total estimated dollar and percent of  | \$ _____ | _____ % |



planned subcontracting with **Veteran-Owned SMALL BUSINESSES**: (% of "a")

(g) Total estimated dollar and percent of planned subcontracting with **Service-Disabled Veteran-Owned SMALL BUSINESSES**: (% of "a") \$ \_\_\_\_\_ %

(h) Total estimated dollar and percent of planned subcontracting with **"OTHER THAN SMALL BUSINESSES"** (As defined by the Small Business Administration as "any entity that is not classified as a small business. This includes large businesses, state and local governments, non-profit organizations, public utilities, educational institutions and foreign-owned firms.) (% of "a") \$ \_\_\_\_\_ %

### 3. COMPANY'S POLICY (AFARS DD-301(1))

Provide your company's policy statement to Pub. L. 99-661, Section 1207, and Pub.L. 100-180, Section 806 (subcontracting to small business concerns). Describe special emphasis placed on subcontracting with SDBs. Describe corporate and management commitment to meeting your subcontracting plan.

### 4. DESCRIPTION OF SUPPLIES/SERVICES (FAR 52.219-9(d)(3)):

Provide a description of ALL the supplies and services to be subcontracted and identify the types of supplies or services planned for subcontracting to small business (including ANC's and Indian tribes), VOSB, SDVOSB, HUBZone, SDB and WOSB concerns.

### 5. DESCRIPTION OF THE METHOD USED TO DEVELOP SUBCONTRACTING GOALS FOR SB AND SB CONCERNS (FAR 52.219-9(d)(4)):

Provide a description of the method used to develop the subcontracting goals for SB, SDB, WOSB, HUBZone and SDVOSB concerns.

### 6. POTENTIAL SOURCES FOR SOLICITATION (FAR 52.219-9(d)(5)):

Provide a description of the method used to identify potential sources for the solicitation (e.g., existing company source lists, SAM, veterans service organizations, the National Minority Purchasing Council Vendor Information Service, the Research and Information Division of the Minority Business Development Agency in the Department of Commerce, or small, HUBZone, small disadvantaged, and women-owned small business trade associations). Identify any source lists or other resources used in the determination process.

### 7. INDIRECT COST (FAR 52.219-9(d)(6)):

Indirect and overhead costs \_\_\_\_\_ HAVE / \_\_\_\_\_ HAVE NOT been included in the subcontracting goals.

If indirect costs HAVE been included, explain the method used to determine the proportionate share of such costs to be allocated as subcontracts to SB, SDB, WOSB, HUBZone, VOSB and SDVOSB concerns:

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**8. PROGRAM ADMINISTRATOR (FAR 52.219-9(d)(7)):**

This individual is employed by our company and will be the administrator of our Subcontracting Program:

Name: Title: Address:

Telephone Number:

E-Mail Address:

Duties : Does the individual named above have general overall responsibility for the company's subcontracting program, i.e., developing, preparing, and executing subcontracting plans and monitoring performance relative to the requirements of those subcontracting plans and perform the following duties? (If NO is checked, please indicate who in the company performs those duties, or indicate why the duties are not performed in your company)

<u>YES</u>	<u>NO</u>	<u>Duties</u>
_____	_____	Developing and promoting company-wide policy initiatives that demonstrate the company's support for awarding contracts and subcontracts to SB, SDB, WOSB, HUBZone, VOSB and SDVOSB concerns; and for assuring that these concerns are included on the source lists for solicitations for products and services they are capable of providing;
_____	_____	Developing and maintaining bidder source lists of SB, SDB, WOSB, HUBZone, VOSB and SDVOSB concerns from all possible sources;
_____	_____	Ensuring periodic rotation of potential subcontractors on bidder's lists;
_____	_____	Assuring that SB, SDB, WOSB, HUBZone, VOSB and SDVOSB businesses are included on the bidders' list for every subcontract solicitation for products and services that they are capable of providing.
_____	_____	Ensuring that Requests for Proposals (RFPs) are designed to permit the maximum practicable participation of SB, SDB, WOSB, HUBZone, VOSB and SDVOSB concerns.
_____	_____	Reviewing subcontract solicitations to remove statements, clauses, etc., which might tend to restrict or prohibit small, 8(a), SDB, WOSB, HUBZone, VOSB and SDVOSB small business participation.
_____	_____	Accessing various sources for the identification of SB, SDB, WOSB, HUBZone, VOSB and SDVOSB concerns to include the System for Award Management ( <a href="http://sam.gov">http://sam.gov</a> ), local small business and minority associations, local chambers of commerce and Federal agencies' Small Business Offices;
_____	_____	Establishing and maintaining contract and subcontract award records;
_____	_____	Participating in Business Opportunity Workshops, Minority Business Enterprise Seminars, Trade Fairs, Procurement Conferences, etc;
_____	_____	Ensuring that SB, SDB, WOSB, HUBZone, VOSB and SDVOSB concerns are made aware of subcontracting opportunities and assisting concerns in preparing responsive bids to the company;
_____	_____	Conducting or arranging for the conduct of training for purchasing personnel regarding the intent and impact of Section 8(d) of the Small Business Act, as amended;
_____	_____	Monitoring the company's subcontracting program performance and making any adjustments necessary to achieve the subcontract plan goals;
_____	_____	Preparing and submitting timely, required subcontract reports;
_____	_____	Conducting or arranging training for purchasing personnel regarding the intent and impact of 8(d) of the Small Business Act on purchasing procedures;
_____	_____	Coordinating the company's activities during the conduct of compliance reviews by Federal agencies;
		Other duties:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**9. EQUITABLE OPPORTUNITY (FAR 52.219-9(d)(8)):**

Describe efforts the Offeror will undertake to ensure that SB, SDB, WOSB, HUBZone, VOSB and SDVOSB concerns will have an equitable opportunity to compete for subcontracts.

**10. STATEMENT OF FLOW DOWN (FAR 52.219-9(d)(9)):**

The Offeror provides assurance that:

**YES Assertion:**

- \_\_\_\_\_ (a) Clause 52.219-8 Utilization of Small Business Concerns will be included in all subcontracts that offer further subcontracting opportunities.
- \_\_\_\_\_ (b) All subcontractors (except small businesses) that receive subcontracts in excess of \$700,000 (\$1.5 million for Construction) will be required to adopt a plan that complies with the requirements of the clause at 52.219-9 Small Business Subcontracting Plan.

**11. REPORTING AND COOPERATION (FAR 52.219-9(d)(10)):**

The Offeror provides assurance to:

**YES Assertion:**

- \_\_\_\_\_ (a) Cooperate in any studies or surveys as may be required
- \_\_\_\_\_ (b) Submit periodic reports so that the Government can determine the extent of compliance by the Offeror with the subcontracting plan.
- \_\_\_\_\_ (c) Submit the Individual Subcontract Report (ISR), and the Summary Subcontract Report (SSR) using the Electronic Subcontracting Reporting System (eSRS) (<http://www.esrs.gov>), following the instructions in the eSRS
- (i) The ISR shall be submitted semi-annually during contract performance for the periods ending March 31 and September 30. A report is also required for each contract within 30 days of contract completion. Reports are due 30 days after the close of each reporting period, unless otherwise directed by the contracting officer. Reports are required when due, regardless of whether there has been any subcontracting activity since the inception of the contract or the previous reporting period. When a contracting officer rejects an ISR, the contractor is required to submit a revised ISR within 30 days of receiving the notice of the ISR rejection.
- (ii) The SSR shall be submitted annually by October 30 for the twelve-month period ending September 30. When an SSR is rejected, the contractor is required to submit a revised SSR within 30 days of receiving the notice of SSR rejection;
- \_\_\_\_\_ (d) Ensure that subcontractors with subcontracting plans agree to submit the ISR and/or the SSR using the eSRS

- \_\_\_\_\_ (e) Provide prime contract number and UEI number, and the e-mail address of the Offeror's official responsible for acknowledging receipt of or rejecting the ISRs to all first-tier subcontractors with subcontracting plans so they can enter this information into the eSRS when submitting their ISRs
- \_\_\_\_\_ (f) Require that each subcontractor with a subcontracting plan provide the prime contract number, its own UEI number, and the e-mail address of the subcontractor's official responsible for acknowledging receipt of or rejecting the ISRs, to subcontractors with subcontracting plans

## **12. RECORD KEEPING (FAR 52.219-9(d)(11)):**

FAR 52.219-9(d)(11) requires a description list of the types of records your company will maintain to demonstrate the procedures adopted to comply with the requirements and goals in the subcontracting plan. The following is a recitation of the types of records the Offeror will maintain to demonstrate the procedures adopted to comply with the requirements and goals in the subcontracting plan. These records will include, but are not be limited to, the following:

- (a) SB, SDB, WOSB, HUBZone, VOSB and SDVOSB source lists, guides and other data identifying such vendors;
- (b) Organizations contacted in an attempt to locate SB, SDB, WOSB, HUBZone, VOSB and SDVOSB sources;
- (c) On a contract-by-contract basis, records on all subcontract solicitations over Simplified Acquisition Threshold, which indicate for each solicitation (1) whether SB, SDB, WOSB, HUBZone, VOSB and/or SDVOSB concerns were solicited, if not, why not and the reasons solicited concerns did not receive subcontract awards;
- (d) Records to support other outreach efforts, e.g., (A) Trade associations; (B) Business development organizations; (C) Conferences and trade fairs to locate small, HUBZone small, small disadvantaged, service-disabled veteran-owned, and women-owned small business sources; and (D) Veterans service organizations.
- (e) Records to support internal guidance and encouragement provided to buyers through (1) workshops, seminars, training programs, incentive awards; and (2) monitoring performance to evaluate compliance with the program and requirements; and
- (f) On a contract-by-contract basis, records to support subcontract award data including the name, address, and business type and size of each subcontractor. (This is not required on a contract-by-contract basis for commercial plans.)
- (g) Other records to support your compliance with the subcontracting plan: (Please describe)

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## **13. GOOD FAITH EFFORT (FAR 52.219-9(d)(12))**

Maximum practicable utilization of SB, SDB, WOSB, HUBZone, VOSB and SDVOSB concerns as subcontractors in Government contracts is a matter of national interest with both social and economic benefits. When a contractor fails to make a good faith effort to comply with a subcontracting plan, these objectives are not achieved, and 15 U.S.C. 637(d) (4) (F) directs that liquidated damages shall be paid by the contractor.

- (a) Provide assurance that the Offeror will make a good faith effort to acquire articles, equipment, supplies, services, or materials, or obtain the performance of construction work from the small

business concerns that it used in preparing the bid or proposal, in the same or greater scope, amount, and quality used in preparing and submitting the bid or proposal. Responding to a request for a quote does not constitute use in preparing a bid or proposal. The Offeror used a small business concern in preparing the bid or proposal if—

- (i) The Offeror identifies the small business concern as a subcontractor in the bid or proposal or associated small business subcontracting plan, to furnish certain supplies or perform a portion of the subcontract; or
- (ii) The Offeror used the small business concern's pricing or cost information or technical expertise in preparing the bid or proposal, where there is written evidence of an intent or understanding that the small business concern will be awarded a subcontract for the related work if the Offeror is awarded the contract.

- (b) In order to demonstrate your compliance with a good faith effort to achieve the SB, SDB, WOSB, HUBZone, VOSB and SDVOSB small business subcontracting goals, outline the steps your company plans to take.

#### 14. PERFORMANCE (FAR 52.219-9(d)(13))

Provide assurances that the Offeror will provide to the Contracting Officer, within 30 days of contract completion, a written explanation if the contractor fails to acquire articles, equipment, supplies, services or materials or obtain the performance of construction work as described in the bid or proposal.

#### 15. SUBCONTRACTORS (FAR 52.219-9(d)(14 -15))

The Offeror provides assurance to:

**YES Assertion:**

\_\_\_\_\_ (a) Not prohibit a subcontractor from discussing with the Contracting Officer any material matter pertaining to payment to or utilization of a subcontractor.

\_\_\_\_\_ (b) Pay its small business subcontractors on time and in accordance with the terms and conditions of the underlying subcontract, and notify the contracting officer when the prime contractor makes either a reduced or an untimely payment to a small business subcontractor (see 52.242-5).

#### PREPARER OF THE SUBCONTRACTING PLAN

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Email Address: \_\_\_\_\_

**CONTRACT DESCRIPTION FORM****Volume 1, Tab A, Section 1****Control No.: W912PP23R0009**

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Provide a completed form for each project for which experience is being submitted. Project experience submitted by the offeror as a subcontractor will not be evaluated.

(a) OFFEROR'S NAME (Prime Contractor): \_\_\_\_\_

Project Name: \_\_\_\_\_

Project Location: \_\_\_\_\_

Client/Customer: \_\_\_\_\_

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(b) Contract Number: \_\_\_\_\_  
(For Indefinite Delivery type contracts, GSA contracts, and Blanket Purchase Agreements, include Delivery Order Numbers)

Contract Type (e.g. Fixed-Priced, Cost Reimbursement, etc.): \_\_\_\_\_

Awarded price/cost: \_\_\_\_\_

Final or projected final price/cost: \_\_\_\_\_

Original delivery schedule (include dates of start and completion): \_\_\_\_\_

Final or projected delivery schedule (include dates of start and completion): \_\_\_\_\_

Percent of Completion (if project is currently under construction) \_\_\_\_\_

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(c) Client/Customer Point of Contact: \_\_\_\_\_

Address: \_\_\_\_\_

Email: \_\_\_\_\_

Fax: \_\_\_\_\_

Telephone: \_\_\_\_\_

(d) Government Contracting Activity/Agency (if applicable): \_\_\_\_\_

Address: \_\_\_\_\_

Contracting Officer: \_\_\_\_\_

Email: \_\_\_\_\_

Fax: \_\_\_\_\_

Telephone: \_\_\_\_\_

Government Contract Administration Activity (if applicable): \_\_\_\_\_

Administrative Contracting Officer (ACO): \_\_\_\_\_

Contracting Officer Representative (COR): \_\_\_\_\_

Address: \_\_\_\_\_

Email: \_\_\_\_\_

Fax: \_\_\_\_\_

Telephone: \_\_\_\_\_

(e) Description of project: (Provide a specific narrative explanation of the contract and objectives achieved. Detail how the effort is relevant to the requirement of this RFP):

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper has a slight shadow on the right side, suggesting it's resting on a surface.

(f) If contract did not meet original schedule or technical performance requirements, provide a brief explanation of the reason(s) for the shortcomings and any corrective action(s) taken to avoid recurrence:

[illegible]

(g) List each time the delivery schedule was revised and provide an explanation of why the revision was necessary. Address all Requests for Deviation and Requests for Waiver with respect to causes and corrective actions:

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(h) Was the project terminated early or was Cure Notices or Show Cause Letters received on this contract? Yes \_\_\_\_ No \_\_\_\_: If yes, explain nature of termination (default/convenience). Provide copy of any Cure Notices or Show Cause Letters received and describe any corrective action(s) implemented by the offeror or subcontractor:

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(i) Safety record (Use the number reported on OSHA Form No. 200 or equivalent):

Injuries with Lost Workdays \_\_\_\_\_

Injuries without Lost Workdays \_\_\_\_\_

Explain any injuries that occurred and corrective action(s) taken: \_\_\_\_\_

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(j) List and explain any customer concerns or dissatisfaction. Explain how you responded:

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(k) Small Business Subcontracting Effort (Complete for Offeror/Prime Contractor only):

**All Offerors:** List types of work subcontracted to small businesses and percentage of contract (see FAR 52.219-8, Utilization of Small Business Concerns):

<u>Type of Work Subcontracted to SB</u>	<u>% of Contract</u>
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____
6. _____	_____

(l) If applicable, provide data on all manufacturing warranty returns. Data shall delineate total number of warranty returns. Data shall delineate total number of warranty returns, number of Could Not Duplicate (CND), number of failures attributable to GFE component Failures, and number and nature of failures attributable to the offeror's delivered product: \_\_\_\_\_

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**USACE PAST PERFORMANCE QUESTIONNAIRE (Form PPQ-0)**  
**CONTROL # :W912PP23R0009**

**Note: The past performance questionnaire consists of a total of five (5) pages.**

**CONTRACT INFORMATION (Offeror to complete Blocks 1-4)**

**1. Contractor Information**

Firm Name:

CCR CAGE Code:

Address:

CCR UEI Number:

Phone Number:

Email Address:

Point of Contact:

Contact Phone Number:

**2. Work Performed as:** ☐ Prime Contractor ☐ Sub Contractor ☐ Joint Venture ☐ Other  
 Explain:

Percent of project work performed:

If subcontractor, who was the prime (Name/Phone #):

**3. Contract Information**

Contract Number:

Delivery/Task Order Number (if applicable):

Contract Type: ☐ Firm Fixed Price ☐ Cost Reimbursement ☐ Other (Please specify):

Contract Title:

Contract Location:

Award Date (mm/dd/yy):

Contract Completion Date (mm/dd/yy):

Actual Completion Date (mm/dd/yy):

Explain Differences:

Original Contract Price (Award Amount):

Final Contract Price (*to include all modifications, if applicable*):

Explain Differences:

**4. Project Description:**Complexity of Work ☐ High ☐ Med ☐ RoutineHow is this project relevant to project of submission? *(Please provide details such as similar equipment, requirements, conditions, etc.)***CLIENT INFORMATION (Client to complete Blocks 5-8)****5. Client Information**

Name:

Title:

Phone Number:

Email Address:

**6. Describe the client's role in the project:****7. Date Questionnaire was completed (mm/dd/yy):****8. Client's Signature:**

**NOTE: NAVFAC/USACE REQUESTS THAT THE CLIENT COMPLETES THIS QUESTIONNAIRE AND SUBMITS DIRECTLY BACK TO THE OFFEROR. THE OFFEROR WILL SUBMIT THE COMPLETED QUESTIONNAIRE TO USACE WITH THEIR PROPOSAL, AND MAY DUPLICATE THIS QUESTIONNAIRE FOR FUTURE SUBMISSION ON USACE SOLICITATIONS. CLIENTS ARE HIGHLY ENCOURAGED TO SUBMIT QUESTIONNAIRES DIRECTLY TO THE OFFEROR. HOWEVER, QUESTIONNAIRES MAY BE SUBMITTED DIRECTLY TO USACE. PLEASE CONTACT THE OFFEROR FOR USACE POC INFORMATION. THE GOVERNMENT RESERVES THE RIGHT TO VERIFY ANY AND ALL INFORMATION ON THIS FORM.**

**CONTROL #: W912PP23R0009**

*ADJECTIVE RATINGS AND DEFINITIONS TO BE USED TO BEST REFLECT  
YOUR EVALUATION OF THE CONTRACTOR'S PERFORMANCE*

<b>RATING</b>	<b>DEFINITION</b>	<b>NOTE</b>
<b>(E) Exceptional</b>	Performance meets contractual requirements and exceeds many to the Government/Owner's benefit. The contractual performance of the element or sub-element being assessed was accomplished with few minor problems for which corrective actions taken by the contractor was highly effective.	An Exceptional rating is appropriate when the Contractor successfully performed multiple significant events that were of benefit to the Government/Owner. A singular benefit, however, could be of such magnitude that it alone constitutes an Exceptional rating. Also, there should have been NO significant weaknesses identified.
<b>(VG) Very Good</b>	Performance meets contractual requirements and exceeds some to the Government's/Owner's benefit. The contractual performance of the element or sub-element being assessed was accomplished with some minor problems for which corrective actions taken by the contractor were effective.	A Very Good rating is appropriate when the Contractor successfully performed a significant event that was a benefit to the Government/Owner. There should have been no significant weaknesses identified.
<b>(S) Satisfactory</b>	Performance meets minimum contractual requirements. The contractual performance of the element or sub-element contains some minor problems for which corrective actions taken by the contractor appear or were satisfactory.	A Satisfactory rating is appropriate when there were only minor problems, or major problems that the contractor recovered from without impact to the contract. There should have been NO significant weaknesses identified. Per DOD policy, a fundamental principle of assigning ratings is that contractors will not be assessed a rating lower than Satisfactory solely for not performing beyond the requirements of the contract.
<b>(M) Marginal</b>	Performance does not meet some contractual requirements. The contractual performance of the element or sub-element being assessed reflects a serious problem for which the contractor has not yet identified corrective actions. The contractor's proposed actions appear only marginally effective or were not fully implemented.	A Marginal is appropriate when a significant event occurred that the contractor had trouble overcoming which impacted the Government/Owner.
<b>(U) Unsatisfactory</b>	Performance does not meet most contractual requirements and recovery is not likely in a timely manner. The contractual performance of the element or sub-element contains serious problem(s) for which the contractor's corrective actions appear or were ineffective.	An Unsatisfactory rating is appropriate when multiple significant events occurred that the contractor had trouble overcoming and which impacted the Government/Owner. A singular problem, however, could be of such serious magnitude that it alone constitutes an unsatisfactory rating.
<b>(N) Not Applicable</b>	No information or did not apply to your contract	Rating will be neither positive nor negative.

**TO BE COMPLETED BY CLIENT**

**PLEASE CIRCLE THE ADJECTIVE RATING WHICH BEST REFLECTS  
YOUR EVALUATION OF THE CONTRACTOR'S PERFORMANCE.**

<b>1. QUALITY:</b>	
a) Quality of technical data/report preparation efforts	E   VG   S   M   U   N
b) Ability to meet quality standards specified for technical performance	E   VG   S   M   U   N
c) Timeliness/effectiveness of contract problem resolution without extensive customer guidance	E   VG   S   M   U   N
d) Adequacy/effectiveness of quality control program and adherence to contract quality assurance requirements (without adverse effect on performance)	E   VG   S   M   U   N
<b>2. SCHEDULE/TIMELINESS OF PERFORMANCE:</b>	
a) Compliance with contract delivery/completion schedules including any significant intermediate milestones. <i>(If liquidated damages were assessed or the schedule was not met, please address below)</i>	E   VG   S   M   U   N
b) Rate the contractor's use of available resources to accomplish tasks identified in the contract	E   VG   S   M   U   N
<b>3. CUSTOMER SATISFACTION:</b>	
a) To what extent were the end users satisfied with the project?	E   VG   S   M   U   N
b) Contractor was reasonable and cooperative in dealing with your staff (including the ability to successfully resolve disagreements/disputes; responsiveness to administrative reports, businesslike and communication)	E   VG   S   M   U   N
c) To what extent was the contractor cooperative, businesslike, and concerned with the interests of the customer?	E   VG   S   M   U   N
d) Overall customer satisfaction	E   VG   S   M   U   N
<b>4. MANAGEMENT/ PERSONNEL/LABOR</b>	
a) Effectiveness of on-site management, including management of subcontractors, suppliers, materials, and/or labor force?	E   VG   S   M   U   N
b) Ability to hire, apply, and retain a qualified workforce to this effort	E   VG   S   M   U   N
c) Government Property Control	E   VG   S   M   U   N
d) Knowledge/expertise demonstrated by contractor personnel	E   VG   S   M   U   N
e) Utilization of Small Business concerns	E   VG   S   M   U   N
f) Ability to simultaneously manage multiple projects with multiple disciplines	E   VG   S   M   U   N
g) Ability to assimilate and incorporate changes in requirements and/or priority, including planning, execution and response to Government changes	E   VG   S   M   U   N
h) Effectiveness of overall management (including ability to effectively lead, manage and control the program)	E   VG   S   M   U   N
<b>5. COST/FINANCIAL MANAGEMENT</b>	
a) Ability to meet the terms and conditions within the contractually agreed price(s)?	E   VG   S   M   U   N
b) Contractor proposed innovative alternative methods/processes that reduced cost, improved maintainability or other factors that benefited the client	E   VG   S   M   U   N
c) If this is/was a Government cost type contract, please rate the Contractor's timeliness and accuracy in submitting monthly invoices with appropriate back-up documentation, monthly status reports/budget variance reports, compliance with established budgets and avoidance of significant and/or unexplained variances (under runs or overruns)	E   VG   S   M   U   N

d) Is the Contractor's accounting system adequate for management and tracking of costs? <i>If no, please explain in Remarks section.</i>	Yes	No
e) If this is/was a Government contract, has/was this contract been partially or completely terminated for default or convenience or are there any pending terminations? <i>Indicate if show cause or cure notices were issued, or any default action in comment section below.</i>	Yes	No
f) Have there been any indications that the contractor has had any financial problems? <i>If yes, please explain below.</i>	Yes	No
<b>6. SAFETY/SECURITY</b>		
a) To what extent was the contractor able to maintain an environment of safety, adhere to its approved safety plan, and respond to safety issues? (Includes: following the users rules, regulations, and requirements regarding housekeeping, safety, correction of noted deficiencies, etc.)	E	VG S M U N
b) Contractor complied with all security requirements for the project and personnel security requirements.	E	VG S M U N
<b>7. GENERAL</b>		
a) Ability to successfully respond to emergency and/or surge situations (including notifying COR, PM or Contracting Officer in a timely manner regarding urgent contractual issues).	E	VG S M U N
b) Compliance with contractual terms/provisions ( <i>explain if specific issues</i> )	E	VG S M U N
c) Would you hire or work with this firm again? ( <i>If no, please explain below</i> )	Yes	No
d) In summary, provide an overall rating for the work performed by this contractor.	E	VG S M U N

**Please provide responses to the questions above (*if applicable*) and/or additional remarks. Furthermore, please provide a brief narrative addressing specific strengths, weaknesses, deficiencies, or other comments which may assist our office in evaluating performance risk (*please attach additional pages if necessary*):**

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**FINANCIAL STANDING QUESTIONNAIRE**

Solicitation W912PP23R0009, CRH ADAL PHII Simulator Facility, Kirtland Air Force Base, Bernalillo County, New Mexico

A primary consideration in our selection process is an affirmation determination of the contractor's responsibility, qualification, and financial standing. Prior to awarding a contract, per the Federal Acquisition Regulation (FAR) Part 9, the U.S. Army Corps of Engineers must determine through acceptable evidence that the contractor has adequate financial resources to perform the contract, or the ability to obtain the financial resources, or proposes to perform the contract by subcontracting.

Please make every effort to be thorough in your answers/comments and include the completed questionnaire in your proposal.

Please contact Karen Irving, Contract Specialist, [karen.k.irving@usace.army.mil](mailto:karen.k.irving@usace.army.mil) with any questions or concerns.

**A. GENERAL INFORMATION**

Contractor Name:

Point of Contact:

Telephone:

Email:

**B. RESPONDENT INFORMATION (Person completing this form)**

Name and Title:

Organization and

Address:

Telephone/Fax:

Email:

1. Does the contractor have an active account with your financial institution?
2. How long has this account been active?
3. What is their average balance (digits only)?
4. How many returns (insufficient funds) has the contractor had in the last 12 months?
5. How many loans does the contractor currently have outstanding?
6. Has the vendor been able to meet their financial obligations on time?
7. Do they have a line of credit? If so, what is that amount (digits only)?

**NOTE:** The financial questionnaire is to be **"COMPLETED BY YOUR FINANCIAL INSTITUTION."**

Please return the completed document with an affixed bank seal and signature of the referenced individual on the questionnaire. Failure to provide the requested information will result in exclusion from further consideration.

Section 00 45 00 - Representations and Certifications

REPS & CERTS

THIS DOCUMENT IS TO BE EXECUTED AND SUBMITTED WITH YOUR OFFER.

REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS OF OFFEROR

RFP NO. **W912PP23R0009**

PROJECT NAME/LOCATION: FY20 Combat Rescue Helicopter (CRH) Simulator ADAL, KAFB, Bernalillo County, NM

OFFEROR'S NAME AND ADDRESS

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Date: \_\_\_\_\_

The Offeror makes the following representations and certifications as a part of the RFP identified above (check the appropriate boxes that follow):

## CLAUSES INCORPORATED BY REFERENCE

52.209-7	Information Regarding Responsibility Matters	OCT 2018
52.236-28	Preparation of Proposals--Construction	OCT 1997
252.203-7005	Representation Relating to Compensation of Former DoD Officials	SEP 2022
252.204-7008	Compliance With Safeguarding Covered Defense Information Controls	OCT 2016
252.204-7016	Covered Defense Telecommunications Equipment or Services -- Representation	DEC 2019
252.225-7973 (Dev)	Prohibition on the Procurement of Foreign-Made Unmanned Aircraft Systems - Representation (DEVIATION 2020-O0015)	MAY 2020
252.232-7016	Notice of Progress Payments or Performance-Based Payments	APR 2020
252.244-7001	Contractor Purchasing System Administration	MAY 2014

## CLAUSES INCORPORATED BY FULL TEXT

## 52.204-8 ANNUAL REPRESENTATIONS AND CERTIFICATIONS (MAY 2022)

- (a)(1) The North American Industry Classification System (NAICS) code for this acquisition is 236220.
- (2) The small business size standard is \$39,500,000.
- (3) The small business size standard for a concern that submits an offer, other than on a construction or service acquisition, but proposes to furnish an end item that it did not itself manufacture, process, or produce is 500 employees if the acquisition--
- (i) Is set aside for small business and has a value above the simplified acquisition threshold;
- (ii) Uses the HUBZone price evaluation preference regardless of dollar value, unless the offeror waives the price evaluation preference; or
- (iii) Is an 8(a), HUBZone, service-disabled veteran-owned, economically disadvantaged women-owned, or women-owned small business set-aside or sole-source award regardless of dollar value.
- (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, System for Award Management, is not included in this solicitation, and the Offeror has an active registration in the System for Award Management (SAM), 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) 52.204-26, Covered Telecommunications Equipment or Services--Representation. This provision applies to all solicitations.

(vii) 52.209-2, Prohibition on Contracting with Inverted Domestic Corporations--Representation.

(viii) 52.209-5, Certification Regarding Responsibility Matters. This provision applies to solicitations where the contract value is expected to exceed the simplified acquisition threshold.

(ix) 52.209-11, Representation by Corporations Regarding Delinquent Tax Liability or a Felony Conviction under any Federal Law. This provision applies to all solicitations.

(x) 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.

(xi) 52.215-6, Place of Performance. This provision applies to solicitations unless the place of performance is specified by the Government.

(xii) 52.219-1, Small Business Program Representations (Basic, Alternates I, and II). This provision applies to solicitations when the contract is for supplies to be delivered or services to be performed in the United States or its outlying areas, or when the contracting officer has applied part 19 in accordance with 19.000(b)(1)(ii).

(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.

(C) The provision with its Alternate II applies to solicitations that will result in a multiple-award contract with more than one NAICS code assigned.

(xiii) 52.219-2, Equal Low Bids. This provision applies to solicitations when contracting by sealed bidding and the contract is for supplies to be delivered or services to be performed in the United States or its outlying areas, or when the contracting officer has applied part 19 in accordance with 19.000(b)(1)(ii).

(xiv) 52.222-22, Previous Contracts and Compliance Reports. This provision applies to solicitations that include the clause at 52.222-26, Equal Opportunity.

(xv) 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.

(xvi) 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 products or commercial services.

(xvii) 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.

(xviii) 52.223-4, Recovered Material Certification. This provision applies to solicitations that are for, or specify the use of, EPA- designated items.

(xix) 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.)

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

(xxi) 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 \$92,319, the provision with its Alternate II applies.

(D) If the acquisition value is \$92,319 or more but is less than \$100,000, the provision with its Alternate III applies.

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

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

(xxiv) 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.

(xxv) 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.]

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

X (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 in SAM accessed through <https://www.sam.gov>. After reviewing the SAM 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)

#### 52.204-24 REPRESENTATION REGARDING CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT (NOV 2021)

The Offeror shall not complete the representation at paragraph (d)(1) of 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 paragraph (c)(1) in the provision at 52.204-26, Covered Telecommunications Equipment or Services-- Representation, or in paragraph (v)(2)(i) of the provision at 52.212-3, Offeror Representations and Certifications- Commercial Products and Commercial Services. The Offeror shall not complete the representation in paragraph (d)(2) of this provision if the Offeror has represented that it "does not use covered telecommunications equipment or services, or any equipment, system, or service that uses covered telecommunications equipment or services" in paragraph (c)(2) of the provision at 52.204-26, or in paragraph (v)(2)(ii) of the provision at 52.212-3.

(a) Definitions. As used in this provision-

Backhaul, covered telecommunications equipment or services, critical technology, interconnection arrangements, reasonable inquiry, roaming, and substantial or essential component have the meanings provided in the clause 52.204-25, Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment.

(b) Prohibition.

(1) 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. Nothing in the prohibition shall be construed to--

(i) Prohibit the head of an executive agency from procuring with an entity to provide a service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or

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

(2) Section 889(a)(1)(B) 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, 2020, from entering into a contract or extending or renewing a contract with an entity that uses 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. This prohibition applies to the use of covered telecommunications equipment or services, regardless of whether that use is in performance of work under a Federal contract. Nothing in the prohibition shall be construed to--

(i) Prohibit the head of an executive agency from procuring with an entity to provide a service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or

(ii) Cover telecommunications equipment that cannot route or redirect user data traffic or cannot 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) Representations. The Offeror represents that--

(1) 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. The Offeror shall provide the additional disclosure information required at paragraph (e)(1) of this section if the Offeror responds "will" in paragraph (d)(1) of this section; and

(2) After conducting a reasonable inquiry, for purposes of this representation, the Offeror represents that--

It [ \_\_\_\_ ] does, [ \_\_\_\_ ] does not use covered telecommunications equipment or services, or use any equipment, system, or service that uses covered telecommunications equipment or services. The Offeror shall provide the additional disclosure information required at paragraph (e)(2) of this section if the Offeror responds "does" in paragraph (d)(2) of this section.

(e) Disclosures.

(1) Disclosure for the representation in paragraph (d)(1) of this provision. If the Offeror has responded "will" in the representation in paragraph (d)(1) of this provision, the Offeror shall provide the following information as part of the offer:

(i) For covered equipment--

(A) The entity that produced the covered telecommunications equipment (include entity name, unique entity identifier, CAGE code, and whether the entity was the original equipment manufacturer (OEM) or a distributor, if known);

(B) A description of all covered telecommunications equipment offered (include brand; model number, such as OEM number, manufacturer part number, or wholesaler number; and item description, as applicable); and

(C) Explanation of the proposed use of covered telecommunications equipment and any factors relevant to determining if such use would be permissible under the prohibition in paragraph (b)(1) of this provision.

(ii) For covered services--

(A) If the service is related to item maintenance: A description of all covered telecommunications services offered (include on the item being maintained: Brand; model number, such as OEM number, manufacturer part number, or wholesaler number; and item description, as applicable); or

(B) If not associated with maintenance, the Product Service Code (PSC) of the service being provided; and explanation of the proposed use of covered telecommunications services and any factors relevant to determining if such use would be permissible under the prohibition in paragraph (b)(1) of this provision.

(2) Disclosure for the representation in paragraph (d)(2) of this provision. If the Offeror has responded "does" in the representation in paragraph (d)(2) of this provision, the Offeror shall provide the following information as part of the offer:

(i) For covered equipment--

(A) 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);

(B) A description of all covered telecommunications equipment offered (include brand; model number, such as OEM number, manufacturer part number, or wholesaler number; and item description, as applicable); and

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

(ii) For covered services--

(A) If the service is related to item maintenance: A description of all covered telecommunications services offered (include on the item being maintained: Brand; model number, such as OEM number, manufacturer part number, or wholesaler number; and item description, as applicable); or

(B) If not associated with maintenance, the PSC of the service being provided; and explanation of the proposed use of covered telecommunications services and any factors relevant to determining if such use would be permissible under the prohibition in paragraph (b)(2) of this provision.

(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 (NOV 2021)

(a) This provision does not apply to acquisitions at or below the simplified acquisition threshold or to acquisitions of commercial products and commercial services as defined in Federal Acquisition Regulation 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 at <https://www.state.gov/bureaus-offices/under-secretary-for-arms-control-and-international-security-affairs/bureau-of-arms-control-verification-and-compliance/>; 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 at <https://www.state.gov/bureaus-offices/under-secretary-for-arms-control-and-international-security-affairs/bureau-of-arms-control-verification-and-compliance/>; 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](mailto: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 (SEP 2021) - ALTERNATE I (SEPT 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--

(1) 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.



(2) Affiliates, as used in this definition, means business concerns, one of whom directly or indirectly controls or has the power to control the others, or a third party or parties control or have the power to control the others. In determining whether affiliation exists, consideration is given to all appropriate factors including common ownership, common management, and contractual relationships. SBA determines affiliation based on the factors set forth at 13 CFR 121.103.

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 236220.

(2) The small business size standard is \$39,500,000.

(3) The small business size standard for a concern that submits an offer, other than on a construction or service acquisition, but proposes to furnish an end item that it did not itself manufacture, process, or produce (i.e., nonmanufacturer), is 500 employees if the acquisition--

(i) Is set aside for small business and has a value above the simplified acquisition threshold;

(ii) Uses the HUBZone price evaluation preference regardless of dollar value, unless the offeror waives the price evaluation preference; or

(iii) Is an 8(a), HUBZone, service-disabled veteran-owned, economically disadvantaged women-owned, or women-owned small business set-aside or sole-source award regardless of dollar value.

(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 it [ \_\_\_\_ ] 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.

(d) Notice. 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—

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

(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.

(End of provision)

## 52.229-11 TAX ON CERTAIN FOREIGN PROCUREMENTS--NOTICE AND REPRESENTATION (JUN 2020)

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

Foreign person means any person other than a United States person.

Specified Federal procurement payment means any payment made pursuant to a contract with a foreign contracting party that is for goods, manufactured or produced, or services provided in a foreign country that is not a party to an international procurement agreement with the United States. For purposes of the prior sentence, a foreign country does not include an outlying area.

United States person as defined in 26 U.S.C. 7701(a)(30) means--

- (1) A citizen or resident of the United States;
- (2) A domestic partnership;

- (3) A domestic corporation;
  - (4) Any estate (other than a foreign estate, within the meaning of 26 U.S.C. 701(a)(31)); and
  - (5) Any trust if--
    - (i) A court within the United States is able to exercise primary supervision over the administration of the trust; and
    - (ii) One or more United States persons have the authority to control all substantial decisions of the trust.
  - (b) Unless exempted, there is a 2 percent tax of the amount of a specified Federal procurement payment on any foreign person receiving such payment. See 26 U.S.C. 5000C and its implementing regulations at 26 CFR 1.5000C-1 through 1.5000C-7.
  - (c) Exemptions from withholding under this provision are described at 26 CFR 1.5000C-1(d)(5) through (7). The Offeror would claim an exemption from the withholding by using the Department of the Treasury Internal Revenue Service Form W-14, Certificate of Foreign Contracting Party Receiving Federal Procurement Payments, available via the internet at [www.irs.gov/w14](http://www.irs.gov/w14). Any exemption claimed and self-certified on the IRS Form W-14 is subject to audit by the IRS. Any disputes regarding the imposition and collection of the 26 U.S.C. 5000C tax are adjudicated by the IRS as the 26 U.S.C. 5000C tax is a tax matter, not a contract issue. The IRS Form W-14 is provided to the acquiring agency rather than to the IRS.
  - (d) For purposes of withholding under 26 U.S.C. 5000C, the Offeror represents that--
    - (1) It ☐ is ☐ is not a foreign person; and
    - (2) If the Offeror indicates ``is" in paragraph (d)(1) of this provision, then the Offeror represents that--I am claiming on the IRS Form W-14 ☐ a full exemption, or ☐ partial or no exemption [Offeror shall select one] from the excise tax.
  - (e) If the Offeror represents it is a foreign person in paragraph (d)(1) of this provision, then--
    - (1) The clause at FAR 52.229-12, Tax on Certain Foreign Procurements, will be included in any resulting contract; and
    - (2) The Offeror shall submit with its offer the IRS Form W-14. If the IRS Form W-14 is not submitted with the offer, exemptions will not be applied to any resulting contract and the Government will withhold a full 2 percent of each payment.
  - (f) If the Offeror selects ``is" in paragraph (d)(1) and ``partial or no exemption" in paragraph (d)(2) of this provision, the Offeror will be subject to withholding in accordance with the clause at FAR 52.229-12, Tax on Certain Foreign Procurements, in any resulting contract.
  - (g) A taxpayer may, for a fee, seek advice from the Internal Revenue Service (IRS) as to the proper tax treatment of a transaction. This is called a private letter ruling. Also, the IRS may publish a revenue ruling, which is an official interpretation by the IRS of the Internal Revenue Code, related statutes, tax treaties, and regulations. A revenue ruling is the conclusion of the IRS on how the law is applied to a specific set of facts. For questions relating to the interpretation of the IRS regulations go to <https://www.irs.gov/help/tax-law-questions>.
- (End of provision)

## 252.204-7007 ALTERNATE A, ANNUAL REPRESENTATIONS AND CERTIFICATIONS (MAY 2021)

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

(b)(1) If the provision at FAR 52.204-7, System for Award Management, is included in this solicitation, paragraph (e) of this provision applies.

(2) If the provision at FAR 52.204-7, System for Award Management, is not included in this solicitation, and the Offeror has an active registration in the System for Award Management (SAM), the Offeror may choose to use paragraph (e) 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:

☐ (i) Paragraph (e) applies.

☐ (ii) Paragraph (e) does not apply and the Offeror has completed the individual representations and certifications in the solicitation.

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

(i) 252.204-7016, Covered Defense Telecommunications Equipment or Services--Representation. Applies to all solicitations.

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

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

(v) 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.

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

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

(viii) 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.

X (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.

\_\_\_ (vi) 252.226-7002, Representation for Demonstration Project for Contractors Employing Persons with Disabilities.

\_\_\_ (vii) 252.232-7015, Performance-Based Payments--Representation.

(e) The Offeror has completed the annual representations and certifications electronically via the SAM website 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 provision No.	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)

#### 252.204-7017 PROHIBITION ON THE ACQUISITION OF COVERED DEFENSE TELECOMMUNICATIONS EQUIPMENT OR SERVICES--REPRESENTATION (MAY 2021)

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)

#### 252.204-7019 NOTICE OF NIST SP 800-171 DOD ASSESSMENT REQUIREMENTS (MAR 2022)

(a) Definitions.

Basic Assessment, Medium Assessment, and High Assessment have the meaning given in the clause 252.204-7020, NIST SP 800-171 DoD Assessments.

Covered contractor information system has the meaning given in the clause 252.204-7012, Safeguarding Covered Defense Information and Cyber Incident Reporting, of this solicitation.

(b) Requirement. In order to be considered for award, if the Offeror is required to implement NIST SP 800-171, the Offeror shall have a current assessment (i.e., not more than 3 years old unless a lesser time is specified in the solicitation) (see 252.204-7020) for each covered contractor information system that is relevant to the offer, contract, task order, or delivery order. The Basic, Medium, and High NIST SP 800-171 DoD Assessments are described in the NIST SP 800-171 DoD Assessment Methodology located at <https://www.acq.osd.mil/asda/dpc/cp/cyber/safeguarding.html#nistSP800171>.

(c) Procedures.

(1) The Offeror shall verify that summary level scores of a current NIST SP 800-171 DoD Assessment (i.e., not more than 3 years old unless a lesser time is specified in the solicitation) are posted in the Supplier Performance Risk System (SPRS) (<https://www.sprs.csd.disa.mil/>) for all covered contractor information systems relevant to the offer.

(2) If the Offeror does not have summary level scores of a current NIST SP 800-171 DoD Assessment (i.e., not more than 3 years old unless a lesser time is specified in the solicitation) posted in SPRS, the Offeror may conduct and submit a Basic Assessment to [webptsmh@navy.mil](mailto:webptsmh@navy.mil) for posting to SPRS in the format identified in paragraph (d) of this provision.

(d) Summary level scores. Summary level scores for all assessments will be posted 30 days post-assessment in SPRS to provide DoD Components visibility into the summary level scores of strategic assessments.

(1) Basic Assessments. An Offeror may follow the procedures in paragraph (c)(2) of this provision for posting Basic Assessments to SPRS.

(i) The email shall include the following information:

(A) Cybersecurity standard assessed (e.g., NIST SP 800-171 Rev 1).

(B) Organization conducting the assessment (e.g., Contractor self-assessment).

(C) For each system security plan (security requirement 3.12.4) supporting the performance of a DoD contract--

(1) All industry Commercial and Government Entity (CAGE) code(s) associated with the information system(s) addressed by the system security plan; and

(2) A brief description of the system security plan architecture, if more than one plan exists.

(D) Date the assessment was completed.

(E) Summary level score (e.g., 95 out of 110, NOT the individual value for each requirement).

(F) Date that all requirements are expected to be implemented (i.e., a score of 110 is expected to be achieved) based on information gathered from associated plan(s) of action developed in accordance with NIST SP 800-171.

(ii) If multiple system security plans are addressed in the email described at paragraph (d)(1)(i) of this section, the Offeror shall use the following format for the report:

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System security plan	CAGE codes supported by this plan	Brief description of the plan architecture	Date of assessment	Total score	Date score of 110 will be achieved

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\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

(2) Medium and High Assessments. DoD will post the following Medium and/or High Assessment summary level scores to SPRS for each system assessed:

- (i) The standard assessed (e.g., NIST SP 800-171 Rev 1).
- (ii) Organization conducting the assessment, e.g., DCMA, or a specific organization (identified by Department of Defense Activity Address Code (DoDAAC)).
- (iii) All industry CAGE code(s) associated with the information system(s) addressed by the system security plan.
- (iv) A brief description of the system security plan architecture, if more than one system security plan exists.
- (v) Date and level of the assessment, i.e., medium or high.
- (vi) Summary level score (e.g., 105 out of 110, not the individual value assigned for each requirement).
- (vii) Date that all requirements are expected to be implemented (i.e., a score of 110 is expected to be achieved) based on information gathered from associated plan(s) of action developed in accordance with NIST SP 800-171.

(3) Accessibility.

(i) Assessment summary level scores posted in SPRS are available to DoD personnel, and are protected, in accordance with the standards set forth in DoD Instruction 5000.79, Defense-wide Sharing and Use of Supplier and Product Performance Information (PI).

(ii) Authorized representatives of the Offeror for which the assessment was conducted may access SPRS to view their own summary level scores, in accordance with the SPRS Software User's Guide for Awardees/Contractors available at [https://www.sprs.csd.disa.mil/pdf/SPRS\\_Awardee.pdf](https://www.sprs.csd.disa.mil/pdf/SPRS_Awardee.pdf).

(iii) A High NIST SP 800-171 DoD Assessment may result in documentation in addition to that listed in this section. DoD will retain and protect any such documentation as "Controlled Unclassified Information (CUI)" and intended for internal DoD use only. The information will be protected against unauthorized use and release, including through the exercise of applicable exemptions under the Freedom of Information Act (e.g., Exemption 4 covers trade secrets and commercial or financial information obtained from a contractor that is privileged or confidential).

(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)

## Section 00 50 00 - Contracting Forms and Supplements

WAGE RATES - ROOFER  
ATTENTION

The proper Building Wage Determination for Bernalillo County is incorporated into this procurement; however, the wage determination does not include a “roofer” classification. Therefore, the most recent version of the Standard Form 1444 (Request for Authorization of Additional Classification and Rate) will need to be submitted upon award to the Albuquerque District for approval and forwarding to the Wage and Hour Division (WHD) of the Department of Labor.

In previous awards, WHD set the prevailing rate at \$45.73 per hour (\$33.05 plus \$12.68 fringe). Potential offerors in the solicitation phase and subsequently the successful awardee should carefully review the wage determination for potential additional classifications and evaluate how submission of a Standard Form 1444 will affect their pricing.

Please visit <https://sam.gov/content/wage-determinations/resources/dba-conformances> and read Department of Labor’s All Agency Memorandum 213 and 233 for further guidance.

"General Decision Number: NM20220044 10/07/2022

Superseded General Decision Number: NM20210044

State: New Mexico

Construction Type: Building

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

County: Bernalillo County in New Mexico.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

If the contract is entered   into on or after January 30,   2022, or the contract is   renewed or extended (e.g., an   option is exercised) on or   after January 30, 2022:             	. Executive Order 14026   generally applies to the   contract.   . The contractor must pay   all covered workers at   least \$15.00 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 2022. 
If the contract was awarded on   or between January 1, 2015 and   January 29, 2022, and the   contract is not renewed or   extended on or after January   30, 2022:             	. Executive Order 13658   generally applies to the   contract.   . The contractor must pay all   covered workers at least   \$11.25 per hour (or the   applicable wage rate listed   on this wage determination,   if it is higher) for all   hours spent performing on   that contract in 2022. 

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this

wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Modification Number	Publication Date
0	01/07/2022
1	02/18/2022
2	02/25/2022
3	04/01/2022
4	10/07/2022

\* ASBE0076-008 07/01/2022

	Rates	Fringes
ASBESTOS WORKER/HEAT & FROST INSULATOR.....	\$ 35.26	11.73

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CARP1505-001 06/01/2018

	Rates	Fringes
CARPENTER (Includes Drywall Finishing/Taping, Drywall Hanging, and Metal Stud Installation (Excludes Form Work)).....	\$ 24.08	10.79

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ELEC0611-022 01/01/2022

	Rates	Fringes
ELECTRICIAN.....	\$ 35.20	12.56

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ELEV0131-002 01/01/2022

	Rates	Fringes
ELEVATOR MECHANIC.....	\$ 46.83	36.885+a+b

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IRON0495-002 01/01/2021

	Rates	Fringes
IRONWORKER, STRUCTURAL.....	\$ 27.35	17.30

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LABO0016-002 06/01/2018

	Rates	Fringes
LABORER (Mason Tender - Cement/Concrete).....	\$ 17.25	6.01

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 PLAS0254-001 03/18/2021

	Rates	Fringes
PLASTERER.....	\$ 23.56	9.39

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PLUM0412-014 01/01/2022

	Rates	Fringes
PIPEFITTER.....	\$ 36.40	13.90
PLUMBER (Includes HVAC Pipe Installation).....	\$ 36.40	13.90

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SFNM0669-001 04/01/2021

	Rates	Fringes
SPRINKLER FITTER (Fire Sprinklers).....	\$ 32.67	23.21

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SHEE0049-004 01/01/2021

	Rates	Fringes
Sheet Metal Worker (Including HVAC Duct and Unit Installation).....	\$ 33.38	15.62

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SUNM2016-001 09/26/2018

	Rates	Fringes
CARPENTER (Form Work Only).....	\$ 20.41	6.25
CEMENT MASON/CONCRETE FINISHER...	\$ 18.59	7.45
GLAZIER.....	\$ 20.15	3.48
LABORER: Common or General.....	\$ 15.70	4.86
OPERATOR: Backhoe/Excavator/Trackhoe.....	\$ 25.97	5.15
PAINTER (Brush and Roller).....	\$ 16.51	2.14
PAINTER: Spray.....	\$ 16.51	2.14

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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 <https://www.dol.gov/agencies/whd/government-contracts>.

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)).

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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.

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### 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 National Office because National Office has 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.

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END OF GENERAL DECISIO"

## Section 00 70 00 - Conditions of the Contract

## CLAUSES INCORPORATED BY REFERENCE

52.202-1	Definitions	JUN 2020
52.203-3	Gratuities	APR 1984
52.203-5	Covenant Against Contingent Fees	MAY 2014
52.203-6	Restrictions On Subcontractor Sales To The Government	JUN 2020
52.203-7	Anti-Kickback Procedures	JUN 2020
52.203-8	Cancellation, Rescission, and Recovery of Funds for Illegal or Improper Activity	MAY 2014
52.203-10	Price Or Fee Adjustment For Illegal Or Improper Activity	MAY 2014
52.203-12	Limitation On Payments To Influence Certain Federal Transactions	JUN 2020
52.203-13	Contractor Code of Business Ethics and Conduct	NOV 2021
52.203-17	Contractor Employee Whistleblower Rights and Requirement To Inform Employees of Whistleblower Rights	JUN 2020
52.203-19	Prohibition on Requiring Certain Internal Confidentiality Agreements or Statements	JAN 2017
52.204-2 Alt II	Security Requirements (MAR 2021) - Alternate II	APR 1984
52.204-4	Printed or Copied Double-Sided on Postconsumer Fiber Content Paper	MAY 2011
52.204-9	Personal Identity Verification of Contractor Personnel	JAN 2011
52.204-10	Reporting Executive Compensation and First-Tier Subcontract Awards	JUN 2020
52.204-13	System for Award Management Maintenance	OCT 2018
52.204-18	Commercial and Government Entity Code Maintenance	AUG 2020
52.204-21	Basic Safeguarding of Covered Contractor Information Systems	NOV 2021
52.204-23	Prohibition on Contracting for Hardware, Software, and Services Developed or Provided by Kaspersky Lab and Other Covered Entities	NOV 2021
52.204-25	Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment	NOV 2021
52.209-6	Protecting the Government's Interest When Subcontracting With Contractors Debarred, Suspended, or Proposed for Debarment	NOV 2021
52.209-9	Updates of Publicly Available Information Regarding Responsibility Matters	OCT 2018
52.209-10	Prohibition on Contracting With Inverted Domestic Corporations	NOV 2015
52.210-1	Market Research	NOV 2021
52.211-13	Time Extensions	SEP 2000
52.211-15	Defense Priority And Allocation Requirements	APR 2008
52.211-18	Variation in Estimated Quantity	APR 1984
52.215-2	Audit and Records--Negotiation	JUN 2020
52.215-11 (Dev)	Price Reduction for Defective Certified Cost or Pricing Data-- Modifications (DEVIATION 2022-O0001)	OCT 2021
52.215-17	Waiver of Facilities Capital Cost of Money	OCT 1997
52.215-21	Requirements for Certified Cost or Pricing Data and Data Other Than Certified Cost or Pricing Data -- Modifications	NOV 2021

52.219-4	Notice of Price Evaluation Preference for HUBZone Small Business Concerns	OCT 2022
52.219-8	Utilization of Small Business Concerns	OCT 2022
52.219-9 Alt II	Small Business Subcontracting Plan (OCT 2022) Alternate II	NOV 2016
52.219-16	Liquidated Damages-Subcontracting Plan	SEP 2021
52.222-1	Notice To The Government Of Labor Disputes	FEB 1997
52.222-3	Convict Labor	JUN 2003
52.222-4	Contract Work Hours and Safety Standards - Overtime Compensation	MAY 2018
52.222-6	Construction Wage Rate Requirements	AUG 2018
52.222-7	Withholding of Funds	MAY 2014
52.222-8	Payrolls and Basic Records	JUL 2021
52.222-9	Apprentices and Trainees	JUL 2005
52.222-10	Compliance with Copeland Act Requirements	FEB 1988
52.222-11	Subcontracts (Labor Standards)	MAY 2014
52.222-12	Contract Termination-Debarment	MAY 2014
52.222-13	Compliance With Construction Wage Rate Requirements and Related Regulations	MAY 2014
52.222-14	Disputes Concerning Labor Standards	FEB 1988
52.222-15	Certification of Eligibility	MAY 2014
52.222-21	Prohibition Of Segregated Facilities	APR 2015
52.222-26	Equal Opportunity	SEP 2016
52.222-27	Affirmative Action Compliance Requirements for Construction	APR 2015
52.222-37	Employment Reports on Veterans	JUN 2020
52.222-40	Notification of Employee Rights Under the National Labor Relations Act	DEC 2010
52.222-50	Combating Trafficking in Persons	NOV 2021
52.222-54	Employment Eligibility Verification	MAY 2022
52.223-5	Pollution Prevention and Right-to-Know Information	MAY 2011
52.223-6	Drug-Free Workplace	MAY 2001
52.223-10	Waste Reduction Program	MAY 2011
52.223-11	Ozone-Depleting Substances and High Global Warming Potential Hydrofluorocarbons.	JUN 2016
52.223-17	Affirmative Procurement of EPA-Designated Items in Service and Construction Contracts	AUG 2018
52.223-18	Encouraging Contractor Policies To Ban Text Messaging While Driving	JUN 2020
52.225-13	Restrictions on Certain Foreign Purchases	FEB 2021
52.226-1	Utilization Of Indian Organizations And Indian-Owned Economic Enterprises	JUN 2000
52.227-1	Authorization and Consent	JUN 2020
52.227-2	Notice And Assistance Regarding Patent And Copyright Infringement	JUN 2020
52.227-4	Patent Indemnity-Construction Contracts	DEC 2007
52.228-2	Additional Bond Security	OCT 1997
52.228-5	Insurance - Work On A Government Installation	JAN 1997
52.228-11 (Dev)	Individual Surety--Pledge of Assets (DEVIATION 2020-O0016)	FEB 2021
52.228-15 (Dev)	Performance and Payment Bonds-Construction. (Deviation 2020-O0016)	JUN 2020
52.229-3	Federal, State And Local Taxes	FEB 2013
52.230-3 (Dev)	Disclosure and Consistency of Cost Accounting Practices (DEVIATION 2018-O0015)	JUN 2020
52.232-5	Payments under Fixed-Price Construction Contracts	MAY 2014

52.232-17	Interest	MAY 2014
52.232-23 Alt I	Assignment of Claims (May 2014) - Alternate I	APR 1984
52.232-27	Prompt Payment for Construction Contracts	JAN 2017
52.232-33	Payment by Electronic Funds Transfer--System for Award Management	OCT 2018
52.233-1	Disputes	MAY 2014
52.233-3	Protest After Award	AUG 1996
52.236-2	Differing Site Conditions	APR 1984
52.236-3	Site Investigation and Conditions Affecting the Work	APR 1984
52.236-5	Material and Workmanship	APR 1984
52.236-6	Superintendence by the Contractor	APR 1984
52.236-7	Permits and Responsibilities	NOV 1991
52.236-8	Other Contracts	APR 1984
52.236-9	Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements	APR 1984
52.236-10	Operations and Storage Areas	APR 1984
52.236-11	Use and Possession Prior to Completion	APR 1984
52.236-12	Cleaning Up	APR 1984
52.236-13	Accident Prevention	NOV 1991
52.236-14	Availability and Use of Utility Services	APR 1984
52.236-15	Schedules for Construction Contracts	APR 1984
52.236-17	Layout of Work	APR 1984
52.236-21	Specifications and Drawings for Construction	FEB 1997
52.236-26	Preconstruction Conference	FEB 1995
52.242-5	Payments to Small Business Subcontractors	JAN 2017
52.242-13	Bankruptcy	JUL 1995
52.242-14	Suspension of Work	APR 1984
52.243-4	Changes	JUN 2007
52.244-6	Subcontracts for Commercial Products and Commercial Services	OCT 2022
52.246-12	Inspection of Construction	AUG 1996
52.246-21	Warranty of Construction	MAR 1994
52.247-34	F.O.B. Destination	NOV 1991
52.248-3 Alt I	Value Engineering-Construction (OCT 2020) - Alternate I	APR 1984
52.249-2 Alt I	Termination for Convenience of the Government (Fixed-Price) (Apr 2012) - Alternate I	SEP 1996
52.249-10	Default (Fixed-Price Construction)	APR 1984
52.253-1	Computer Generated Forms	JAN 1991
252.201-7000	Contracting Officer's Representative	DEC 1991
252.203-7000	Requirements Relating to Compensation of Former DoD Officials	SEP 2011
252.203-7001	Prohibition On Persons Convicted of Fraud or Other Defense-Contract-Related Felonies	DEC 2008
252.203-7002	Requirement to Inform Employees of Whistleblower Rights	SEP 2013
252.203-7003	Agency Office of the Inspector General	AUG 2019
252.204-7000	Disclosure Of Information	OCT 2016
252.204-7003	Control Of Government Personnel Work Product	APR 1992
252.204-7004	Antiterrorism Awareness Training for Contractors.	FEB 2019
252.204-7020	NIST SP 800-171 DoD Assessment Requirements	MAR 2022
252.205-7000	Provision Of Information To Cooperative Agreement Holders	DEC 1991
252.209-7004	Subcontracting With Firms That Are Owned or Controlled By The Government of a Country that is a State Sponsor of Terrorism	MAY 2019
252.215-7016	Notification to Offerors--Postaward Debriefings	MAR 2022
252.219-7003	Small Business Subcontracting Plan (DOD Contracts)	DEC 2019

252.222-7006	Restrictions on the Use of Mandatory Arbitration Agreements	DEC 2010
252.223-7004	Drug Free Work Force	SEP 1988
252.223-7006	Prohibition On Storage, Treatment, and Disposal of Toxic or Hazardous Materials	SEP 2014
252.223-7008	Prohibition of Hexavalent Chromium	JUN 2013
252.225-7001	Buy American And Balance Of Payments Program-- Basic	JUN 2022
252.225-7002	Qualifying Country Sources As Subcontractors	MAR 2022
252.225-7012	Preference For Certain Domestic Commodities	APR 2022
252.227-7033	Rights in Shop Drawings	APR 1966
252.232-7003	Electronic Submission of Payment Requests and Receiving Reports	DEC 2018
252.232-7010	Levies on Contract Payments	DEC 2006
252.232-7017	Accelerating Payments to Small Business Subcontractors-- Prohibition on Fees and Consideration	APR 2020
252.236-7000	Modification Proposals-Price Breakdown	DEC 1991
252.236-7013	Requirement for Competition Opportunity for American Steel Producers, Fabricators, and Manufacturers	JUN 2013
252.243-7001	Pricing Of Contract Modifications	DEC 1991
252.243-7002	Requests for Equitable Adjustment	DEC 2012
252.244-7000	Subcontracts for Commercial Items	JAN 2021
252.247-7023	Transportation of Supplies by Sea	FEB 2019

#### CLAUSES INCORPORATED BY FULL TEXT

#### 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)

#### 52.204-19 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)

#### 52.204-23 PROHIBITION ON CONTRACTING FOR HARDWARE, SOFTWARE, AND SERVICES DEVELOPED OR PROVIDED BY KASPERSKY LAB AND OTHER COVERED ENTITIES (NOV 2021)

(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 products or commercial services.

(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 10 calendar days after the date the Contractor receives the notice to proceed (NTP), (b) prosecute the work diligently, and (c) complete the entire work ready for use not later than the dates shown below . \* The time stated for completion shall include final cleanup of the premises.

Item of Work	Commencement Time in Calendar Days After Receipt of Notice to Proceed	Completion Time in Calendar Days After Receipt of Notice to Proceed	Liquidated Damages Per Calendar Day
<b><u>BASE BID</u></b>	10	670	\$3,392
(1) Total cost for Construction within 5' footprint of building 951, B, Complete			
(2) Total cost for Construction within 5' footprint of Building 923, complete			
(3) Total cost for Site Work outside 5' footprint, complete			

OPTIONAL BID ITEMS

(4) Opt No. 1: Building 923 Office and Collaboration Area	No additional time will be provided. The work shall be accomplished within the Completion Time specified for the Base Bid.	\$3,392
(5) Opt. No. 2: Building 923 Telecommunications for Formal Work Area	No additional time will be provided. The work shall be accomplished within the Completion Time specified for the Base Bid.	\$3,392
(6) Opt. No. 3: Building 923 Telecommunications for Two Offices and Two Collaboration Rooms	No additional time will be provided. The work shall be accomplished within the Completion Time specified for the Base Bid.	\$3,392
(7) Opt. No. 4: Resurfacing of Existing Parking Lot Adjacent to Building 957	If this bid option is exercised, an additional <b>30 calendar days</b> will be added to the total Completion Time which includes the base bid and exercised bid options. See Note 1.	\$3,392
(8) Opt. No. 5: Construction of Asphalt Surfaced Parking Lot with 59 POV Spaces	If this bid option is exercised, an additional <b>60 calendar days</b> will be added to the total Completion Time which includes the base bid and exercised bid options. See Note 1.	\$3,392
(9) Opt. No. 6: Building 951B Operable Panel Partition in lieu of Fixed Partition	No additional time will be provided. The work shall be accomplished within the Completion Time specified for the Base Bid.	\$3,392
(10) Opt No. 7: Building 923 Informal Work Area (Demolition)	No additional time will be provided. The work shall be accomplished within the Completion Time specified for the Base Bid.	\$3,392
(11) Opt. No. 8: Building 923 Informal Work Area (New Work)	No additional time will be provided. The work shall be accomplished within the Completion Time specified for the Base Bid.	\$3,392
(12) Opt No. 9: Building 923 Informal Work Area (Complete Renovation)	If this bid option is exercised, an additional <b>10 calendar days</b> will be added to the total Completion Time which includes the base bid and exercised bid options. See Note 1.	\$3,392
(13) Opt: No. 10: Building 923 Demo of Water Heater	No additional time will be provided. The work shall be accomplished within the Completion Time specified for the Base Bid.	\$3,392



Notes:

1. Total Completion Time is defined as the Completion Time in calendar days stated for the base bid plus the additional calendar days for completion associated with any exercised bid option(s). The total completion time is the time specified in the contract to complete the work.

(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 \$3,392.00 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)

#### 52.215-13 SUBCONTRACTOR CERTIFIED COST OR PRICING DATA--MODIFICATIONS (DEVIATION 2022-O0001) (OCT 2021)

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

(1) Become operative only for any modification to this contract involving a pricing adjustment expected to exceed \$2 million on the date of execution of the modification; and

(2) Be limited to such modifications.

(b) Before awarding any subcontract expected to exceed \$2 million, on the date of agreement on price or the date of award, whichever is later; or before pricing any subcontract modification involving a pricing adjustment expected to exceed \$2 million, the Contractor shall require the subcontractor to submit certified cost or pricing data (actually or by specific identification in writing), in accordance with Federal Acquisition Regulation (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 \$2 million threshold for submission of certified cost or pricing data 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 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 exceeds \$2 million on the date of agreement on price or the date of award, whichever is later.

(End of clause)

## 52.217-7 OPTION FOR INCREASED QUANTITY--SEPARATELY PRICED LINE ITEM (MAR 1989)

The Government may require the delivery of the numbered line item, identified in the Schedule as an option item, in the quantity and at the price stated in the Schedule. The Contracting Officer may exercise the option by written notice to the Contractor within 90 calendar days. Delivery of added items shall continue at the same rate that like items are called for under the contract, unless the parties otherwise agree.

(End of clause)

## 52.219-14 LIMITATIONS ON SUBCONTRACTING (SEP 2021)

(a) This clause does not apply to the unrestricted portion of a partial set-aside.

(b) Definition. Similarly situated entity, as used in this clause, means a first-tier subcontractor, including an independent contractor, that--

(1) Has the same small business program status as that which qualified the prime contractor for the award (e.g., for a small business set-aside contract, any small business concern, without regard to its socioeconomic status); and

(2) Is considered small for the size standard under the North American Industry Classification System (NAICS) code the prime contractor assigned to the subcontract.

(c) Applicability. This clause applies only to--

(1) Contracts that have been set aside for any of the small business concerns identified in 19.000(a)(3);

(2) Part or parts of a multiple-award contract that have been set aside for any of the small business concerns identified in 19.000(a)(3);

(3) Contracts that have been awarded on a sole-source basis in accordance with subparts 19.8, 19.13, 19.14, and 19.15;

(4) Orders expected to exceed the simplified acquisition threshold and that are--

(i) Set aside for small business concerns under multiple-award contracts, as described in 8.405-5 and 16.505(b)(2)(i)(F); or

(ii) Issued directly to small business concerns under multiple-award contracts as described in 19.504(c)(1)(ii);

(5) Orders, regardless of dollar value, that are--

(i) Set aside in accordance with subparts 19.8, 19.13, 19.14, or 19.15 under multiple-award contracts, as described in 8.405-5 and 16.505(b)(2)(i)(F); or

(ii) Issued directly to concerns that qualify for the programs described in subparts 19.8, 19.13, 19.14, or 19.15 under multiple-award contracts, as described in 19.504(c)(1)(ii); and

(6) Contracts using the HUBZone price evaluation preference to award to a HUBZone small business concern unless the concern waived the evaluation preference.

(d) Independent contractors. An independent contractor shall be considered a subcontractor.

(e) Limitations on subcontracting. By submission of an offer and execution of a contract, the Contractor agrees that in performance of a contract assigned a North American Industry Classification System (NAICS) code for--

(1) Services (except construction), it will not pay more than 50 percent of the amount paid by the Government for contract performance to subcontractors that are not similarly situated entities. Any work that a similarly situated entity further subcontracts will count towards the prime contractor's 50 percent subcontract amount that cannot be exceeded. When a contract includes both services and supplies, the 50 percent limitation shall apply only to the service portion of the contract;

(2) Supplies (other than procurement from a nonmanufacturer of such supplies), it will not pay more than 50 percent of the amount paid by the Government for contract performance, excluding the cost of materials, to subcontractors that are not similarly situated entities. Any work that a similarly situated entity further subcontracts will count towards the prime contractor's 50 percent subcontract amount that cannot be exceeded. When a contract includes both supplies and services, the 50 percent limitation shall apply only to the supply portion of the contract;

(3) General construction, it will not pay more than 85 percent of the amount paid by the Government for contract performance, excluding the cost of materials, to subcontractors that are not similarly situated entities. Any work that a similarly situated entity further subcontracts will count towards the prime contractor's 85 percent subcontract amount that cannot be exceeded; or

(4) Construction by special trade contractors, it will not pay more than 75 percent of the amount paid by the Government for contract performance, excluding the cost of materials, to subcontractors that are not similarly situated entities. Any work that a similarly situated entity further subcontracts will count towards the prime contractor's 75 percent subcontract amount that cannot be exceeded.

(f) The Contractor shall comply with the limitations on subcontracting as follows:

(1) For contracts, in accordance with paragraphs (c)(1), (2), (3) and (6) of this clause--

[Contracting Officer check as appropriate.]

X By the end of the base term of the contract and then by the end of each subsequent option period; or

\_\_\_ By the end of the performance period for each order issued under the contract.

(2) For orders, in accordance with paragraphs (c)(4) and (5) of this clause, by the end of the performance period for the order.

(g) A joint venture agrees that, in the performance of the contract, the applicable percentage specified in paragraph (e) of this clause will be performed by the aggregate of the joint venture participants.

(End of clause)

## 52.219-28 POST-AWARD SMALL BUSINESS PROGRAM REREPRESENTATION (SEP 2021)

(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--

(1) 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.

(2) Affiliates, as used in this definition, means business concerns, one of whom directly or indirectly controls or has the power to control the others, or a third party or parties control or have the power to control the others. In determining whether affiliation exists, consideration is given to all appropriate factors including common ownership, common management, and contractual relationships. SBA determines affiliation based on the factors set forth at 13 CFR 121.103.

(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 an end item that it does not manufacture, process, or produce itself, for a contract other than a construction or service contract, is 500 employees if the acquisition--

(1) Was set aside for small business and has a value above the simplified acquisition threshold;

(2) Used the HUBZone price evaluation preference regardless of dollar value, unless the Contractor waived the price evaluation preference; or

(3) Was an 8(a), HUBZone, service-disabled veteran-owned, economically disadvantaged women-owned, or women-owned small business set-aside or sole-source award regardless of dollar value.

(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 236220 assigned to contract number TBD.

(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)

## 52.222-35 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 (JUN 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)

## 52.222-55 MINIMUM WAGES FOR CONTRACTOR WORKERS UNDER EXECUTIVE ORDER 14026 (JAN 2022)

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

"United States" means the 50 states, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, the U.S. Virgin Islands, Johnston Island, Wake Island, and the outer Continental Shelf as defined in the Outer Continental Shelf Lands Act (43 U.S.C. 1331, et seq.).

"Worker"--

(1) (i) Means any person engaged in performing work on, or in connection with, a contract covered by Executive Order 14026, and --

(A) 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);

(B) Other than individuals employed in a bona fide executive, administrative, or professional capacity, as those terms are defined in 29 CFR part 541;

(C) Regardless of the contractual relationship alleged to exist between the individual and the employer.

(ii) 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).

(iii) 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.

(2)(i) A worker performs on a contract if the worker directly performs the specific services called for by the contract; and

(ii) A worker performs in connection with a contract if the worker's work activities are necessary to the performance of a contract but are not the specific services called for by the contract.

(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 \$15.00 per hour beginning January 30, 2022.

(2) The Contractor shall adjust the minimum wage paid, if necessary, beginning January 1, 2023, 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 <https://www.sam.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 23.230, 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 or any applicable contract establishing a minimum wage higher than the E.O. 14026 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 23.240(b) and 23.280 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); and

(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/agencies/whd/government-contracts](http://www.dol.gov/agencies/whd/government-contracts), 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 23.260 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 23.510, Disputes concerning contractor compliance, the procedures for resolving disputes concerning a contractor's compliance with Department of Labor regulations at 29 CFR part 23. 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 2022)

(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. 14026, 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)

### 52.223-3 HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA (FEB 2021)

(a) "Hazardous material", as used in this clause, includes any material defined as hazardous under the latest version of Federal Standard No. 313 (including revisions adopted during the term of the contract).

(b) The offeror must list any hazardous material, as defined in paragraph (a) of this clause, to be delivered under this contract. The hazardous material shall be properly identified and include any applicable identification number, such as National Stock Number or Special Item Number. This information shall also be included on the Material Safety Data Sheet submitted under this contract.

Material (if none, insert None)	Identification No.
_____	_____
_____	_____
_____	_____

(c) This list must be updated during performance of the contract whenever the Contractor determines that any other material to be delivered under this contract is hazardous.

(d) The apparently successful offeror agrees to submit, for each item as required prior to award, a Material Safety Data Sheet, meeting the requirements of 29 CFR 1910.1200(g) and the latest version of Federal Standard No. 313, for all hazardous material identified in paragraph (b) of this clause. Data shall be submitted in accordance with Federal Standard No. 313, whether or not the apparently successful offeror is the actual manufacturer of these items. Failure to submit the Material Safety Data Sheet prior to award may result in the apparently successful offeror being considered nonresponsible and ineligible for award.

(e) If, after award, there is a change in the composition of the item(s) or a revision to Federal Standard No. 313, which renders incomplete or inaccurate the data submitted under paragraph (d) of this clause, the Contractor shall promptly notify the Contracting Officer and resubmit the data.

(f) Neither the requirements of this clause nor any act or failure to act by the Government shall relieve the Contractor of any responsibility or liability for the safety of Government, Contractor, or subcontractor personnel or property.

(g) Nothing contained in this clause shall relieve the Contractor from complying with applicable Federal, State, and local laws, codes, ordinances, and regulations (including the obtaining of licenses and permits) in connection with hazardous material.

(h) The Government's rights in data furnished under this contract with respect to hazardous material are as follows:

(1) To use, duplicate and disclose any data to which this clause is applicable. The purposes of this right are to--

(i) Apprise personnel of the hazards to which they may be exposed in using, handling, packaging, transporting, or disposing of hazardous materials;

(ii) Obtain medical treatment for those affected by the material; and

(iii) Have others use, duplicate, and disclose the data for the Government for these purposes.

(2) To use, duplicate, and disclose data furnished under this clause, in accordance with subparagraph (h)(1) of this clause, in precedence over any other clause of this contract providing for rights in data.

(3) The Government is not precluded from using similar or identical data acquired from other sources.

(End of clause)

#### 52.223-9 ESTIMATE OF PERCENTAGE OF RECOVERED MATERIAL CONTENT FOR EPA-DESIGNATED ITEMS (MAY 2008)

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

Postconsumer material means a material or finished product that has served its intended use and has been discarded for disposal or recovery, having completed its life as a consumer item. Postconsumer material is a part of the broader category of "recovered material."

Recovered material means waste materials and by-products recovered or diverted from solid waste, but the term does not include those materials and by-products generated from, and commonly reused within, an original manufacturing process.

(b) The Contractor, on completion of this contract, shall--



(1) Estimate the percentage of the total recovered material content for EPA-designated item(s) delivered and/or used in contract performance, including, if applicable, the percentage of post-consumer material content; and

(2) Submit this estimate to the COR.

(End of clause)

#### 52.223-21 FOAMS (JUN 2016)

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

Global warming potential means how much a given mass of a chemical contributes to global warming over a given time period compared to the same mass of carbon dioxide. Carbon dioxide's global warming potential is defined as 1.0.

High global warming potential hydrofluorocarbons means any hydrofluorocarbons in a particular end use for which EPA's Significant New Alternatives Policy (SNAP) program has identified other acceptable alternatives that have lower global warming potential. The SNAP list of alternatives is found at 40 CFR part 82, subpart G, with supplemental tables of alternatives available at <http://www.epa.gov/snap/>.

Hydrofluorocarbons means compounds that contain only hydrogen, fluorine, and carbon.

(b) Unless otherwise specified in the contract, the Contractor shall reduce its use, release, and emissions of high global warming potential hydrofluorocarbons and refrigerant blends containing hydrofluorocarbons, when feasible, from foam blowing agents, under this contract. When determining feasibility of using a particular alternative, the Contractor shall consider environmental, technical, and economic factors such as--

(1) In-use emission rates, energy efficiency, and safety;

(2) Ability to meet performance requirements; and

(3) Commercial availability at a reasonable cost.

(c) The Contractor shall refer to EPA's SNAP program to identify alternatives. The SNAP list of alternatives is found at 40 CFR part 82, subpart G, with supplemental tables available at <http://www.epa.gov/snap/>.

(End of clause)

#### 52.225-11 BUY AMERICAN—CONSTRUCTION MATERIALS UNDER TRADE AGREEMENTS (DEVIATION 2020-O0019) (NOV 2021)

(a) Definitions. As used in this clause—

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.

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

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

(i) A commercial product (as defined in paragraph (1) of the definition of "commercial product" at Federal Acquisition Regulation (FAR) 2.101);

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

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

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

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

Construction material means an article, material, or supply brought to the construction site by the Contractor or 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, Australia, 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, 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, Equatorial 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).

Designated country construction material means a construction material that is a WTO GPA country construction material, an FTA country construction material, a least developed country construction material, or a Caribbean Basin country construction material.

Domestic construction material means—

(1) For construction material that does not consist wholly or predominantly of iron or steel or a combination of both-

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

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

(A) The cost of its components mined, produced, or manufactured in the United States exceeds 55 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. Components of unknown origin are treated as foreign; or

(B) The construction material is a COTS item; or

(2) For construction material that consists wholly or predominantly of iron or steel or a combination of both, a construction material manufactured in the United States if the cost of foreign iron and steel constitutes less than 5 percent of the cost of all components used in such construction material. The cost of foreign iron and steel includes but is not limited to the cost of foreign iron or steel mill products (such as bar, billet, slab, wire, plate, or sheet), castings, or forgings utilized in the manufacture of the construction material and a good faith estimate of the cost of all foreign iron or steel components excluding COTS fasteners. Iron or steel components of unknown origin are treated as foreign. If the construction material contains multiple components, the cost of all the materials used in such construction material is calculated in accordance with the definition of "cost of components".

Fastener means a hardware device that mechanically joins or affixes two or more objects together. Examples of fasteners are nuts, bolts, pins, rivets, nails, clips, and screws.

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

Foreign iron and steel means iron or steel products not produced in the United States. Produced in the United States means that all manufacturing processes of the iron or steel must take place in the United States, from the initial melting stage through the application of coatings, except metallurgical processes involving refinement of steel additives. The origin of the elements of the iron or steel is not relevant to the determination of whether it is domestic or foreign.

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.

Predominantly of iron or steel or a combination of both means that the cost of the iron and steel content exceeds 50 percent of the total cost of all its components. The cost of iron and steel is the cost of the iron or steel mill products (such as bar, billet, slab, wire, plate, or sheet), castings, or forgings utilized in the manufacture of the product and a good faith estimate of the cost of iron or steel components excluding COTS fasteners.

Steel means an alloy that includes at least 50 percent iron, between 0.02 and 2 percent carbon, and may include other elements.

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 domestic content test of the Buy American statute is waived for construction material that is a COTS item, except that for construction material that consists wholly or predominantly of iron or steel or a combination of both, the domestic content test is applied only to the iron and steel content of the construction material, excluding COTS fasteners. (See FAR 12.505(a)(2)). In addition, the Contracting Officer has determined that the WTO GPA and Free Trade Agreements (FTAs) apply to this acquisition. Therefore, the Buy American restrictions are waived for designated country construction materials.

(2) The Contractor shall use only domestic or designated country 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 information technology that is a commercial product or 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 20 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)*
Item 1:			
Foreign construction material			
Domestic construction material			
Item 2:			
Foreign construction material			
Domestic construction material			

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

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

[Include other applicable supporting information.]

(End of clause)

#### 52.228-14 IRREVOCABLE LETTER OF CREDIT (NOV 2014)

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

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

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

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

(2) If used as an alternative to corporate or individual sureties as security for a performance or payment bond, the offeror/Contractor may submit an ILC with an initial expiration date estimated to cover the entire period for which

financial security is required or may submit an ILC with an initial expiration date that is a minimum period of one year from the date of issuance. The ILC shall provide that, unless the issuer provides the beneficiary written notice of non-renewal at least 60 days in advance of the current expiration date, the ILC is automatically extended without amendment for one year from the expiration date, or any future expiration date, until the period of required coverage is completed and the Contracting Officer provides the financial institution with a written statement waiving the right to payment. The period of required coverage shall be:

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

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

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

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

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

(A) 90 days following final payment; or

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

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

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

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

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

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

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

Issue Date \_\_\_\_

IRREVOCABLE LETTER OF CREDIT NO. \_\_\_\_

Account party's name \_\_\_\_

Account party's address \_\_\_\_

For Solicitation No. \_\_\_\_ (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)

52.230-3 DISCLOSURE AND CONSISTENCY OF COST ACCOUNTING PRACTICES (DEVIATION 2018-O0015) (JUN 2020)

(a) The Contractor, in connection with this contract, shall—

(1) Comply with the requirements of 48 CFR 9904.401, Consistency in Estimating, Accumulating, and Reporting Costs; 48 CFR 9904.402, Consistency in Allocating Costs Incurred for the Same Purpose; 48 CFR 9904.405, Accounting for Unallowable Costs; and 48 CFR 9904.406, Cost Accounting Standard—Cost Accounting Period, in effect on the date of award of this contract as indicated in 48 CFR Part 9904.

(2) (CAS-covered Contracts Only) If it is a business unit of a company required to submit a Disclosure Statement, disclose in writing its cost accounting practices as required by 48 CFR 9903.202-1 through 9903.202-5. If the Contractor has notified the Contracting Officer that the Disclosure Statement contains trade secrets and commercial or financial information which is privileged and confidential, the Disclosure Statement shall be protected and shall not be released outside of the Government.

(3)(i) Follow consistently the Contractor's cost accounting practices. A change to such practices may be proposed, however, by either the Government or the Contractor, and the Contractor agrees to negotiate with the Contracting Officer the terms and conditions under which a change may be made. After the terms and conditions under which the change is to be made have been agreed to, the change must be applied prospectively to this contract, and the Disclosure Statement, if affected, must be amended accordingly.

(ii) The Contractor shall, when the parties agree to a change to a cost accounting practice and the Contracting Officer has made the finding required in 48 CFR 9903.201-6(c), that the change is desirable and not detrimental to the interests of the Government, negotiate an equitable adjustment as provided in the Changes clause of this contract. In the absence of the required finding, no agreement may be made under this contract clause that will increase costs paid by the United States.

(4) Agree to an adjustment of the contract price or cost allowance, as appropriate, if the Contractor or a subcontractor fails to comply with the applicable CAS or to follow any cost accounting practice, and such failure results in any increased costs paid by the United States. Such adjustment shall provide for recovery of the increased costs to the United States together with interest thereon computed at the annual rate established under section 6621(a)(2) of the Internal Revenue Code of 1986 (26 U.S.C. 6621(a)(2)), from the time the payment by the United States was made to the time the adjustment is effected.

(b) If the parties fail to agree whether the Contractor has complied with an applicable CAS, rule, or regulation as specified in 48 CFR 9903 and 9904 and as to any cost adjustment demanded by the United States, such failure to agree will constitute a dispute under 41 U.S.C. chapter 71, Contract Disputes.

(c) The Contractor shall permit any authorized representatives of the Government to examine and make copies of any documents, papers, and records relating to compliance with the requirements of this clause.

(d) The Contractor shall include in all negotiated subcontracts, which the Contractor enters into, the substance of this clause, except paragraph (b), and shall require such inclusion in all other subcontracts of any tier, except that—

(1) If the subcontract is awarded to a business unit which pursuant to 48 CFR 9903.201-2 is subject to other types of CAS coverage, the substance of the applicable clause set forth in section 30.201-4 of the Federal Acquisition Regulation (FAR) shall be inserted.

(2) The requirement in this paragraph (d) shall apply only to negotiated subcontracts in excess of the lower CAS threshold specified in FAR 30.201-4(b) on the date of subcontract award.

(3) The requirement shall not apply to negotiated subcontracts otherwise exempt from the requirement to include a CAS clause as specified in 48 CFR 9903.201-1.

(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 (NOV 2021)

(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 products or commercial services.

(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 15 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)

**52.236-4 PHYSICAL DATA (APR 1984)**

Data and information furnished or referred to below is for the Contractor's information. The Government shall not be responsible for any interpretation of or conclusion drawn from the data or information by the Contractor.

(a) The indications of physical conditions on the drawings and in the specifications are the result of site investigations.

(b) Weather conditions: Data on temperature and rainfall may be obtained from the National Weather. Transportation facilities: The Contractor shall make its own investigation on the condition and availability of public and private roads as well as clearances, restrictions and load limits of bridges.

(End of clause)

**52.244-2 SUBCONTRACTS (JUN 2020)**

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

Approved purchasing system means a Contractor's purchasing system that has been reviewed and approved in accordance with Part 44 of the Federal Acquisition Regulation (FAR).

Consent to subcontract means the Contracting Officer's written consent for the Contractor to enter into a particular subcontract.

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

(b) When this clause is included in a fixed-price type contract, consent to subcontract is required only on unpriced contract actions (including unpriced modifications or unpriced delivery orders), and only if required in accordance with paragraph (c) or (d) of this clause.

(c) If the Contractor does not have an approved purchasing system, consent to subcontract is required for any subcontract that—

(1) Is of the cost-reimbursement, time-and-materials, or labor-hour type; or

(2) Is fixed-price and exceeds—

(i) For a contract awarded by the Department of Defense, the Coast Guard, or the National Aeronautics and Space Administration, the greater of the simplified acquisition threshold, as defined in FAR 2.101 on the date of subcontract award, or 5 percent of the total estimated cost of the contract; or

(ii) For a contract awarded by a civilian agency other than the Coast Guard and the National Aeronautics and Space Administration, either the simplified acquisition threshold, as defined in FAR 2.101 on the date of subcontract award, or 5 percent of the total estimated cost of the contract.

(d) If the Contractor has an approved purchasing system, the Contractor nevertheless shall obtain the Contracting Officer's written consent before placing the following subcontracts:

None.

(e)(1) The Contractor shall notify the Contracting Officer reasonably in advance of placing any subcontract or modification thereof for which consent is required under paragraph (b), (c), or (d) of this clause, including the following information:

(i) A description of the supplies or services to be subcontracted.

(ii) Identification of the type of subcontract to be used.

(iii) Identification of the proposed subcontractor.

(iv) The proposed subcontract price.

(v) The subcontractor's current, complete, and accurate certified cost or pricing data and Certificate of Current Cost or Pricing Data, if required by other contract provisions.

(vi) The subcontractor's Disclosure Statement or Certificate relating to Cost Accounting Standards when such data are required by other provisions of this contract.

(vii) A negotiation memorandum reflecting—

(A) The principal elements of the subcontract price negotiations;

(B) The most significant considerations controlling establishment of initial or revised prices;

(C) The reason certified cost or pricing data were or were not required;

(D) The extent, if any, to which the Contractor did not rely on the subcontractor's certified cost or pricing data in determining the price objective and in negotiating the final price;

(E) The extent to which it was recognized in the negotiation that the subcontractor's certified cost or pricing data were not accurate, complete, or current; the action taken by the Contractor and the subcontractor; and the effect of any such defective data on the total price negotiated;

(F) The reasons for any significant difference between the Contractor's price objective and the price negotiated; and

(G) A complete explanation of the incentive fee or profit plan when incentives are used. The explanation shall identify each critical performance element, management decisions used to quantify each incentive element, reasons for the incentives, and a summary of all trade-off possibilities considered.

(2) The Contractor is not required to notify the Contracting Officer in advance of entering into any subcontract for which consent is not required under paragraph (c), (d), or (e) of this clause.

(f) Unless the consent or approval specifically provides otherwise, neither consent by the Contracting Officer to any subcontract nor approval of the Contractor's purchasing system shall constitute a determination—

(1) Of the acceptability of any subcontract terms or conditions;

(2) Of the allowability of any cost under this contract; or

(3) To relieve the Contractor of any responsibility for performing this contract.

(g) No subcontract or modification thereof placed under this contract shall provide for payment on a cost-plus-a-percentage-of-cost basis, and any fee payable under cost-reimbursement type subcontracts shall not exceed the fee limitations in FAR 15.404-4(c)(4)(i).

(h) The Contractor shall give the Contracting Officer immediate written notice of any action or suit filed and prompt notice of any claim made against the Contractor by any subcontractor or vendor that, in the opinion of the Contractor, may result in litigation related in any way to this contract, with respect to which the Contractor may be entitled to reimbursement from the Government.

(i) The Government reserves the right to review the Contractor's purchasing system as set forth in FAR Subpart 44.3.

(j) Paragraphs (c) and (e) of this clause do not apply to the following subcontracts, which were evaluated during negotiations:

None.

(End of clause)

## 52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

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

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

(End of clause)

## 52.252-6 AUTHORIZED DEVIATIONS IN CLAUSES (NOV 2020)

(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 DFARS (48 CFR 2) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the name of the regulation.

(End of clause)

## 252.203-7004 DISPLAY OF HOTLINE POSTERS (AUG 2019)

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

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

(b) Display of hotline poster(s).

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

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

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

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

(ii) Via the internet at [https://www.oig.dhs.gov/assets/Hotline/DHS\\_OIG\\_Hotline-optimized.jpg](https://www.oig.dhs.gov/assets/Hotline/DHS_OIG_Hotline-optimized.jpg).

(c)(1) The DoD hotline poster may be obtained from: Defense Hotline, The Pentagon, Washington, D.C. 20301-1900, or is also available via the internet at <https://www.dodig.mil/Resources/Posters-and-Brochures/>.

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

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

(d) Subcontracts. The Contractor shall include the substance of this clause, including this paragraph (d), in all subcontracts that exceed the threshold specified in Defense Federal Acquisition Regulation Supplement 203.1004(b)(2)(ii) on the date of subcontract award, except when the subcontract is for the acquisition of a commercial item.

(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.dibesia@mail.mil](mailto:osd.dibesia@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 (JAN 2021)

(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 3 business days 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 30 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)

## 252.204-7020 NIST SP 800-171 DOD ASSESSMENT REQUIREMENTS (MAR 2022)

(a) Definitions.

Basic Assessment means a contractor's self-assessment of the contractor's implementation of NIST SP 800-171 that--

(1) Is based on the Contractor's review of their system security plan(s) associated with covered contractor information system(s);

(2) Is conducted in accordance with the NIST SP 800-171 DoD Assessment Methodology; and

(3) Results in a confidence level of "Low" in the resulting score, because it is a self-generated score.

Covered contractor information system has the meaning given in the clause 252.204-7012, Safeguarding Covered Defense Information and Cyber Incident Reporting, of this contract.

High Assessment means an assessment that is conducted by Government personnel using NIST SP 800-171A, Assessing Security Requirements for Controlled Unclassified Information that--

(1) Consists of--

(i) A review of a contractor's Basic Assessment;

(ii) A thorough document review;

(iii) Verification, examination, and demonstration of a Contractor's system security plan to validate that NIST SP 800-171 security requirements have been implemented as described in the contractor's system security plan; and

(iv) Discussions with the contractor to obtain additional information or clarification, as needed; and

(2) Results in a confidence level of "High" in the resulting score.

Medium Assessment means an assessment conducted by the Government that--

(1) Consists of--

(i) A review of a contractor's Basic Assessment;

(ii) A thorough document review; and

(iii) Discussions with the contractor to obtain additional information or clarification, as needed; and

(2) Results in a confidence level of "Medium" in the resulting score.

(b) Applicability. This clause applies to covered contractor information systems that are required to comply with the National Institute of Standards and Technology (NIST) Special Publication (SP) 800-171, in accordance with Defense Federal Acquisition Regulation System (DFARS) clause at 252.204-7012, Safeguarding Covered Defense Information and Cyber Incident Reporting, of this contract.

(c) Requirements. The Contractor shall provide access to its facilities, systems, and personnel necessary for the Government to conduct a Medium or High NIST SP 800-171 DoD Assessment, as described in NIST SP 800-171 DoD Assessment Methodology at <https://www.acq.osd.mil/asda/dpc/cp/cyber/safeguarding.html#nistSP800171>, if necessary.

(d) Procedures. Summary level scores for all assessments will be posted in the Supplier Performance Risk System (SPRS) (<https://www.sprs.csd.disa.mil/>) to provide DoD Components visibility into the summary level scores of strategic assessments.

(1) Basic Assessments. A contractor may submit, via encrypted email, summary level scores of Basic Assessments conducted in accordance with the NIST SP 800-171 DoD Assessment Methodology to [webptsmh@navy.mil](mailto:webptsmh@navy.mil) for posting to SPRS.

(i) The email shall include the following information:

(A) Version of NIST SP 800-171 against which the assessment was conducted.

(B) Organization conducting the assessment (e.g., Contractor self-assessment).

(C) For each system security plan (security requirement 3.12.4) supporting the performance of a DoD contract--

(1) All industry Commercial and Government Entity (CAGE) code(s) associated with the information system(s) addressed by the system security plan; and

(2) A brief description of the system security plan architecture, if more than one plan exists.

(D) Date the assessment was completed.

(E) Summary level score (e.g., 95 out of 110, NOT the individual value for each requirement).

(F) Date that all requirements are expected to be implemented (i.e., a score of 110 is expected to be achieved) based on information gathered from associated plan(s) of action developed in accordance with NIST SP 800-171.

(ii) If multiple system security plans are addressed in the email described at paragraph (b)(1)(i) of this section, the Contractor shall use the following format for the report:

System security plan	CAGE codes supported by this plan	Brief description of the plan architecture	Date of assessment	Total score	Date score of 110 will be achieved

(2) Medium and High Assessments. DoD will post the following Medium and/or High Assessment summary level scores to SPRS for each system security plan assessed:

(i) The standard assessed (e.g., NIST SP 800-171 Rev 1).

(ii) Organization conducting the assessment, e.g., DCMA, or a specific organization (identified by Department of Defense Activity Address Code (DoDAAC)).

(iii) All industry CAGE code(s) associated with the information system(s) addressed by the system security plan.

(iv) A brief description of the system security plan architecture, if more than one system security plan exists.

(v) Date and level of the assessment, i.e., medium or high.

(vi) Summary level score (e.g., 105 out of 110, not the individual value assigned for each requirement).

(vii) Date that all requirements are expected to be implemented (i.e., a score of 110 is expected to be achieved) based on information gathered from associated plan(s) of action developed in accordance with NIST SP 800-171.

(e) Rebuttals. (1) DoD will provide Medium and High Assessment summary level scores to the Contractor and offer the opportunity for rebuttal and adjudication of assessment summary level scores prior to posting the summary level scores to SPRS (see SPRS User's Guide [https://www.sprs.csd.disa.mil/pdf/SPRS\\_Awardee.pdf](https://www.sprs.csd.disa.mil/pdf/SPRS_Awardee.pdf)).

(2) Upon completion of each assessment, the contractor has 14 business days to provide additional information to demonstrate that they meet any security requirements not observed by the assessment team or to rebut the findings that may be of question.

(f) Accessibility.



(1) Assessment summary level scores posted in SPRS are available to DoD personnel, and are protected, in accordance with the standards set forth in DoD Instruction 5000.79, Defense-wide Sharing and Use of Supplier and Product Performance Information (PI).

(2) Authorized representatives of the Contractor for which the assessment was conducted may access SPRS to view their own summary level scores, in accordance with the SPRS Software User's Guide for Awardees/Contractors available at [https://www.sprs.csd.disa.mil/pdf/SPRS\\_Awardee.pdf](https://www.sprs.csd.disa.mil/pdf/SPRS_Awardee.pdf).

(3) A High NIST SP 800-171 DoD Assessment may result in documentation in addition to that listed in this clause. DoD will retain and protect any such documentation as "Controlled Unclassified Information (CUI)" and intended for internal DoD use only. The information will be protected against unauthorized use and release, including through the exercise of applicable exemptions under the Freedom of Information Act (e.g., Exemption 4 covers trade secrets and commercial or financial information obtained from a contractor that is privileged or confidential).

(g) Subcontracts.

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

(2) The Contractor shall not award a subcontract or other contractual instrument, that is subject to the implementation of NIST SP 800-171 security requirements, in accordance with DFARS clause 252.204-7012 of this contract, unless the subcontractor has completed, within the last 3 years, at least a Basic NIST SP 800-171 DoD Assessment, as described in <https://www.acq.osd.mil/asda/dpc/cp/cyber/safeguarding.html#nistSP800171>, for all covered contractor information systems relevant to its offer that are not part of an information technology service or system operated on behalf of the Government.

(3) If a subcontractor does not have summary level scores of a current NIST SP 800-171 DoD Assessment (i.e., not more than 3 years old unless a lesser time is specified in the solicitation) posted in SPRS, the subcontractor may conduct and submit a Basic Assessment, in accordance with the NIST SP 800-171 DoD Assessment Methodology, to [webptsmh@navy.mil](mailto:webptsmh@navy.mil) for posting to SPRS along with the information required by paragraph (d) of this clause.

(End of clause)

#### 252.204-7022 EXPEDITING CONTRACT CLOSEOUT (MAY 2021)

(a) At the conclusion of all applicable closeout requirements of Federal Acquisition Regulation 4.804, the Government and Contractor shall mutually agree on the residual dollar amount remaining on the contract. Both the Government and Contractor agree to waive payment of any residual dollar amount of \$1,000 or less to which either party may be entitled at the time of contract closeout.

(b) A residual dollar amount includes all money owed to either party at the end of the contract and as a result of the contract, excluding amounts connected in any way with taxation or a violation of law or regulation.

(c) For purposes of determining residual dollar amounts, offsets (e.g., across multiple contracts or orders) may be considered only to the extent permitted by law.

(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)

## 252.225-7972 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)

#### 252.232-7017 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)

#### 252.236-7001 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.

(End of clause)

SECTION 01 01 01

SPECIAL CONTRACT REQUIREMENTS

PART 1 TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER (ER 415-1-15) (OCT 1989)

- (a) This provision specifies the procedure for the determination of time extensions for unusually severe weather in accordance with the Contract Clause entitled "DEFAULT (FIXED PRICE CONSTRUCTION)". In order for the Contracting Officer to award a time extension under this clause, the following conditions must be satisfied:
1. The weather experienced at the project site during the contract period must be found to be unusually severe, that is, more severe than the adverse weather anticipated for the project location during any given month.
  2. The unusually severe weather must actually cause a delay to the completion of the project. The delay must be beyond the control and without the fault or negligence of the Contractor.
- (b) The following schedule of monthly anticipated adverse weather delays is based on National Oceanic and Atmospheric Administration (NOAA) or similar data for the project location and will constitute the base line for monthly weather time evaluations. The Contractor's progress schedule must reflect these anticipated adverse weather delays in all weather dependent activities.

Monthly Anticipated Adverse Weather Delay  
Work Days Based on (5) Day Work Week

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
6	4	6	2	4	3	6	4	6	4	5	2

- (c) Upon acknowledgement of the Notice to Proceed (NTP) and continuing throughout the contract, the Contractor will record on the daily CQC report, the occurrence of adverse weather and resultant impact to normally scheduled work. Actual adverse weather delay days must prevent work on critical activities for 50 percent or more of the Contractor's scheduled work day.
- (d) The number of actual adverse weather delay days shall include days impacted by actual adverse weather (even if adverse weather occurred in previous month), be calculated chronologically from the first to the last day of each month and be recorded as full days. If the number of actual adverse weather delay days exceeds the number of days anticipated in paragraph (b), above, the Contracting Officer will convert any qualifying delays to calendar days, giving full consideration for equivalent fair-weather work days, and issue a modification in accordance with the contract clause entitled "Default (Fixed Price Construction)".

(END OF CLAUSE)

PART 2 INSURANCE SCHEDULE

The Schedule of Insurance is provided in this section as a supplement to the referenced "Schedule" in the FAR 52.228-5 INSURANCE - WORK ON A GOVERNMENT INSTALLATION (JAN 1997):

Schedule of Insurance

Type	Amount
Employers' Liability Insurance	\$200,000.00
Comprehensive General Liability Insurance:	
Bodily Injury	\$500,000.00 per occurrence
Comprehensive Automobile Liability Insurance:	
Bodily Injury	\$300,000.00 per person
Bodily Injury	\$500,000.00 per occurrence
Property Damage	\$ 50,000.00 per occurrence

Workmen's Compensation in accordance with the laws of the State of New Mexico.

(END OF CLAUSE)

PART 3 WARRANTY CONTACTS AND SCHEDULING (CESPA) (MARCH 2012)

- (a) The Contracting Officer shall hold a Pre-Warranty conference during which the parties will establish communication procedures for oral notification to the Contractor of warranty defects; establish reasonable time for Contractor responses; and other details deemed necessary by the Contracting Officer for the execution of the construction warranty. In connection with these requirements the Contractor shall furnish the name, telephone number and address of representatives authorized to perform warranty repairs. If the Contractor is located outside the local service area, the name, telephone number and address of a licensed and bonded company which is authorized to initiate and maintain warranty work action on behalf of the Contractor shall be furnished. This point of contact shall be located within the local service area of the warranty work and shall be an established company capable of performing the type of work under the warranty item. At this conference, the Contracting Officer shall furnish names and telephone numbers of the personnel authorized to notify the Contractor of any failure, defect or damage, and to request warranty repair work.

- (b) Warranty repair work which threatens the health, safety, or well-being of personnel or the safety of property and/or equipment will be handled by the Contractor on an immediate basis as orally directed by the Contracting Officer, as established during the Pre-Warranty conference. Such items requiring immediate attention shall include but not be limited to the following: air conditioning, heating, and ventilating systems; sewage disposal facilities or components thereto; fire protection systems; water supply system or components thereto; and electrical power systems. Other warranty repair which does not threaten the health, safety, or well-being of personnel and/or safety of property or equipment will be handled by the Contractor within seventy-two (72) hours or the time frame established during the Pre-Warranty Conference. Failure of the Contractor to respond as requested will be cause for the Contracting Officer to have the warranty repair work performed by others and proceed against the Contractor in accordance with this section. Any work required to correct a warranty item accomplished by the Government shall not void the warranty of the item.

(END OF CLAUSE)

- END OF SPECIAL CONTRACT REQUIREMENTS -

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## SECTION 01 11 00

### SUMMARY OF WORK

#### 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. DEPARTMENT OF DEFENSE (DOD)

**UFC 1-200-02** (2020) High Performance and Sustainable Building Requirements

**UFC 4-010-01** (2018;with Change 1, 2020) DoD Minimum Antiterrorism Standards for Buildings

##### 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 that will review the submittal for the Government. Submittals with an "S" are for inclusion in the Sustainability eNotebook, in conformance with Section **01 33 29** SUSTAINABILITY REPORTING. Submit the following in accordance with Section **01 33 00** SUBMITTAL PROCEDURES:

##### **SD-01 Preconstruction Submittals**

**Salvage Plan; G, S**

##### 1.3 WORK COVERED BY CONTRACT DOCUMENTS

###### 1.3.1 Project Description

Located at Kirtland AFB in Albuquerque, NM, this project will construct a new Combat Rescue Helicopter (CRH) Simulator Facility at the current Building 954 and 960 locations near the intersection of Eileen Avenue and Biggs Avenue, adjacent to the recently completed CRH Simulator Facility. Project Base Bid and Options (if awarded) will be a 26,232sf facility that houses one large 60'x120' bay for two Combat Rescue Helicopter simulators, one 40'x90' bay for an Aircrew Training Device, 2.5 ton crane for equipment movement, two Image Generator rooms that support the two simulators, six multi-purpose classrooms, three Mission Planning rooms, Administration space, and break room. The Building will be connected to the existing building which will be used as the main entry with a central corridor that travels from the south entry, connecting both phases. In addition to the construction, the project will also consist of a 4,682sf interior renovation of a portion of Building 923, construction of a 95-space parking lot east of Building 957 and related incidental work. Sustainable principles, to include Life Cycle cost effective practices, will be integrated in accordance to **UFC 1-200-02**. The project will comply with DoD antiterrorism/Force Protection requirements per **UFC 4-010-01**.

### 1.3.2 Location

The work is located at the Kirtland Air Force Base. The new facility will be constructed at the current Building 954 and 960 locations near the intersection of Eileen Avenue and Biggs Avenue. The exact location will be shown by the Contracting Officer.

### 1.4 OCCUPANCY OF PREMISES

N/A

### 1.5 EXISTING WORK

In addition to FAR 52.236-9 Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements:

- a. Remove or alter existing work in such a manner as to prevent injury or damage to any portions of the existing work which remain.
- b. Repair or replace portions of existing work which have been altered during construction operations to match existing or adjoining work, as approved by the Contracting Officer. At the completion of operations, existing work must be in a condition equal to or better than that which existed before new work started.

### 1.6 LOCATION OF UNDERGROUND UTILITIES

Obtain digging permits prior to start of excavation and comply with Installation requirements for locating and marking underground utilities. Contact local utility locating service a minimum of 48 hours prior to excavating, to mark utilities, and within sufficient time required if work occurs on a Monday or after a Holiday. Verify existing utility locations indicated on contract drawings, within area of work.

Identify and mark all other utilities not managed and located by the local utility companies. Scan the construction site with Ground Penetrating Radar (GPR), electromagnetic, or sonic equipment, and mark the surface of the ground or paved surface where existing underground utilities are discovered. Verify the elevations of existing piping, utilities, and any type of underground or encased obstruction not indicated, or specified to be removed, that is indicated or discovered during scanning, in locations to be traversed by piping, ducts, and other work to be conducted or installed. Verify elevations before installing new work closer than nearest manhole or other structure at which an adjustment in grade can be made.

#### 1.6.1 Notification Prior to Excavation

Notify the Contracting Officer at least 48 hours prior to starting excavation work.

### 1.7 SALVAGE MATERIAL AND EQUIPMENT

Items designated by the Contracting Officer to be salvaged remain the property of the Government. Segregate, itemize, deliver and off-load the salvaged property at the storage area.

Provide a [salvage plan](#), listing material and equipment to be salvaged, and their storage location. Maintain property control records for material or

equipment designated as salvage. Use a system of property control that is approved by the Contracting Officer. Store and protect salvaged materials and equipment until disposition by the Contracting Officer.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

-- End of Section --

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SECTION 01 14 00

WORK RESTRICTIONS

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. Submittals with an "S" are for inclusion in the Sustainability Notebook, in conformance with Section 01 33 29 SUSTAINABILITY REPORTING. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

List of Contact Personnel; G

1.2 SPECIAL SCHEDULING REQUIREMENTS

- a. Contractor must be ready for operation as approved by Contracting Officer before work is started.
- b. Have materials, equipment, and personnel required to perform the work at the site prior to the commencement of the work.
- c. The Contractor must conduct his operations so as to cause the least possible interference with normal operations of the activity.
- d. Permission to interrupt any Activity roads, railroads, or utility service must be requested in writing a minimum of 30 calendar days prior to the desired date of interruption.

1.3 CONTRACTOR ACCESS AND USE OF PREMISES

1.3.1 Activity Regulations

Ensure that Contractor personnel employed on the Activity become familiar with and obey Activity regulations including safety, fire, traffic and security regulations. Keep within the limits of the work and avenues of ingress and egress. Wear hard hats in designated areas. Do not enter any restricted areas unless required to do so and until cleared for such entry. Mark Contractor equipment for identification.

1.3.1.1 Subcontractors and Personnel Contacts

Provide a list of contact personnel of the Contractor and subcontractors including addresses and telephone numbers for use in the event of an emergency. As changes occur and additional information becomes available, correct and change the information contained in previous lists.

1.3.1.2 Identification Badges and Installation Access

One-day passes, issued through the Base Pass and Identification Office, will be furnished without charge. Furnish a completed EMPLOYMENT

ELIGIBILITY VERIFICATION (DHS FORM I-9) form for all personnel requesting badges. This form is available at <http://www.uscis.gov/portal/site/uscis> by searching or selecting Employment Verification (Form I-9). Immediately report instances of lost or stolen badges to the Contracting Officer.

#### 1.3.1.3 No Smoking Policy

Smoking is prohibited within and outside of all buildings on installation, except in designated smoking areas. This applies to existing buildings, buildings under construction and buildings under renovation. Discarding tobacco materials other than into designated tobacco receptacles is considered littering and is subject to fines. The Contracting Officer will identify designated smoking areas.

#### 1.3.2 Working Hours

Regular working hours must consist of an 8-1/2-hour period established by the Contracting Officer, between 6:00 a.m. and 6:00 p.m., Monday through Friday, excluding Government holidays.

#### 1.3.3 Work Outside Regular Hours

Work outside regular working hours requires Contracting Officer approval. Make application 15 calendar days prior to such work to allow arrangements to be made by the Government for inspecting the work in progress, giving the specific dates, hours, location, type of work to be performed, contract number and project title. Based on the justification provided, the Contracting Officer may approve work outside regular hours. During periods of darkness, the different parts of the work must be lighted in a manner approved by the Contracting Officer. Make utility cutovers after normal working hours or on Saturdays, Sundays, and Government holidays unless directed otherwise.

#### 1.3.4 Occupied Buildings

The Contractor shall be working around existing buildings which are occupied. Do not enter the buildings without prior approval of the Contracting Officer.

The existing buildings and their contents must be kept secure at all times. Provide temporary closures as required to maintain security as directed by the Contracting Officer.

Provide dust covers or protective enclosures to protect existing work that remains and Government material located in the building(s) during the construction period.

Relocate movable furniture approximately 6 feet away from the Contractor's working area, protect the furniture, and replace the furniture in its original location(s) upon completion of the work. Leave attached equipment in place, and protect it against damage, or temporarily disconnect, relocate, protect, and reinstall it at the completion of the work.

#### 1.3.5 Utility Cutovers and Interruptions

- a. Make utility cutovers and interruptions after normal working hours or on Saturdays, Sundays, and Government holidays. Conform to procedures

required paragraph WORK OUTSIDE REGULAR HOURS.

- b. Ensure that new utility lines are complete, except for the connection, before interrupting existing service.
- c. Interruption to water, sanitary sewer, storm sewer, telephone service, electric service, air conditioning, heating, fire alarm, and compressed air are considered utility cutovers pursuant to the paragraph WORK OUTSIDE REGULAR HOURS. Such interruptions are further limited to (8) hours. This time limit includes time for deactivation and reactivation.
- d. Operation of Station Utilities: The Contractor must not operate nor disturb the setting of control devices in the station utilities system, including water, sewer, electrical, and steam services. The Government will operate the control devices as required for normal conduct of the work. The Contractor must notify the Contracting Officer giving reasonable advance notice when such operation is required.

#### 1.4 SECURITY REQUIREMENTS

Contract Clause "FAR 52.204-2, Security Requirements and Alternate II,"  
"FAC 5252.236-9301, Special Working Conditions and Entry to Work Area."

#### PART 2 PRODUCTS

Not Used

#### PART 3 EXECUTION

Not Used

-- End of Section --

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SECTION 01 20 00

INTERFACE WITH OTHER WORK

PART 1 GENERAL

1.1 GENERAL REQUIREMENTS

The Contractor shall make a special effort to fully cooperate with other Contractors and Government employees engaged in other work on and adjacent to the work to be performed under this contract. The Contractor shall coordinate the work herein and the concurrent use of haul roads, aggregate sources and utilities shall become a joint responsibility. Any damage resulting from the use of facilities of other Contractors shall immediately be repaired to the satisfaction of or as directed by the Contracting Officer. If required and allowed, the Contractor shall construct and maintain a temporary detour around any road that is obstructed in the performance of work under this contract.

1.1.1 Weekly Meeting

The Contractor shall meet weekly with the Government along with any other Contractors working in the area to discuss and coordinate work activities. The Contractor shall prepare and present at the weekly meeting a two (2) week window of his NAS of major activities to be performed within the first week in detail and the second week in general.

1.1.2 Coordination With Other Work

Due to the congested and confined work area at Kirtland Air Force Base and the requirement for contractors and Government personnel to be working in the same general area of the work to be performed under this contract, the Contractor shall carefully fit his own work to any ongoing or additional work, as may be directed by the Contracting Officer. The Contractor shall not commit or permit any act which will interfere with the performance of work by any other Contractor or by Kirtland Air Force Base personnel. The Contractor shall be liable for any costs incurred by the Government including those associated with settlement of disputes or claims by others due to or arising from the failure of the Contractor to comply with this provision.

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 that will review the submittal for the Government. The following shall be submitted in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Area Use Plan; G

1.3 AREA USE PLAN

The Contractor shall submit to the Contracting Officer's representative

for approval within ten (10) calendar days after receipt of the Notice to Proceed, an Area Use Plan designating proposed intended use of all areas at the project site and staging area. This plan shall include, but not be limited to the following:

- a. Borrow removal plan and access roads to the site(s);
- b. Drawings showing proposed road detours;
- c. Drawings showing temporary telephone and electrical installations;
- d. Temporary water and sewage disposal installations;
- e. Construction plant and building installations;
- f. If any; concrete truck washout area;
- g. The Contractor staging area;
- h. Material storage area and;
- i. Office or administration facilities.

Construction of any fencing will be the responsibility of the Contractor and performed at no additional cost to the Government. The Contractor staging area shall be the location of all offices and storage trailers, parking area for company and privately-owned vehicles; storage of materials and equipment; storage and disbursement of fuel, oil and gas; maintenance of equipment and fabrication of materials.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

-- End of Section --

SECTION 01 22 00.00 10

PRICE AND PAYMENT PROCEDURES

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. Submittals with an "S" are for inclusion in the Sustainability eNotebook, in conformance to Section 01 33 29 SUSTAINABILITY REPORTING.

1.2 SINGLE JOB PAYMENT ITEMS

Payment items for the work of this contract for which contract job payments will be made are listed in the SCHEDULE and described below. All costs for items of work, which are not specifically mentioned to be included in a particular job or unit price payment item, are included in the listed job item most closely associated with the work involved. The job price and payment made for each item listed constitutes full compensation for furnishing all plant, labor, materials, and equipment, and performing any associated Contractor quality control, environmental protection, meeting safety requirements, tests and reports, and for performing all work required for which separate payment is not otherwise provided.

1.2.1 CLIN 0001: Construction Within 5-Foot Footprint of Building 951B, Complete

1.2.1.1 Payment

Payment will be made for costs associated with operations necessary for the construction of B951B; and work is completed and accepted by the Government.

1.2.1.2 Unit of Measure

Unit of measure: job.

1.2.2 CLIN 0002: Construction Within 5-Foot Footprint and Renovation of Building 923

1.2.2.1 Payment

Payment will be made for costs associated with operations necessary for construction and renovation work associated with B923; and work is completed and accepted by the Government.

1.2.2.2 Unit of Measure

Unit of measure: job.

1.2.3 CLIN 0003: Site Work Outside 5-Foot Footprint of Buildings 951B and 923

1.2.3.1 Payment

Payment will be made for costs associated with operations necessary for site work outside of the 5-foot footprint of 951B and B923; and work is completed and accepted by the Government.

1.2.3.2 Unit of Measure

Unit of Measure: Job.

1.2.4 CLIN 0004: Demolition of Building 954

1.2.4.1 Payment

Payment will be made for costs associated with operations necessary for the Demolition of Building 954; and work is completed and accepted by the Government.

1.2.4.2 Unit of Measure

Unit of Measure: Job.

1.2.5 CLIN 0005: Demolition of Building 960

1.2.5.1 Payment

Payment will be made for costs associated with operations necessary for the Demolition of Building 960; and work is completed and accepted by the Government.

1.2.5.2 Unit of Measure

Unit of Measure: Job.

1.2.6 CLIN 0006: Opt. No. 1: Building 923 Office and Collaboration Area

1.2.6.1 Payment

Payment will be made for costs associated with operations necessary for the completion of B923 Office and Collaboration Area; and work is completed and accepted by the Government.

1.2.6.2 Unit of Measure

Unit of Measure: Job.

1.2.7 CLIN 0007: Opt. No. 2: Building 923 Telecommunications for Formal Work Area

1.2.7.1 Payment

Payment will be made for costs associated with the Building 923 Office once all work is complete and accepted by the Government.

1.2.7.2 Unit of Measure

Unit of Measure: Job.

1.2.8 CLIN 0008: Opt. No. 3: Building 923 Telecommunications for Two  
Offices and Two Collaboration Rooms

1.2.8.1 Payment

Payment will be made for costs associated with telecommunications work in the Formal Work Area of Building 923 are completed; and work is completed and accepted by the Government.

1.2.8.2 Unit of Measure

Unit of Measure: Job.

1.2.9 CLIN 0009: Opt. No. 4: Resurfacing of Existing Parking Lot Adjacent  
to Building 957

1.2.9.1 Payment

Payment will be made for costs associated with the Building 957 Telecommunications once all work is complete and accepted by the Government.

1.2.9.2 Unit of Measure

Unit of Measure: Job.

1.2.10 CLIN 0010: Opt. No. 5: Construction of Asphalt Surfaced Parking Lot  
with 59 POV Spaces

1.2.10.1 Payment

Payment will be made for costs associated with operations necessary for the completion of Construction of Asphalt Surfaced Parking Lot with 59 POV Spaces; and work is completed and accepted by the Government.

1.2.10.2 Unit of Measure

Unit of Measure: Job.

1.2.11 CLIN 0011: Opt. No. 6: Building 951B Operable Panel Partition in  
lieu of Fixed Partition

1.2.11.1 Payment

Payment will be made for costs associated with the Building 951B Operable Panel Partition in lieu of Fixed Partition; and work is completed and accepted by the Government.

1.2.11.2 Unit of Measure

Unit of Measure: Job.

1.2.12 CLIN 0012: Opt. No. 7: Building 923 Informal Work Area (Demolition)

1.2.12.1 Payment

Payment will be made for costs associated with Building 923 Informal Work Area (Demolition); and work is completed and accepted by the Government.

1.2.12.2 Unit of Measure

Unit of Measure: Job.

1.2.13 CLIN 0013: Opt. No. 8: Building 923 Informal Work Area (New Work)

1.2.13.1 Payment

Payment will be made for costs associated with Building 923 Informal Work Area (New Work); work is completed and accepted by the Government.

1.2.13.2 Unit of Measure

Unit of Measure: Job.

1.2.14 CLIN 0014: Opt. No. 9: Building 923 Formal Work Area (Complete Renovation)

1.2.14.1 Payment

Payment will be made for costs associated with Building 923 Formal Work Area (Complete Renovation); work is completed and accepted by the Government.

1.2.14.2 Unit of Measure

Unit of Measure: Job.

1.2.15 CLIN 0015: Opt. No. 10: Building 923 (Demo of Water Heater)

1.2.15.1 Payment

Payment will be made for costs associated with Building 923 (Demo of Water Heater); work is completed and accepted by the Government.

1.2.15.2 Unit of Measure

Unit of Measure: Job.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

-- End of Section --

SECTION 01 30 00

ADMINISTRATIVE REQUIREMENTS

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.

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1 (2014) Safety and Health Requirements  
Manual

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 that will review the submittal for the Government. Submittals with an "S" are for inclusion in the Sustainability Notebook, in conformance with Section 01 33 29 SUSTAINABILITY REPORTING. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

View Location Map; G

Progress and Completion Pictures; G

1.3 VIEW LOCATION MAP

Submit, prior to or with the first digital photograph submittals, a sketch or drawing indicating the required photographic locations. Update as required if the locations are moved.

1.4 PROGRESS AND COMPLETION PICTURES

Photographically document site conditions prior to start of construction operations. Provide monthly, and within one month of the completion of work, digital photographs, 1600x1200x24 bit true color minimum resolution in JPEG or other suitable file format showing the sequence and progress of work. Take a minimum of 20 digital photographs each week throughout the entire project from a minimum of ten views from points located by the Contracting Officer. Submit with the monthly invoice two sets of digital photographs, each set on a separate compact disc (CD) or data versatile disc (DVD), cumulative of all photos to date. Indicate photographs demonstrating environmental procedures. Provide photographs for each month in a separate monthly directory and name each file to indicate its location on the view location sketch. Also provide the view location sketch on the CD or DVD as a digital file. Include a date designator in file names. Cross reference submittals in the appropriate daily report. Photographs provided are for unrestricted use by the Government.

## 1.5 MINIMUM INSURANCE REQUIREMENTS

Provide the minimum insurance coverage required by FAR 28.307-2 LIABILITY, during the entire period of performance under this contract. Provide other insurance coverage as required by State law.

## 1.6 SUPERVISION

### 1.6.1 Supervision By The Contractor

The following requirements, in addition to those contained in the Contract Clause entitled: SUPERINTENDENCE BY CONTRACTOR, shall be met by the Contractor:

#### 1.6.1.1 Authority of Contractor Representative

The site representative appointed by the Contractor and approved by the Contracting Officer shall, as a minimum, have the authority to negotiate and execute Supplemental Agreements having a value up to \$500,000.

#### 1.6.2 Minimum Communication Requirements

Have at least one qualified superintendent, or competent alternate, capable of reading, writing, and conversing fluently in the English language, on the jobsite at all times during the performance of contract work. In addition, if a Quality Control (QC) representative is required on the contract, then that individual must also have fluent English communication skills.

#### 1.6.3 Superintendent Qualifications

The project superintendent must have a minimum of 10 years experience in construction with at least 5 of those years as a superintendent on projects similar in size and complexity. The individual must be familiar with the requirements of EM 385-1-1 and have experience in the areas of hazard identification and safety compliance. The individual must be capable of interpreting a critical path schedule and construction drawings. The qualification requirements for the alternate superintendent are the same as for the project superintendent. The Contracting Officer may request proof of the superintendent's qualifications at any point in the project if the performance of the superintendent is in question.

##### 1.6.3.1 Duties

The project superintendent is primarily responsible for managing and coordinating day-to-day production and schedule adherence on the project. The superintendent is required to attend quality control meetings. The superintendent or qualified alternative must be on-site at all times during the performance of this contract until the work is completed and accepted.

#### 1.6.4 Non-Compliance Actions

The Project Superintendent is subject to removal by the Contracting Officer for non-compliance with requirements specified in the contract and for failure to manage the project to insure timely completion. Furthermore, 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 such stop orders is acceptable as the subject



of claim for extension of time for excess costs or damages by the Contractor.

#### 1.7 PRECONSTRUCTION

After award of the contract but prior to commencement of any work at the site, meet with the Contracting Officer to discuss and develop a mutual understanding relative to the administration of the value engineering and safety program, preparation of the schedule of prices or earned value report, shop drawings, and other submittals, scheduling programming, prosecution of the work, and clear expectations of the "Interim DD Form 1354" Submittal. Major subcontractors who will engage in the work must also attend.

#### 1.8 ELECTRONIC MAIL (E-MAIL) ADDRESS

Establish and maintain electronic mail (e-mail) capability along with the capability to open various electronic attachments as text files, pdf files, and other similar formats. Within 10 days after contract award, provide the Contracting Officer a single (only one) e-mail address for electronic communications from the Contracting Officer related to this contract including, but not limited to contract documents, invoice information, request for proposals, and other correspondence. The Contracting Officer may also use email to notify the Contractor of base access conditions when emergency conditions warrant, such as hurricanes or terrorist threats. Multiple email addresses are not allowed.

It is the Contractor's responsibility to make timely distribution of all Contracting Officer initiated e-mail with its own organization including field office(s). Promptly notify the Contracting Officer, in writing, of any changes to this email address.

#### PART 2 PRODUCTS

Not Used.

#### PART 3 EXECUTION

Not Used.

-- End of Section --

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SECTION 01 32 01.00 10

PROJECT SCHEDULE

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.

AACE INTERNATIONAL (AACE)

AACE 29R-03 (2011) Forensic Schedule Analysis

AACE 52R-06 (2006) Time Impact Analysis - As Applied  
in Construction

U.S. ARMY CORPS OF ENGINEERS (USACE)

ER 1-1-11 (2017) Administration -- Progress,  
Schedules

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 that will review the submittal for the Government. Submittals with an "S" are for inclusion in the Sustainability eNotebook, in conformance to Section 01 33 29 SUSTAINABILITY REPORTING. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Project Scheduler Qualifications; G

Preliminary Project Schedule; G

Initial Project Schedule; G

Periodic Schedule Update; G

1.3 PROJECT SCHEDULER QUALIFICATIONS

Designate an authorized representative to be responsible for the preparation of the schedule and all required updating and production of reports. The authorized representative must have a minimum of 2-years experience scheduling construction projects similar in size and nature to this project with scheduling software that meets the requirements of this specification. Representative must have a comprehensive knowledge of CPM scheduling principles and application.

## PART 2 PRODUCTS

### 2.1 SOFTWARE

The scheduling software utilized to produce and update the schedules required herein must be capable of meeting all requirements of this specification.

#### 2.1.1 Government Default Software

The Government intends to use Primavera P6.

#### 2.1.2 Contractor Software

Scheduling software used by the contractor must be commercially available from the software vendor for purchase with vendor software support agreements available. The software routine used to create the required sdef file must be created and supported by the software manufacturer.

##### 2.1.2.1 Primavera

If Primavera P6 is selected for use, provide the "xer" export file in a version of P6 importable by the Government system.

##### 2.1.2.2 Other Than Primavera

If the contractor chooses software other than Primavera P6, that is compliant with this specification, provide for the Government's use two licenses, two computers, and training for two Government employees in the use of the software. These computers will be stand-alone and not connected to Government network. Computers and licenses will be returned at project completion.

## PART 3 EXECUTION

### 3.1 GENERAL REQUIREMENTS

Prepare for approval a Project Schedule, as specified herein, pursuant to FAR Clause 52.236-15 Schedules for Construction Contracts. Show in the schedule the proposed sequence to perform the work and dates contemplated for starting and completing all schedule activities. The scheduling of the entire project is required. The scheduling of construction is the responsibility of the Contractor. Contractor management personnel must actively participate in its development. Subcontractors and suppliers working on the project must also contribute in developing and maintaining an accurate Project Schedule. Provide a schedule that is a forward planning as well as a project monitoring tool. Use the Critical Path Method (CPM) of network calculation to generate all Project Schedules. Prepare each Project Schedule using the Precedence Diagram Method (PDM).

### 3.2 BASIS FOR PAYMENT AND COST LOADING

The schedule is the basis for determining contract earnings during each update period and therefore the amount of each progress payment. The aggregate value of all activities coded to a contract CLIN must equal the value of the CLIN.

### 3.2.1 Activity Cost Loading

Activity cost loading must be reasonable and without front-end loading. Provide additional documentation to demonstrate reasonableness if requested by the Contracting Officer.

### 3.2.2 Withholdings / Payment Rejection

Failure to meet the requirements of this specification may result in the disapproval of the preliminary, initial or periodic schedule updates and subsequent rejection of payment requests until compliance is met.

In the event that the Contracting Officer directs schedule revisions and those revisions have not been included in subsequent Project Schedule revisions or updates, the Contracting Officer may withhold 10 percent of pay request amount from each payment period until such revisions to the project schedule have been made.

## 3.3 PROJECT SCHEDULE DETAILED REQUIREMENTS

### 3.3.1 Level of Detail Required

Develop the Project Schedule to the appropriate level of detail to address major milestones and to allow for satisfactory project planning and execution. Failure to develop the Project Schedule to an appropriate level of detail will result in its disapproval. The Contracting Officer will consider, but is not limited to, the following characteristics and requirements to determine appropriate level of detail:

### 3.3.2 Activity Durations

Reasonable activity durations are those that allow the progress of ongoing activities to be accurately determined between update periods. Less than 2 percent of all non-procurement activities may have Original Durations (OD) greater than 20 work days or 30 calendar days.

### 3.3.3 Permit Activities

Include permit activities with the necessary submission dates.

### 3.3.4 Procurement Activities

Include activities associated with the critical submittals and their approvals, procurement, fabrication, and delivery of long lead materials, equipment, fabricated assemblies, and supplies. Long lead procurement activities are those with an anticipated procurement sequence of over 90 calendar days.

### 3.3.5 Mandatory Tasks

Include the following activities/tasks in the initial project schedule and all updates.

- a. Submission, review and acceptance of SD-01 Preconstruction Submittals (individual activity for each).
- b. Submission of mechanical/electrical/information systems layout drawings.

- c. Long procurement activities
- d. Submission and approval of O & M manuals.
- e. Submission and approval of as-built drawings.
- f. Submission and approval of DD1354 data and installed equipment lists.
- g. Submission and approval of testing and air balance (TAB).
- h. Submission of TAB specialist design review report.
- i. Submission and approval of fire protection specialist.
- j. Submission and approval of Building Commissioning Plan, test data, and reports: Develop the schedule logic associated with testing and commissioning of mechanical systems to a level of detail consistent with the contract commissioning requirements. All tasks associated with all building testing and commissioning will be completed prior to submission of building commissioning report and subsequent contract completion.
- k. Air and water balancing.
- l. Building commissioning - Functional Performance Testing.
- m. Controls testing plan submission.
- n. Controls testing.
- o. Performance Verification testing.
- p. Other systems testing, if required.
- q. Contractor's pre-final inspection.
- r. Correction of punch list from Contractor's pre-final inspection.
- s. Government's pre-final inspection.
- t. Correction of punch list from Government's pre-final inspection.
- u. Final inspection.

### 3.3.6 Government Activities

Show Government and other agency activities that could impact progress. These activities include, but are not limited to: submittal [approvals](#), [submittal and definable features of work acceptance](#), environmental permit approvals by State regulators, inspections, utility tie-in, Government Furnished Equipment (GFE) and Notice to Proceed (NTP) for phasing requirements.

### 3.3.7 Standard Activity Coding Dictionary

Use the activity coding structure defined in the Standard Data Exchange Format (SDEF) in [ER 1-1-11](#). This exact structure is mandatory. Develop and assign all Activity Codes to activities as detailed herein. A template SDEF compatible schedule backup file is available on the QCS web

site: <http://rms.usace.army.mil>.

The SDEF format is as follows:

Field	Activity Code	Length	Description
1	WRKP	3	Workers per day
2	RESP	4	Responsible party
3	AREA	4	Area of work
4	MODF	6	Modification Number
5	BIDI	6	Bid Item (CLIN)
6	PHAS	2	Phase of work
7	CATW	1	Category of work
8	FOW	20	Feature of work*
*Some systems require that FEATURE OF WORK values be placed in several activity code fields. The notation shown is for Primavera P6. Refer to the specific software guidelines with respect to the FEATURE OF WORK field requirements.			

#### 3.3.7.1 Workers Per Day (WRKP)

Assign Workers per Day for all field construction or direct work activities, if directed by the Contracting Officer. Workers per day is based on the average number of workers expected each day to perform a task for the duration of that activity.

#### 3.3.7.2 Responsible Party Coding (RESP)

Assign responsibility code for all activities to the Prime Contractor, Subcontractor(s) or Government agency(ies) responsible for performing the activity.

- a. Activities coded with a Government Responsibility code include, but are not limited to: Government approvals, Government design reviews, environmental permit approvals by State regulators, Government Furnished Property/Equipment (GFP) and Notice to Proceed (NTP) for phasing requirements.
- b. Activities cannot have more than one Responsibility Code. Examples of acceptable activity code values are: DOR (for the designer of record); ELEC (for the electrical subcontractor); MECH (for the mechanical subcontractor); and GOVT (for USACE).

#### 3.3.7.3 Area of Work Coding (AREA)

Assign Work Area code to activities based upon the work area in which the activity occurs. Define work areas based on resource constraints or space

constraints that would preclude a resource, such as a particular trade or craft work crew from working in more than one work area at a time due to restraints on resources or space. Examples of Work Area Coding include different areas within a floor of a building, different floors within a building, and different buildings within a complex of buildings. Activities cannot have more than one Work Area Code.

Not all activities are required to be Work Area coded. A lack of Work Area coding indicates the activity is not resource or space constrained.

#### 3.3.7.4 Modification Number (MODF)

Assign a Modification Number Code to any activity or sequence of activities added to the schedule as a result of a Contract Modification, when approved by Contracting Officer. Key all Code values to the Government's modification numbering system. An activity can have only one Modification Number Code.

#### 3.3.7.5 Bid Item Coding (BIDI)

Assign a Bid Item Code to all activities using the Contract Line Item Schedule (CLIN) to which the activity belongs, even when an activity is not cost loaded. An activity can have only one BIDI Code.

#### 3.3.7.6 Phase of Work Coding (PHAS)

Assign Phase of Work Code to all activities. Examples of phase of work are procurement phase and construction phase. Each activity can have only one Phase of Work code.

- a. Code proposed fast track design and construction phases proposed to allow filtering and organizing the schedule by fast track design and construction packages.
- b. If the contract specifies phasing with separately defined performance periods, identify a Phase Code to allow filtering and organizing the schedule accordingly.

#### 3.3.7.7 Category of Work Coding (CATW)

Assign a Category of Work Code to all activities. Category of Work Codes include, but are not limited to, [permits](#), construction submittal, procurement, fabrication, weather sensitive installation, non-weather sensitive installation, start-up, and testing activities. Each activity can have no more than one Category of Work Code.

#### 3.3.7.8 Feature of Work Coding (FOW)

Assign a Feature of Work Code to appropriate activities based on the Definable Feature of Work to which the activity belongs based on the approved QC plan.

Definable Feature of Work is defined in Section [01 45 00.00 10](#) QUALITY CONTROL. An activity can have only one Feature of Work Code.

#### 3.3.8 Contract Milestones and Constraints

Milestone activities are to be used for significant project events including, but not limited to, project phasing, project start and end



activities, or interim completion dates. The use of artificial float constraints such as "zero free float" or "zero total float" are prohibited.

Mandatory constraints that ignore or effect network logic are prohibited. No constrained dates are allowed in the schedule other than those specified herein. Submit additional constraints to the Contracting Officer for approval on a case by case basis.

#### 3.3.8.1 Project Start Date Milestone and Constraint

The first activity in the project schedule must be a start milestone titled "NTP Acknowledged," which must have a "Start On" constraint date equal to the date that the NTP is acknowledged.

#### 3.3.8.2 End Project Finish Milestone and Constraint

The last activity in the schedule must be a finish milestone titled "End Project."

Constrain the project schedule to the Contract Completion Date in such a way that if the schedule calculates an early finish, then the float calculation for "End Project" milestone reflects positive float on the longest path. If the project schedule calculates a late finish, then the "End Project" milestone float calculation reflects negative float on the longest path. The Government is under no obligation to accelerate Government activities to support a Contractor's early completion.

#### 3.3.8.3 Interim Completion Dates and Constraints

Constrain contractually specified interim completion dates to show negative float when the calculated late finish date of the last activity in that phase is later than the specified interim completion date.

##### 3.3.8.3.1 Start Phase

Use a start milestone as the first activity for a project phase. Call the start milestone "Start Phase X" where "X" refers to the phase of work.

##### 3.3.8.3.2 End Phase

Use a finish milestone as the last activity for a project phase. Call the finish milestone "End Phase X" where "X" refers to the phase of work.

#### 3.3.9 Calendars

Schedule activities on a Calendar to which the activity logically belongs. Develop calendars to accommodate any contract defined work period such as a 7-day calendar for Government Acceptance activities, concrete cure times, etc. Develop the default Calendar to match the physical work plan with non-work periods identified including weekends and holidays. Develop Seasonal Calendar(s) and assign to seasonally affected activities as applicable.

If an activity is weather sensitive it should be assigned to a calendar showing non-work days on a monthly basis, with the non-work days selected at random across the weeks of the calendar, using the anticipated adverse weather delay work days provided in the Special Contract Requirements. Assign non-work days over a seven-day week as weather records are compiled

on seven-day weeks, which may cause some of the weather-related non-work days to fall on weekends.

#### 3.3.10 Open Ended Logic

Only two open ended activities are allowed: the first activity "NTP Acknowledged" may have no predecessor logic, and the last activity -"End Project" may have no successor logic.

Predecessor open ended logic may be allowed in a time impact analyses upon the Contracting Officer's approval.

#### 3.3.11 Default Progress Data Disallowed

Actual Start and Finish dates must not automatically update with default mechanisms included in the scheduling software. Updating of the percent complete and the remaining duration of any activity must be independent functions. Disable program features that calculate one of these parameters from the other. Activity Actual Start (AS) and Actual Finish (AF) dates assigned during the updating process must match those dates provided in the Contractor Quality Control Reports. Failure to document the AS and AF dates in the Daily Quality Control report will result in disapproval of the Contractor's schedule.

#### 3.3.12 Out-of-Sequence Progress

Activities that have progressed before all preceding logic has been satisfied (Out-of-Sequence Progress) will be allowed only on a case-by-case basis subject to approval by the Contracting Officer. Propose logic corrections to eliminate out of sequence progress or justify not changing the sequencing for approval prior to submitting an updated project schedule. Address out of sequence progress or logic changes in the Narrative Report and in the periodic schedule update meetings.

#### 3.3.13 Added and Deleted Activities

Do not delete activities from the project schedule or add new activities to the schedule without approval from the Contracting Officer. Activity ID and description changes are considered new activities and cannot be changed without Contracting Officer approval.

#### 3.3.14 Original Durations

Activity Original Durations (OD) must be reasonable to perform the work item. OD changes are prohibited unless justification is provided and approved by the Contracting Officer.

#### 3.3.15 Leads, Lags, and Start to Finish Relationships

Lags must be reasonable as determined by the Government and not used in place of realistic original durations, must not be in place to artificially absorb float, or to replace proper schedule logic.

- a. Leads (negative lags) are prohibited.
- b. Start to Finish (SF) relationships are prohibited.

### 3.3.16 Retained Logic

Schedule calculations must retain the logic between predecessors and successors ("retained logic" mode) even when the successor activity(s) starts and the predecessor activity(s) has not finished (out-of-sequence progress). Software features that in effect sever the tie between predecessor and successor activities when the successor has started and the predecessor logic is not satisfied ("progress override") are not be allowed.

### 3.3.17 Percent Complete

Update the percent complete for each activity started, based on the realistic assessment of earned value. Activities which are complete but for remaining minor punch list work and which do not restrain the initiation of successor activities may be declared 100 percent complete to allow for proper schedule management.

### 3.3.18 Remaining Duration

Update the remaining duration for each activity based on the number of estimated work days it will take to complete the activity. Remaining duration may not mathematically correlate with percentage found under paragraph entitled Percent Complete.

### 3.3.19 Cost Loading of Closeout Activities

Cost load the "Correction of punch list from Government pre-final inspection" activity(ies) not less than 1 percent of the present contract value. Activity(ies) may be declared 100 percent complete upon the Government's verification of completion and correction of all punch list work identified during Government pre-final inspection(s).

#### 3.3.19.1 As-Built Drawings

If there is no separate contract line item (CLIN) for as-built drawings, cost load the "Submission and approval of as-built drawings" activity not less than \$35,000 or 1 percent of the present contract value, whichever is greater, up to \$200,000. Activity will be declared 100 percent complete upon the Government's approval.

#### 3.3.19.2 O & M Manuals

Cost load the "Submission and approval of O & M manuals" activity not less than \$20,000. Activity will be declared 100 percent complete upon the Government's approval of all O & M manuals.

### 3.3.20 Early Completion Schedule and the Right to Finish Early

An Early Completion Schedule is an Initial Project Schedule (IPS) that indicates all scope of the required contract work will be completed before the contractually required completion date.

- a. No IPS indicating an Early Completion will be accepted without being fully resource-loaded (including crew sizes and manhours) and the Government agreeing that the schedule is reasonable and achievable.
- b. The Government is under no obligation to accelerate work items it is responsible for to ensure that the early completion is met nor is it

responsible to modify incremental funding (if applicable) for the project to meet the contractor's accelerated work.

### 3.4 PROJECT SCHEDULE SUBMISSIONS

Provide the submissions as described below. The data CD/DVD, reports, and network diagrams required for each submission are contained in paragraph SUBMISSION REQUIREMENTS. If the Contractor fails or refuses to furnish the information and schedule updates as set forth herein, then the Contractor will be deemed not to have provided an estimate upon which a progress payment can be made.

Review comments made by the Government on the schedule(s) do not relieve the Contractor from compliance with requirements of the Contract Documents.

#### 3.4.1 Preliminary Project Schedule Submission

Within 15 calendar days after the NTP is acknowledged submit the [Preliminary Project Schedule](#) defining the planned operations detailed for the first 90 calendar days for approval. The approved Preliminary Project Schedule will be used for payment purposes not to exceed 90 calendar days after NTP. Completely cost load the Preliminary Project Schedule to balance the contract award CLINS shown on the Price Schedule. The Preliminary Project Schedule may be summary in nature for the remaining performance period. It must be early start and late finish constrained and logically tied as specified. The Preliminary Project Schedule forms the basis for the Initial Project Schedule specified herein and must include all of the required plan and program preparations, submissions and approvals identified in the contract (for example, Quality Control Plan, Safety Plan, and Environmental Protection Plan) as well as design activities, planned submissions of all early design packages, permitting activities, design review conference activities, and other non-construction activities intended to occur within the first 90 calendar days. Government acceptance of the associated design package(s) and all other specified Program and Plan approvals must occur prior to any planned construction activities. Activity code any activities that are summary in nature after the first 90 calendar days with Bid Item (CLIN) code (BIDI), Responsibility Code (RESP) and Feature of Work code (FOW).

#### 3.4.2 Initial Project Schedule Submission

Submit the [Initial Project Schedule](#) for approval within 42 calendar days after notice to proceed is issued. The schedule must demonstrate a reasonable and realistic sequence of activities which represent all work through the entire contract performance period. [Include in schedule permitting activities, including but not limited to, permit submissions and any required Government actions; and long lead item acquisition items. Also cover in the entire construction effort; include all construction start and completion milestones, and detailed construction activities through the dry-in milestone, including all activity coding and cost loading.](#) No payment will be made for work items not fully detailed in the Project Schedule.

#### 3.4.3 Periodic Schedule Updates

Update the Project Schedule on a regular basis, monthly at a minimum. Provide a draft Periodic Schedule Update for review at the schedule update meetings as prescribed in the paragraph PERIODIC SCHEDULE UPDATE MEETINGS. These updates will enable the Government to assess Contractor's

progress.

- a. Update information including Actual Start Dates (AS), Actual Finish Dates (AF), Remaining Durations (RD), and Percent Complete is subject to the approval of the Government at the meeting.
- b. AS and AF dates must match the date(s) reported on the Contractor's Quality Control Report for an activity start or finish.

### 3.5 SUBMISSION REQUIREMENTS

Submit the following items for the Preliminary Schedule, Initial Schedule, and every Periodic Schedule Update throughout the life of the project:

#### 3.5.1 Data CD/DVDs

Provide two sets of data CD/DVDs containing the current project schedule and all previously submitted schedules in the format of the scheduling software (e.g. .xer). Also include on the data CD/DVDs the Narrative Report and all required Schedule Reports. Label each CD/DVD indicating the type of schedule (Preliminary, Initial, Update), full contract number, Data Date and file name. Each schedule must have a unique file name and use project specific settings.

#### 3.5.2 Narrative Report

Provide a Narrative Report with each schedule submission. The Narrative Report is expected to communicate to the Government the thorough analysis of the schedule output and the plans to compensate for any problems, either current or potential, which are revealed through that analysis. Include the following information as minimum in the Narrative Report:

- a. Identify and discuss the work scheduled to start in the next update period.
- b. A description of activities along the two most critical paths where the total float is less than or equal to 20 work days.
- c. A description of current and anticipated problem areas or delaying factors and their impact and an explanation of corrective actions taken or required to be taken.
- d. Identify and explain why activities based on their calculated late dates should have either started or finished during the update period but did not.
- e. Identify and discuss all schedule changes by activity ID and activity name including what specifically was changed and why the change was needed. Include at a minimum new and deleted activities, logic changes, duration changes, calendar changes, lag changes, resource changes, and actual start and finish date changes.
- f. Identify and discuss out-of-sequence work.

#### 3.5.3 Schedule Reports

The format, filtering, organizing and sorting for each schedule report will be as directed by the Contracting Officer. Typically, reports contain Activity Numbers, Activity Description, Original Duration,

Remaining Duration, Early Start Date, Early Finish Date, Late Start Date, Late Finish Date, Total Float, Actual Start Date, Actual Finish Date, and Percent Complete. Provide the reports electronically in .pdf format. Provide three sets of hardcopy reports. The following lists typical reports that will be requested:

#### 3.5.3.1 Activity Report

List of all activities sorted according to activity number.

#### 3.5.3.2 Logic Report

List of detailed predecessor and successor activities for every activity in ascending order by activity number.

#### 3.5.3.3 Total Float Report

A list of all incomplete activities sorted in ascending order of total float. List activities which have the same amount of total float in ascending order of Early Start Dates. Do not show completed activities on this report.

#### 3.5.3.4 Earnings Report by CLIN

A compilation of the Total Earnings on the project from the NTP to the data date, which reflects the earnings of activities based on the agreements made in the schedule update meeting defined herein. Provided a complete schedule update has been furnished, this report serves as the basis of determining progress payments. Group activities by CLIN number and sort by activity number. Provide a total CLIN percent earned value, CLIN percent complete, and project percent complete. The printed report must contain the following for each activity: the Activity Number, Activity Description, Original Budgeted Amount, Earnings to Date, Earnings this period, Total Quantity, Quantity to Date, and Percent Complete (based on cost).

#### 3.5.3.5 Schedule Log

Provide a Scheduling/Leveling Report generated from the current project schedule being submitted.

#### 3.5.4 Network Diagram

The Network Diagram is required for the Preliminary, Initial and Periodic Updates. Depict and display the order and interdependence of activities and the sequence in which the work is to be accomplished. The Contracting Officer will use, but is not limited to, the following conditions to review compliance with this paragraph:

##### 3.5.4.1 Continuous Flow

Show a continuous flow from left to right with no arrows from right to left. Show the activity number, description, duration, and estimated earned value on the diagram.

##### 3.5.4.2 Project Milestone Dates

Show dates on the diagram for start of project, any contract required interim completion dates, and contract completion dates.

#### 3.5.4.3 Critical Path

Show all activities on the critical path. The critical path is defined as the longest path.

#### 3.5.4.4 Banding

Organize activities using the WBS or as otherwise directed to assist in the understanding of the activity sequence. Typically, this flow will group activities by major elements of work, category of work, work area and/or responsibility.

#### 3.5.4.5 Cash Flow / Schedule Variance Control (SVC) Diagram

With each schedule submission, provide a SVC diagram showing 1) Cash Flow S-Curves indicating planned project cost based on projected early and late activity finish dates, and 2) Earned Value to-date.

### 3.6 PERIODIC SCHEDULE UPDATE

#### 3.6.1 Periodic Schedule Update Meetings

Conduct periodic schedule update meetings for the purpose of reviewing the proposed Periodic Schedule Update, Narrative Report, Schedule Reports, and progress payment. Conduct meetings at least monthly within five days of the proposed schedule data date. Provide a computer with the scheduling software loaded and a projector which allows all meeting participants to view the proposed schedule during the meeting. The Contractor's authorized scheduler must organize, group, sort, filter, perform schedule revisions as needed and review functions as requested by the Contractor and/or Government. The meeting is a working interactive exchange which allows the Government and Contractor the opportunity to review the updated schedule on a real time and interactive basis. The meeting will last no longer than 8 hours. Provide a draft of the proposed narrative report and schedule data file to the Government a minimum of two workdays in advance of the meeting. The Contractor's Project Manager and scheduler must attend the meeting with the authorized representative of the Contracting Officer. Superintendents, foremen and major subcontractors must attend the meeting as required to discuss the project schedule and work. Following the periodic schedule update meeting, make corrections to the draft submission. Include only those changes approved by the Government in the submission and invoice for payment.

#### 3.6.2 Update Submission Following Progress Meeting

Submit the complete [Periodic Schedule Update](#) of the Project Schedule containing all approved progress, revisions, and adjustments, pursuant to paragraph SUBMISSION REQUIREMENTS not later than 4 work days after the periodic schedule update meeting.

### 3.7 WEEKLY PROGRESS MEETINGS

Conduct a weekly meeting with the Government (or as otherwise mutually agreed to) between the meetings described in paragraph entitled PERIODIC SCHEDULE UPDATE MEETINGS for the purpose of jointly reviewing the actual progress of the project as compared to the as planned progress and to review planned activities for the upcoming two weeks. Use the current approved schedule update for the purposes of this meeting and for the

production and review of reports. At the weekly progress meeting, address the status of RFIs, RFPs and Submittals.

### 3.8 REQUESTS FOR TIME EXTENSIONS

Provide a justification of delay to the Contracting Officer in accordance with the contract provisions and clauses for approval within 10 days of a delay occurring. Also prepare a time impact analysis for each Government request for proposal (RFP) to justify time extensions.

#### 3.8.1 Justification of Delay

Provide a description of the event(s) that caused the delay and/or impact to the work. As part of the description, identify all schedule activities impacted. Show that the event that caused the delay/impact was the responsibility of the Government. Provide a time impact analysis that demonstrates the effects of the delay or impact on the project completion date or interim completion date(s). Evaluate multiple impacts chronologically; each with its own justification of delay. With multiple impacts consider any concurrency of delay. A time extension and the schedule fragnet becomes part of the project schedule and all future schedule updates upon approval by the Contracting Officer.

#### 3.8.2 Time Impact Analysis (Prospective Analysis)

Prepare a time impact analysis for approval by the Contracting Officer based on industry standard [ACE 52R-06](#). Utilize a copy of the last approved schedule prior to the first day of the impact or delay for the time impact analysis. If Contracting Officer determines the time frame between the last approved schedule and the first day of impact is too great, prepare an interim updated schedule to perform the time impact analysis. Unless approved by the Contracting Officer, no other changes may be incorporated into the schedule being used to justify the time impact.

#### 3.8.3 Forensic Schedule Analysis (Retrospective Analysis)

Prepare an analysis for approval by the Contracting Officer based on industry standard [ACE 29R-03](#).

#### 3.8.4 Fragmentary Network (Fragnet)

Prepare a proposed fragnet for time impact analysis consisting of a sequence of new activities that are proposed to be added to the project schedule to demonstrate the influence of the delay or impact to the project's contractual dates. Clearly show how the proposed fragnet is to be tied into the project schedule including all predecessors and successors to the fragnet activities. The proposed fragnet must be approved by the Contracting Officer prior to incorporation into the project schedule.

#### 3.8.5 Time Extension

The Contracting Officer must approve the Justification of Delay including the time impact analysis before a time extension will be granted. No time extension will be granted unless the delay consumes all available Project Float and extends the projected finish date ("End Project" milestone) beyond the Contract Completion Date. The time extension will be in calendar days.



Actual delays that are found to be caused by the Contractor's own actions, which result in a calculated schedule delay will not be a cause for an extension to the performance period, completion date, or any interim milestone date.

### 3.8.6 Impact to Early Completion Schedule

No extended overhead will be paid for delay prior to the original Contract Completion Date for an Early Completion IPS unless the Contractor actually performed work in accordance with that Early Completion Schedule. The Contractor must show that an early completion was achievable had it not been for the impact.

### 3.9 FAILURE TO ACHIEVE PROGRESS

Should the progress fall behind the approved project schedule for reasons other than those that are excusable within the terms of the contract, the Contracting Officer may require provision of a written recovery plan for approval. The plan must detail how progress will be made-up to include which activities will be accelerated by adding additional crews, longer work hours, extra work days, etc.

#### 3.9.1 Artificially Improving Progress

Artificially improving progress by means such as, but not limited to, revising the schedule logic, modifying or adding constraints, shortening activity durations, or changing calendars in the project schedule is prohibited. Indicate assumptions made and the basis for any logic, constraint, duration and calendar changes used in the creation of the recovery plan. Any additional resources, manpower, or daily and weekly work hour changes proposed in the recovery plan must be evident at the work site and documented in the daily report along with the Schedule Narrative Report.

#### 3.9.2 Failure to Perform

Failure to perform work and maintain progress in accordance with the supplemental recovery plan may result in an interim and final unsatisfactory performance rating and may result in corrective action directed by the Contracting Officer pursuant to FAR 52.236-15 Schedules for Construction Contracts, FAR 52.249-10 Default (Fixed-Price Construction), and other contract provisions.

#### 3.9.3 Recovery Schedule

Should the Contracting Officer find it necessary, submit a recovery schedule pursuant to FAR 52.236-15 Schedules for Construction Contracts.

### 3.10 OWNERSHIP OF FLOAT

Except for the provision given in the paragraph IMPACT TO EARLY COMPLETION SCHEDULE, float available in the schedule, at any time, may not be considered for the exclusive use of either the Government or the Contractor including activity and/or project float. Activity float is the number of work days that an activity can be delayed without causing a delay to the "End Project" finish milestone. Project float (if applicable) is the number of work days between the projected early finish and the contract completion date milestone.

### 3.11 TRANSFER OF SCHEDULE DATA INTO RMS/QCS

Import the schedule data into the Quality Control System (QCS) and export the QCS data to the Government. This data is considered to be additional supporting data in a form and detail required by the Contracting Officer pursuant to FAR 52.232-5 Payments under Fixed-Price Construction Contracts. The receipt of a proper payment request pursuant to FAR 52.232-27 Prompt Payment for Construction Contracts is contingent upon the Government receiving both acceptable and approvable hard copies and matching electronic export from QCS of the application for progress payment.

### 3.12 PRIMAVERA P6 MANDATORY REQUIREMENTS

If Primavera P6 is being used, request a backup file template (.xer) from the Government, if one is available, prior to building the schedule. The following settings are mandatory and required in all schedule submissions to the Government:

- a. Activity Codes must be Project Level, not Global or EPS level.
- b. Calendars must be Project Level, not Global or Resource level.
- c. Activity Duration Types must be set to "Fixed Duration & Units".
- d. Percent Complete Types must be set to "Physical".
- e. Time Period Admin Preferences must remain the default "8.0 hr/day, 40 hr/week, 172 hr/month, 2000 hr/year". Set Calendar Work Hours/Day to 8.0 Hour days.
- f. Set Schedule Option for defining Critical Activities to "Longest Path".
- g. Set Schedule Option for defining progressed activities to "Retained Logic".
- h. Set up cost loading using a single lump sum labor resource. The Price/Unit must be \$1/hr, Default Units/Time must be "8h/d", and settings "Auto Compute Actuals" and "Calculate costs from units" selected.
- i. Activity ID's must not exceed 10 characters.
- j. Activity Names must have the most defining and detailed description within the first 30 characters.

-- End of Section --

## SECTION 01 33 00

### SUBMITTAL PROCEDURES

#### PART 1 GENERAL

##### 1.1 SUMMARY

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

Units of weights and measures used on all submittals 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 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 (MSDS) and in compliance with existing laws and regulations.

A submittal register showing items of equipment and materials for when submittals are required by the specifications is provided as "Appendix A - Submittal Register".

##### 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.

Certificates of insurance

Surety bonds

List of proposed Subcontractors

List of proposed products

Construction progress schedule

Network Analysis Schedule (NAS)

Submittal register

Schedule of prices or Earned Value Report

Health and safety plan

Work plan

Quality Control(QC) plan

Environmental protection plan

#### SD-02 Shop Drawings

Drawings, diagrams and schedules specifically prepared to illustrate some portion of the work.

Diagrams and instructions from a manufacturer or fabricator for use in producing the product and as aids to the Contractor for integrating the product or system into the project.

Drawings prepared by or for the Contractor to show how multiple systems and interdisciplinary work will be coordinated.

#### SD-03 Product Data

Catalog cuts, illustrations, schedules, diagrams, performance charts, instructions and brochures illustrating size, physical appearance and other characteristics of materials, systems or equipment for some portion of the work.

Samples of warranty language when the contract requires extended product warranties.

#### SD-04 Samples

Fabricated or unfabricated physical examples of materials, equipment or workmanship that illustrate functional and aesthetic characteristics of a material or product and establish standards by which the work can be judged.

Color samples from the manufacturer's standard line (or custom color samples if specified) to be used in selecting or approving colors for the project.

Field samples and mock-ups constructed on the project site establish standards by which the ensuring work can be judged. Includes assemblies or portions of assemblies which are to be incorporated into the project and those which will be removed at conclusion of the work.

#### SD-05 Design Data

Design calculations, mix designs, analyses or other data pertaining to a part of 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. Unless specified in another section, 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 the 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 document purpose is to further promote the 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-08 Manufacturer's Instructions

Preprinted material describing installation of a product, system or material, including special notices and (MSDS) concerning impedances, hazards and safety precautions.

#### SD-09 Manufacturer's Field Reports

Documentation of the testing and verification actions taken by manufacturer's representative at the job site, in the vicinity of the job site, or on a sample taken from the job site, on a portion of the work, during or after installation, to confirm compliance with manufacturer's standards or instructions. The documentation must be signed by an authorized official of a testing laboratory or agency and state the test results; and indicate whether the material, product, or

system has passed or failed the test.

Factory test reports.

#### SD-10 Operation and Maintenance Data

Data that is furnished by the manufacturer, or the system provider, to the equipment operating and maintenance personnel, including manufacturer's help and product line documentation necessary to maintain and install equipment. This data is needed by operating and maintenance personnel for the safe and efficient operation, maintenance and repair of the item.

This data is intended to be incorporated in an operations and maintenance manual or control system.

#### SD-11 Closeout Submittals

Documentation to record compliance with technical or administrative requirements or to establish an administrative mechanism.

Submittals required for Guiding Principle Validation (GPV) or Third-Party Certification (TPC).

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.

#### 1.2.3 Work

As used in this section, on- and off-site construction required by contract documents, including labor necessary to produce submittals, [except those SD-01 Pre-Construction Submittals noted above](#), construction, materials, products, equipment, and systems incorporated or to be incorporated in such construction.

#### 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. Submittals with an "S" are for inclusion in the Sustainability Notebook, in conformance to Section [01 33 29](#) SUSTAINABILITY REPORTING. Submit the following in accordance with this section.

#### SD-01 Preconstruction Submittals

[Submittal Register; G](#)

#### 1.4 SUBMITTAL CLASSIFICATION

Submittals are classified as follows:

#### 1.4.1 Designer of Record Approved (DA)

Not used.

#### 1.4.2 Government Approved (G)

Within the terms of the Contract Clause SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION, they are considered to be "shop drawings."

#### 1.4.3 For Information Only

They are not considered to be "shop drawings" within the terms of the Contract Clause referred to above.

#### 1.4.4 Sustainability Reporting Submittals (S)

Submittals for Guiding Principle Validation (GPV) or Third-Party Certification (TPC) are indicated with an "S" designation. Submit the information required by the technical sections that demonstrates compliance with the sustainable requirement, and for inclusion in the Sustainability Notebook as required by Section 01 33 29 SUSTAINABILITY REPORTING. A full submittal for an item may be provided under another SD; however, for the "S" submittal, only provide that portion of the submittal that demonstrates compliance with the sustainable requirement. If the sustainable submittal does require Government Approval, it may be tagged under another SD with a "G."

Schedule submittals for these items throughout the course of construction as provided; do not wait until closeout.

### 1.5 PREPARATION

#### 1.5.1 Transmittal Form

Use the transmittal ENG Form 4025-R for submitting both Government approved and information only submittals in accordance with the instructions on the reverse side of the form. These forms will be furnished to the Contractor. 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.

#### 1.5.2 Source Drawings for Shop Drawings

The entire set of Source Drawing files (DWG) will not be provided to the Contractor. Only those requested by the Contractor to prepare shop drawings may be provided. Request the specific Drawing Number only for the preparation of Shop Drawings. These drawings may only be provided after award.

##### 1.5.2.1 Terms and Conditions

Data contained on these electronic files must not be used for any purpose other than as a convenience in the preparation of construction data for the referenced project. Any other use or reuse shall be at the sole risk of the Contractor and without liability or legal exposure to the Government. The Contractor must make no claim and waives to the fullest extent permitted by law, any claim or cause of action of any nature

against the Government, its agents or sub consultants that may arise out of or in connection with the use of these electronic files. The Contractor must, to the fullest extent permitted by law, indemnify and hold the Government harmless against all damages, liabilities or costs, including reasonable attorney's fees and defense costs, arising out of or resulting from the use of these electronic files.

These electronic Source Drawing files are not construction documents. Differences may exist between the Source Drawing files and the corresponding construction documents. The Government makes no representation regarding the accuracy or completeness of the electronic Source Drawing files, nor does it make representation to the compatibility of these files with the Contractor hardware or software. In the event that a conflict arises between the signed and sealed construction documents prepared by the Government and the furnished Source Drawing files, the signed and sealed construction documents govern. The Contractor is responsible for determining if any conflict exists. Use of these Source Drawing files does not relieve the Contractor of duty to fully comply with the contract documents, including and without limitation, the need to check, confirm and coordinate the work of all contractors for the project. If the Contractor uses, duplicates or modifies these electronic Source Drawing files for use in producing construction data related to this contract, remove all previous indicia of ownership (seals, logos, signatures, initials and dates).

### 1.5.3 Electronic File Format

Provide submittals in electronic format, with the exception of material samples required for SD-04 Samples items. In addition to the electronic submittal, provide three hard copies of the submittals. Compile the submittal file as a single, complete document, to include the Transmittal Form described within. Name the electronic submittal file specifically according to its contents, coordinate the file naming convention with the Contracting Officer. Electronic files must be of sufficient quality that all information is legible. Use PDF as the electronic format, unless otherwise specified or directed by the Contracting Officer. Generate PDF files from original documents with bookmarks so that the text included in the PDF file is both searchable and can be copied. If documents are scanned, Optical Character Resolution (OCR) routines are required. Index and bookmark files exceeding 30 pages to allow efficient navigation of the file. When required, the electronic file must include a valid electronic signature, or scan of a signature.

Email electronic submittal documents fewer than 10MB to an email address as directed by the Contracting Officer. Provide electronic documents over 10MB on an optical disc, or through an electronic file sharing system such as the AMRDEC SAFE Web Application located at the following website:  
<https://safe.amrdec.army.mil/safe/>.

Provide hard copies of submittals when requested by the Contracting Officer. Up to three additional hard copies of any submittal may be requested at the discretion of the Contracting Officer, at no additional cost to the Government.

## 1.6 QUANTITY OF SUBMITTALS

### 1.6.1 Number of Samples SD-04 Samples

- a. Submit three samples, or three sets of samples showing range of



variation, of each required item. One approved sample or set of samples will be retained by approving authority and one will be returned to Contractor.

- b. Submit one sample panel or provide one sample installation where directed. Include components listed in technical section or as directed.
- c. Submit one sample installation, where directed.
- d. Submit one sample of non-solid materials.

#### 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 in the Government-furnished submittal register program or equivalent fields in program utilized by Contractor 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 in the Government-furnished submittal register program or equivalent fields in program utilized by Contractor.

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 VARIATIONS

Variations from contract requirements require both Designer of Record (DOR) and Government approval pursuant to contract Clause FAR 52.236-21 and will be considered where advantageous to Government.

#### 1.9.1 Considering Variations

Discussion with Contracting Officer prior to submission, after consulting with the DOR, will help ensure functional and quality requirements are met and minimize rejections and re-submittals. When contemplating a variation

which results in lower cost, consider submission of the variation as a Value Engineering Change Proposal (VECP).

Specifically point out variations from contract requirements in transmittal letters. Failure to point out deviations may result in the Government requiring rejection and removal of such work at no additional cost to the Government.

#### 1.9.2 Proposing Variations

When proposing variation, deliver written request to the Contracting Officer, with documentation of the nature and features of the variation and why the variation is desirable and beneficial to Government, including the DOR's written analysis and approval. If lower cost is a benefit, also include an estimate of the cost savings. In addition to documentation required for variation, include the submittals required for the item. Clearly mark the proposed variation in all documentation.

Check the column "variation" of ENG Form 4025 for submittals which include proposed deviations requested by the Contractor. Set forth in writing the reason for any deviations and annotate such deviations on the submittal. The Government reserves the right to rescind inadvertent approval of submittals containing unnoted deviations.

#### 1.9.3 Warranting that Variations are Compatible

When delivering a variation for approval, Contractor, including its Designer(s) of Record, warrants that this contract has been reviewed to establish that the variation, if incorporated, will be compatible with other elements of work.

#### 1.9.4 Review Schedule Extension

In addition to normal submittal review period, a period of 10 working days will be allowed for consideration by the Government of submittals with variations.

### 1.10 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. An additional 10 calendar days will be allowed and shown on the register for review and approval of submittals for food service equipment and refrigeration and HVAC control systems.

- 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."

#### 1.11 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 REVIEW NOTATIONS and with markings appropriate for action indicated.

Upon completion of review of submittals requiring Government approval, stamp and date submittals. Two copies of the submittal will be retained by the Contracting Officer and one copy of the submittal will be returned to the Contractor. *If the Government performs a conformance review of other Designer of Record approved submittals, the submittals will be so identified and returned, as described above.*

##### 1.11.1 Review Notations

*Contracting Officer review will be completed within 10 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.

#### 1.12 DISAPPROVED OR REJECTED SUBMITTALS

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 FAR 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, 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.

#### 1.13 APPROVED OR 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 submittals have been received.

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.

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.

#### 1.14 APPROVED SAMPLES

Approval of a sample is only for the characteristics or use named in such approval and is not be construed to change or modify any contract requirements. Before submitting samples, the Contractor to assure that the materials or equipment will be available in quantities required in the project. No change or substitution will be permitted after a sample has been approved.

Match the approved samples for materials and equipment incorporated in the work. If requested, approved samples, including those which may be damaged in testing, will be returned to the Contractor, at his expense, upon completion of the contract. Samples not approved will also be returned to the Contractor at its expense, if so requested.

Failure of any materials to pass the specified tests will be sufficient cause for refusal to consider, under this contract, any further samples of the same brand or make of that material. Government reserves the right to disapprove any material or equipment which previously has proved unsatisfactory in service.

Samples of various materials or equipment delivered on the site or in place may be taken by the Contracting Officer for testing. Samples failing to meet contract requirements will automatically void previous approvals. Contractor to replace such materials or equipment to meet contract requirements.

Approval of the Contractor's samples by the Contracting Officer does not relieve the Contractor of his responsibilities under the contract.

#### 1.15 WITHHOLDING OF PAYMENT

Payment for materials incorporated in the work will not be made if required approvals have not been obtained. No payment for materials incorporated in the work will be made unless all required DOR approvals or required Government approvals have been obtained. No payment will be made for any materials incorporated into the work for any conformance review submittals or information-only submittals found to contain errors or deviations from the Solicitation or Accepted Proposal.

#### 1.16 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: _____	

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

-- End of Section --

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# SUBMITTAL REGISTER

CONTRACT NO.  
DB

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		01 11 00	SD-01 Preconstruction Submittals Salvage Plan	1.7	G S												
		01 14 00	SD-01 Preconstruction Submittals List of Contact Personnel	1.3.1.1	G												
		01 20 00	SD-01 Preconstruction Submittals Area Use Plan	1.3	G												
		01 30 00	SD-01 Preconstruction Submittals View Location Map	1.3	G												
			Progress and Completion	1.4	G												
			Pictures														
		01 32 01.00 10	SD-01 Preconstruction Submittals Project Scheduler Qualifications	1.3	G												
			Preliminary Project Schedule	3.4.1	G												
			Initial Project Schedule	3.4.2	G												
			Periodic Schedule Update	3.6.2	G												
		01 33 00	SD-01 Preconstruction Submittals Submittal Register	1.8	G												
		01 33 29	SD-01 Preconstruction Submittals Preliminary High Performance and Sustainable Building Checklist	1.5.3.1	GECD												
			Sustainability Action Plan	1.4.1	GECD												
			Preliminary Sustainability eNotebook	1.5.3.1	GECD												
			SD-11 Closeout Submittals Final High Performance and Sustainable Building Checklist	1.5.3.1	GECD												

# SUBMITTAL REGISTER

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		01 33 29	Final Sustainability eNotebook	1.5.3.1	GECDF												
			Amended Final Sustainability eNotebook	1.5.3.1	GECDF												
			Amended Final High Performance and Sustainable Building Checklist	1.5.3.1	GECDF												
			Third Party Certification Certificate, Assessment, or Validation	3.2	GECDF												
		01 35 26	SD-01 Preconstruction Submittals														
			Accident Prevention Plan (APP)	1.7	G												
			SD-06 Test Reports														
			Monthly Exposure Reports	1.4													
			Notifications and Reports	1.12													
			Accident Reports	1.12.2	G												
			LHE Inspection Reports	1.12.3													
			SD-07 Certificates														
			Crane Operators/Riggers	1.6.1.4													
			Standard Lift Plan	1.7.2.3	G												
			Critical Lift Plan	1.7.2.4	G												
			Activity Hazard Analysis (AHA)	1.8													
			Confined Space Entry Permit	1.9.1													
			Hot Work Permit	1.9.1													
			Certificate of Compliance	1.12.4													
			License Certificates														

# SUBMITTAL REGISTER

CONTRACT NO.  
DB

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		01 35 26	Radiography Operation Planning Work Sheet		G												
			Portable Gauge Operations Planning Worksheet		G												
		01 45 00.00 10	SD-01 Preconstruction Submittals														
			Contractor Quality Control (CQC) Plan	3.2	G												
			SD-06 Test Reports Verification Statement	3.9.2													
		01 45 35	SD-01 Preconstruction Submittals														
			Project Manual	3.1.2	G												
			Written Practices	3.1.2													
			NDT Procedures and Equipment Calibration Records	3.1.2													
			SD-06 Test Reports Daily Reports	3.1.2													
			Biweekly Reports	3.1.1													
			SD-07 Certificates Fabrication Plant	2.1													
			Steel Truss Plant	2.1													
			Wood Truss Plant	2.1													
			Steel Joist Institute Membership	2.1													
			Certified Plant	2.1													
			Certificate of Compliance	2.1													
			Special Inspector	1.5	G												
			Qualification Records	3.1.2													

# SUBMITTAL REGISTER

CONTRACT NO.  
DB

TITLE AND LOCATION

Combat Rescue Helicopter (CRH) Simulator Facility ADAL

CONTRACTOR

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		01 45 35	SD-11 Closeout Submittals														
			Interim Final Report	3.1.2													
			Comprehensive Final Report	3.1.2	G												
		01 50 00	SD-01 Preconstruction Submittals														
			Construction Site Plan	1.3	G												
			Traffic Control Plan	3.4.1	G												
			Haul Road Plan	2.2.1	G												
			SD-06 Test Reports														
			Backflow Preventer Tests	2.5													
			SD-07 Certificates														
			Backflow Tester	1.4.1													
			Backflow Preventers	1.4													
		01 57 19	SD-01 Preconstruction Submittals														
			Preconstruction Survey	1.5.1													
			Solid Waste Management Permit	1.9	G												
			Regulatory Notifications	1.5.2	G												
			Environmental Protection Plan	1.6	G ECGE												
			Stormwater Notice of Intent	3.2.1.2	G ECGE												
			Dirt and Dust Control Plan	1.6.9.1	G												
			Employee Training Records		G												
			Environmental Manager	1.5.4	G												
			Qualifications														
			SD-06 Test Reports														
			Laboratory Analysis														
			Inspection Reports	3.2.1.3													
			Solid Waste Management Report	3.7.2.1	G ECGE												

# SUBMITTAL REGISTER

CONTRACT NO.  
DB

TITLE AND LOCATION

Combat Rescue Helicopter (CRH) Simulator Facility ADAL

CONTRACTOR

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		01 57 19	SD-07 Certificates														
			Employee Training Records		G ECGE												
			Certificate of Competency														
			Erosion and Sediment Control														
			Inspector														
			SD-11 Closeout Submittals														
			Stormwater Pollution Prevention	3.2.1.4	G												
			Plan Compliance Notebook														
			Stormwater Notice of Termination	3.2.1.5	G												
			Waste Determination	3.7.1	G												
			Documentation														
			Disposal Documentation for	3.7.3.6	G												
			Hazardous and Regulated Waste														
			Assembled Employee Training		G												
			Records														
			Solid Waste Management Permit	1.9	G												
			Solid Waste Management Report	3.7.2.1	G												
			Hazardous Waste/Debris	3.7.3.1	G												
			Management														
			Regulatory Notifications	1.5.2	G												
			Sales Documentation	3.7.2.1	G												
			Contractor Certification	3.7.2.1													
			As-Built Topographic Survey	3.2.1.5													
		01 58 00	SD-02 Shop Drawings														
			Preliminary One Line	1.3.1.1	G												
			Sign Legend Orders	1.4	G												

# SUBMITTAL REGISTER

CONTRACT NO.  
DB

TITLE AND LOCATION

Combat Rescue Helicopter (CRH) Simulator Facility ADAL

CONTRACTOR

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		01 58 00	SD-04 Samples														
			Final Rendering	1.3.1.2	G												
			Final Framed Rendering	1.3.1.3	G												
		01 72 80	SD-01 Preconstruction Submittals														
			Draft DD Form 1354	1.2	G												
			Draft DD Form 1354	1.2	G												
			SD-11 Closeout Submittals														
			Interim DD Form 1354	1.2	G												
			Interim DD Form 1354	1.2	G												
			Interim DD Form 1354	1.6	G												
		01 74 19	SD-01 Preconstruction Submittals														
			Waste Management Plan	1.6	G ECGE												
			SD-11 Closeout Submittals														
			Records	1.7	S												
		01 78 00	SD-03 Product Data														
			Warranty Management Plan	1.7.1													
			Warranty Tags	1.7.4													
			Spare Parts Data	1.5													
			Final Cleaning	3.8													
			SD-08 Manufacturer's Instructions														
			Instructions	1.7.1													
			SD-10 Operation and Maintenance														
			Data														
			Operation and Maintenance	3.7	G												
			Manuals														
			SD-11 Closeout Submittals														

# SUBMITTAL REGISTER

CONTRACT NO.  
DB

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Combat Rescue Helicopter (CRH) Simulator Facility ADAL																	
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		01 78 00	As-Built Drawings	3.1	G												
			Record Drawings	3.3	G												
			As-Built Record of Equipment and Materials	3.6													
			Final Approved Shop Drawings	3.4													
			Construction Contract	3.5													
			Specifications														
			Certification of EPA Designated Items	2.1	G S												
			Interim DD FORM 1354	3.9	G												
			Checklist for DD FORM 1354	3.9	G												
			High Performance and Sustainable Building (HPSB) Checklist	3.9	S												
		01 78 23	SD-10 Operation and Maintenance Data														
			O&M Database	1.5	G												
			Training Plan	3.1.1	G												
			Training Outline	3.1.3	G												
			Training Content	3.1.2	G												
			Draft Operation And Maintenance Manual	1.3.1	G												
			Final Operation And Maintenance Manual	1.3.1	G												
			Final Production Submittal	1.4.2.1	G												
			SD-11 Closeout Submittals														

# SUBMITTAL REGISTER

CONTRACT NO.  
DB

TITLE AND LOCATION

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		01 78 23	Training Video Recording	3.1.4	G												
			Validation of Training Completion	3.1.6	G												
		01 78 24.00 10	SD-01 Preconstruction Submittals														
			Facility Data Project Execution Plan	1.4.1													
			SD-05 Design Data														
			Facility Data Workbook, Design		G												
			Facility Document Set, Design		G												
		01 91 00.15	SD-01 Preconstruction Submittals														
			Commissioning Firm	1.7	G DO												
			Lead Commissioning Specialist	1.7.1	G DO												
			Technical Commissioning Specialists	1.7.2	G DO												
			Commissioning Firm's Contract	1.7	G DO												
			SD-06 Test Reports														
			Interim Construction Phase Commissioning Plan	3.1.2.1	G DO												
			Interim Construction Phase Commissioning Plan	3.1.2.1	G DO												
			Final Construction Phase Commissioning Plan	3.1.2.2	G DO S												
			Template Building Envelope Inspection Checklists	3.1.2.1.3	G DO												
			Building Envelope Inspection Checklists	3.1.4.2	G DO S												
			Pre-Functional Checklists	3.1.4.3	G DO												



# SUBMITTAL REGISTER

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		01 91 00.15	Issues Log	1.8													
			Commissioning Report	3.2	G DO												
			Post-Construction Trend Log Report	3.3.1	G DO												
			SD-07 Certificates														
			Certificate of Readiness	1.9	G DO												
			SD-10 Operation and Maintenance Data														
			Training Plan	3.1.5	G RO												
			Training Attendance Rosters	3.1.5	G RO												
			Systems Manual and Computerized Maintenance Management System Manual	3.1.6	G DO												
			Maintenance and Service Life Plans	3.1.7	G DO												
		02 41 00	SD-01 Preconstruction Submittals														
			Demolition Plan	1.2.2	G S												
			Existing Conditions	1.9	S												
			SD-07 Certificates Notification	1.6	G												
			SD-11 Closeout Submittals Receipts	3.3.4	S												
		02 82 00	SD-03 Product Data														
			Amended Water	1.2.2	G												
			Safety Data Sheets (SDS) for All Materials	1.3.9	G S												

# SUBMITTAL REGISTER

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		02 82 00	Encapsulants	2.1	G												
			Respirators	3.1.2.1	G												
			Local Exhaust Equipment	3.1.7	G												
			Pressure Differential Automatic Recording Instrument	3.1.7	G												
			Vacuums	3.1.8	G												
			SD-06 Test Reports														
			Air Sampling Results	1.5.5	G												
			Pressure Differential Recordings for Local Exhaust System	1.5.6	G												
			Clearance Sampling	3.2.13.5	G												
			Asbestos Disposal Quantity Report	3.3.3.2	G												
			SD-07 Certificates														
			Employee Training	1.3.4	G												
			Notifications	1.3.5	G												
			Respiratory Protection Program	1.3.7	G												
			Asbestos Hazard Abatement Plan	1.3.10	G												
			Testing Laboratory	1.3.11	G												
			Landfill Approval	1.3.12	G												
			Delivery Tickets	1.3.12	G												
			Waste Shipment Records	1.3.12	G												
			Transporter Certification	1.3.13	G												
			Medical Certification	1.3.14	G												
			Private Qualified Person Documentation	1.5.1	G												

# SUBMITTAL REGISTER

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		02 82 00	Competent Person	1.5.2	G												
			Worker's License	1.5.3	G												
			Contractor's License	1.5.4	G												
			Federal, State or Local Citations on Previous Projects	1.5.7	G												
			Encapsulants	2.1	G												
			Equipment Used to Contain Airborne Asbestos Fibers	3.1	G												
			Water Filtration Equipment	3.1.3.3	G												
			Vacuums	3.1.8	G												
			Ventilation Systems	3.1.8	G												
			SD-11 Closeout Submittals														
			Permits and Licenses	1.3.5	G												
			Notifications	1.3.5	G												
			Respirator Program Records	1.3.7.1	G												
			Rental Equipment	1.7.1	G												
		02 83 00	SD-01 Preconstruction Submittals														
			Competent Person	1.5.1.1	G												
			Training Certification	1.5.1.2	G												
			Medical Examinations	1.5.2.4	G												
			Lead, Cadmium, Chromium Waste Management Plan	1.5.2.8	G S												
			Occupant Protection Plan	1.5.4	G												
			Lead, Cadmium, Chromium Compliance Plan	1.5.2.2	G S												

# SUBMITTAL REGISTER

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		02 83 00	Lead, Cadmium, Chromium Compliance Plan	3.1.1.6	G S												
			Written Evidence of TSD Approval	3.5.2.1	G												
			SD-03 Product Data														
			Respirators	1.6.1	G												
			Vacuum Filters	1.6.4	G												
			Negative Air Pressure System	1.6.7	G												
			Materials and Equipment	2.1	G												
			Expendable Supplies	2.1.1	G												
			Local Exhaust Equipment	3.1.1.5	G												
			Pressure Differential Automatic Recording Instrument	3.1.1.5	G												
			Pressure Differential Log	3.1.1.6	G												
			SD-06 Test Reports														
			Sampling and Analysis	1.3.3	G S												
			Environmental Assessment Data Report	1.5.2.3	G S												
			Sampling Results	1.5.2.3	G S												
			Pressure Differential Recordings For Local Exhaust System	1.5.3	G												
			SD-07 Certificates														
			Testing Laboratory	1.5.1.3	G												
			SD-11 Closeout Submittals														
			Hazardous Waste Manifest	3.5.2.1	G S												

# SUBMITTAL REGISTER

CONTRACT NO.  
DB

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Combat Rescue Helicopter (CRH) Simulator Facility ADAL																	
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		02 83 00	Turn-In Documents or Weight Tickets	3.5.2.1	G S												
		03 30 00	SD-01 Preconstruction Submittals														
			Concrete Curing Plan	1.6.3.1													
			Quality Control Plan	1.6.5	G												
			Quality Control Personnel	1.6.6	G												
			Certifications														
			Quality Control Organizational Chart	1.6.6													
			Laboratory Accreditation	1.6.8	G												
			Maturity Method Data	3.3.9													
			SD-02 Shop Drawings														
			Reinforcing Steel	1.6.2.1	G												
			SD-03 Product Data														
			Joint Sealants	2.4.5	S												
			Joint Filler	2.4.4	S												
			Formwork Materials	2.1													
			Recycled Aggregate Materials	2.3.3.2	S												
			Cementitious Materials	2.3.1	S												
			Vapor Retarder	2.4.6													
			Concrete Curing Materials	2.4.1													
			Reinforcement	2.6	S												
			Liquid Chemical Floor Hardeners and Sealers	2.4.3.1	S												
			Admixtures	2.3.4	S												

# SUBMITTAL REGISTER

CONTRACT NO.  
DB

TITLE AND LOCATION

Combat Rescue Helicopter (CRH) Simulator Facility ADAL

CONTRACTOR

ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH	GOVT CLASS SIF CATION REVIEW OR E N R	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION		DATE FWD TO APPR AUTH/  DATE RCD FROM CONTR	APPROVING AUTHORITY				MAILED TO CONTR/  DATE RCD FRM APPR AUTH	REMARKS
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		03 30 00	Mechanical Reinforcing Bar Connectors	2.6.2													
			Waterstops	2.2.2													
			Local/Regional Materials	1.8.1	S												
			Biodegradable Form Release Agent	2.2.3	S												
			Pumping Concrete	1.6.3.2													
			Finishing Plan	1.6.3.3													
			Nonshrink Grout	2.4.2													
			SD-05 Design Data														
			Concrete Mix Design	1.6.1.1	G												
			SD-06 Test Reports														
			Concrete Mix Design	1.6.1.1	G S												
			Fly Ash	1.6.4.1													
			Pozzolan	1.6.4.1													
			Slag Cement	1.6.4.2													
			Aggregates	1.6.4.3													
			Tolerance Report	3.10.2.1													
			Compressive Strength Tests	3.14.2.3	G												
			Unit Weight of Structural Concrete	3.14.2.5													
			Chloride Ion Concentration	3.14.2.6													
			Air Content	3.14.2.4													
			Slump Tests	3.14.2.1													
			Water	2.3.2													
			SD-07 Certificates														

# SUBMITTAL REGISTER

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		03 30 00	Reinforcing Bars	2.6.1													
			Welder Qualifications	1.9													
			VOC Content for Form Release	1.6.3.4	S												
			Agents, Curing Compounds, and														
			Concrete Penetrating Sealers														
			Safety Data Sheets	1.6.3.5	S												
			Forest Stewardship Council	1.8.2	S												
			(FSC) Certification														
			Field Testing Technician and	1.6.6.2													
			Testing Agency														
			SD-08 Manufacturer's Instructions														
			Liquid Chemical Floor Hardeners	2.4.3.1	S												
			and Sealers														
			Joint Sealants	2.4.5	S												
			Curing Compound	2.4.1													
		04 20 00	SD-02 Shop Drawings														
			Cut CMU	3.3.3.1	G												
			Detail Drawings	3.4.1.1	G												
			SD-03 Product Data														
			Hot Weather Procedures	1.5.1	G												
			Cold Weather Procedures	1.5.2	G												
			Cement	2.2.2.1.1	G												
			Cementitious Materials	2.4.1.1	G												
			Insulation	2.6.8	G												
			SD-04 Samples														
			Mock-Up Panel	1.3.1.1	G												

# SUBMITTAL REGISTER

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DB

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		04 20 00	Concrete Masonry Units (CMU)	2.2.2.1	G S												
			Admixtures for Masonry Mortar	2.4.1.3	G S												
			Anchors, Ties, and Bar	2.6.2	G												
			Positioners														
			Joint Reinforcement	2.6.3	G												
			Insulation	2.6.8	G												
			SD-05 Design Data														
			Masonry Compressive Strength	2.1.2	G												
			Fire-Rated Concrete Masonry	2.2.2.3													
			Units														
			Bracing Calculations	3.2.5	G												
			SD-06 Test Reports														
			Fire-Rated Concrete Masonry	2.2.2.3													
			Units														
			Field Testing of Mortar	3.6.1.1													
			Field Testing of Grout	3.6.1.2													
			Prism Tests	3.6.1.3													
			Single-Wythe Masonry Wall	3.6.1.4													
			Water Penetration Test														
			SD-07 Certificates														
			Special Masonry Inspector	1.3.2													
			Qualifications														
			Concrete Masonry Units (CMU)	2.2.2.1													
			Precast Concrete Units	2.2.3													
			Cementitious Materials	2.4.1.1													
			Admixtures for Masonry Mortar	2.4.1.3													



# SUBMITTAL REGISTER

CONTRACT NO.  
DB

TITLE AND LOCATION

Combat Rescue Helicopter (CRH) Simulator Facility ADAL

CONTRACTOR

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		04 20 00	Admixtures for Grout	2.4.2.2	S												
			Anchors, Ties, and Bar	2.6.2													
			Positioners														
			Joint Reinforcement	2.6.3													
			Insulation	2.6.8													
			SD-08 Manufacturer's Instructions														
			Admixtures for Masonry Mortar	2.4.1.3	S												
			Admixtures for Grout	2.4.2.2	S												
			SD-10 Operation and Maintenance														
			Data														
			Take-Back Program	3.8													
			SD-11 Closeout Submittals														
			Recycled Content	2.2.2.1.2	S												
		05 05 23.16	SD-01 Preconstruction Submittals														
			Welding Quality Assurance Plan	3.2	G												
			SD-03 Product Data														
			Welding Procedure Qualifications	1.3	G												
			Welder, Welding Operator, and	1.3.4													
			Tacker Qualification														
			Previous Qualifications	1.3.2													
			Pre-Qualified Procedures	1.3.3	G												
			Welding Electrodes and Rods	2.2													
			SD-06 Test Reports														
			Nondestructive Testing	3.3													
			Weld Inspection Log	3.2													
			SD-07 Certificates														

# SUBMITTAL REGISTER

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		05 05 23.16	Certified Welding Procedure Specifications (WPS)	1.3.1													
			Certified Brazing Procedure Specifications (BPS)	1.3.1													
			Certified Procedure Qualification Records (PQR)	1.3.1													
			Certified Welder Performance Qualifications (WPQ)	1.3.1													
			Certified Brazer Performance Qualifications (BPQ)	1.3.1													
			Certified Welding Inspector	1.3.5													
			Nondestructive Testing Personnel	1.3.5													
		05 12 00	SD-01 Preconstruction Submittals														
			Erection and Erection Bracing Drawings	1.4.1.1	G												
			SD-02 Shop Drawings														
			Fabrication Drawings	1.4.2	G												
			SD-03 Product Data														
			Shop Primer	2.6.2													
			Welding Electrodes and Rods	2.4.1													
			Direct Tension Indicator Washers	2.3.2.3													
			Non-Shrink Grout	2.4.2													
			Tension Control Bolts	2.3.3													
			Recycled Content for Structural Steel	2.2.1	S												

SUBMITTAL REGISTER

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		05 12 00	Recycled Content for Structural Steel Tubing	2.2.2	S												
			Recycled Content for Steel Pipe	2.2.3	S												
			SD-05 Design Data														
			Shoring and Temporary Bracing	1.4.2	G												
			SD-06 Test Reports														
			Class B Coating	2.6.2													
			Bolts, Nuts, and Washers	2.3													
			Weld Inspection Reports	3.7.1.2													
			Direct Tension Indicator Washer Inspection Reports	3.7.2.1													
			Bolt Testing Reports	3.7.3.1													
			Embrittlement Test Reports	3.7.4													
			SD-07 Certificates														
			Steel	2.2													
			Bolts, Nuts, and Washers	2.3													
			Galvanizing	2.5													
			AISC Structural Steel Fabricator Quality Certification	1.3													
			AISC Structural Steel Erector Quality Certification	1.3													
			Welding Procedures and Qualifications	1.4.3.1													
			Welding Electrodes and Rods	2.4.1													
			Certified Welding Inspector	3.7.1.1													
			NDT Technician	3.7.1.2													

# SUBMITTAL REGISTER

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		05 12 00	Welding Procedure Specifications (WPS)	3.4													
			Overhead, Top Running Crane Rail Beam	1.4.3.2													
		05 21 00	SD-01 Preconstruction Submittals														
			Welder Qualification	1.3.2													
			SD-02 Shop Drawings														
			Steel Joist Framing	1.3.1	G												
			SD-03 Product Data														
			Recycled Content Of Steel Products	2.3	S												
			SD-05 Design Data														
			Design Calculations	2.2	G												
			SD-06 Test Reports														
			Erection Inspection	3.4													
			Welding Inspections	3.4													
			SD-07 Certificates														
			Certification of Compliance	1.3.2													
		05 30 00	SD-02 Shop Drawings														
			Fabrication Drawings	1.3.5	G												
			SD-03 Product Data														
			Accessories	2.2													
			Deck Units	2.1													
			Galvanizing Repair Paint	2.1.4													
			Mechanical Fasteners	2.2.17													
			Touch-Up Paint	2.1.4													

# SUBMITTAL REGISTER

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		05 30 00	Welding Equipment	1.3.3													
			Welding Rods and Accessories	1.3.3													
			Recycled Content of Steel	2.1	S												
			Products														
			SD-04 Samples														
			Metal Roof Deck Units	2.1.1													
			Flexible Closure Strips	2.2.4													
			SD-05 Design Data														
			Deck Units	2.1	G												
			SD-07 Certificates														
			Powder-Actuated Tool Operator	1.3.2													
			Welder Qualifications	1.3.3													
			Welding Procedures	1.3.3													
			Fire Safety	1.3.4.1													
			Wind Storm Resistance	1.3.4.2													
			Manufacturer's Certificate	1.3.1													
			Stud Manufacture's Certification	2.2.12													
			Stud Manufacture's Test Reports	2.2.12													
		05 40 00	SD-02 Shop Drawings														
			Framing Components	1.6.1	G												
			SD-03 Product Data														
			Studs, Joists	2.1													
			Recycled Content of Steel	2.1	S												
			Products														
			SD-05 Design Data														
			Metal Framing Calculations	1.6.2	G												

# SUBMITTAL REGISTER

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		05 40 00	SD-07 Certificates														
			Load-Bearing Cold-Formed Metal Framing	1.4													
			Welds	3.1.1													
		05 50 13	SD-02 Shop Drawings														
			Cover Plates and Frames	2.3	G												
			Expansion Joint Covers	2.4	G												
			Bollards/Pipe Guards	2.5	G												
			Angles and Plates	2.7	G												
			SD-03 Product Data														
			Cover Plates and Frames	2.3	G												
			Expansion Joint Covers	2.4	G												
			Downspout Terminations	2.6	G												
			SD-04 Samples														
			Expansion Joint Covers	2.4													
			Certified Mill	2.1	G												
		05 51 33	SD-02 Shop Drawings														
			Ladders	2.3													
			SD-03 Product Data														
			Ladders	2.3													
			Ladder Safety Devices	2.3.1													
			SD-07 Certificates														
			Fabricator Certification for Ladder Assembly	1.3													
		05 52 00	SD-02 Shop Drawings														
			Fabrication Drawings	1.2.1	G												

# SUBMITTAL REGISTER

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		05 52 00	Iron and Steel Hardware	3.2	G												
			Steel Shapes, Plates, Bars and Strips	3.2	G												
			SD-03 Product Data														
			Structural-Steel Plates, Shapes, and Bars	2.2.1	G												
			Structural-Steel Tubing	2.2.2	G												
			Cold-Drawn Steel Tubing	2.2.3	G												
			Concrete Inserts	2.2.5	G												
			Masonry Anchorage Devices	2.2.6	G												
			Protective Coating	2.1.2	G												
			Steel Railings and Handrails	2.2.8	G												
			Anchorage and Fastening Systems	1.2.1	G												
			SD-08 Manufacturer's Instructions														
			Installation Instructions	3.2													
		05 72 00	SD-01 Preconstruction Submittals														
			Existing Conditions	1.3.4	G												
			SD-02 Shop Drawings														
			Ornamental Metal Items	2.2	G												
			Installation Drawings	3.1	G												
			Shop and Field Connections	3.1	G												
			Construction Details	3.1	G												
			SD-03 Product Data														
			Materials	2.1	G												
			Ornamental Metal Items	2.2	G												

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		05 72 00	Aluminum-Alloy Extrusions	2.2.2													
			Aluminum-Alloy Sheets And Plates	2.2.3													
			Aluminum-Alloy Castings	2.2.4													
			Aluminum-Alloy Forgings	2.2.5													
			SD-04 Samples														
			Manufacturer's Standard Color Charts	1.3.2	G												
			Shop Paint	1.3.2	G												
			Finish Paint	1.3.2	G												
			Aluminum Finishes	1.3.1	G												
			Aluminum Finishes	2.2.9	G												
			Anchorage Devices and Fasteners	1.3.1	G												
			SD-06 Test Reports														
			Welding Tests	1.3.3	G												
			SD-07 Certificates														
			Welding Procedures	1.3.3													
			Ornamental Metal Items	2.2	G												
			Welder Qualifications	1.3.3													
			SD-08 Manufacturer's Instructions														
			Cleaning Materials	3.3	S												
			Preventative Maintenance and Inspection	3.3													
			Maintenance Instructions	3.4													
			Application Methods	3.3													



# SUBMITTAL REGISTER

CONTRACT NO.  
DB

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Combat Rescue Helicopter (CRH) Simulator Facility ADAL																	
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		06 10 00	SD-06 Test Reports														
			Preservative-treated	1.4.3													
			SD-07 Certificates														
			Certificates of Grade	1.8.1													
			Preservative Treatment	1.7													
		06 41 16.00 10	SD-02 Shop Drawings														
			Shop Drawings	1.5.2													
			Shop Drawings	2.11													
			Installation	3.1													
			SD-03 Product Data														
			Wood Materials	2.1													
			Wood Finishes	2.9													
			Finish Schedule	2.11.8.3													
			Certification	1.5.3													
			SD-04 Samples														
			Plastic Laminates	2.3	G												
			Cabinet Hardware	2.6	G												
			SD-07 Certificates														
			Quality Assurance	1.5	S												
			Laminate Clad Casework	2.9	S												
			Laminate Clad Casework	3.1	S												
		06 61 16	SD-02 Shop Drawings														
			Detail Drawings	1.5.2													
			Installation	3.1													
			SD-03 Product Data														
			Solid Polymer Material	2.1													

# SUBMITTAL REGISTER

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DB

TITLE AND LOCATION

Combat Rescue Helicopter (CRH) Simulator Facility ADAL

CONTRACTOR

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		06 61 16	Qualifications	1.5.1													
			Fabrications	2.3													
			Indoor air quality for solid surface seam and sealant products	2.2.4	S												
			SD-04 Samples														
			Material	2.1	G												
			Counter and Vanity Tops	2.3.5	G												
			SD-06 Test Reports														
			Solid Polymer Material	2.1													
			SD-07 Certificates														
			Fabrications	2.3													
			Qualifications	1.5.1													
			Indoor Air Quality for solid surface fabrication products	2.1	S												
			SD-10 Operation and Maintenance Data														
			Clean-up	3.2													
		07 05 23	SD-01 Preconstruction Submittals														
			Work Plan	1.4	G												
			SD-03 Product Data														
			Thermal Imaging Camera	2.2	G												
			SD-07 Certificates														
			Pressure Test Agency	1.6.2.1													
			Thermographer Qualifications	1.6.2.2													
			Test Instruments	1.6.3													
			Date Of Last Calibration	1.6.3													

# SUBMITTAL REGISTER

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		07 05 23	SD-06 Test Reports														
			Pressure Test Procedures	3.5	G S												
			Air Leakage Test Report	1.6.4	G S												
			Air Leakage Test Report	3.5.7	G S												
			Diagnostic Test Report	1.6.4	G S												
			Diagnostic Test Report	3.6.5	G S												
		07 14 00	SD-03 Product Data														
			Fluid-Applied Membrane	2.1													
			Membrane Primer	2.2													
			Elastomeric Sheet	2.8													
			Flexible Foam-Backed	2.10													
			Elastomeric Sheet														
			Solvent	3.3													
			Moisture Meter	3.4.1													
			Protection Board	2.11													
			Bond Breaker	2.7													
			SD-11 Closeout Submittals														
			Warranty	1.6													
			Information Card	3.6													
			Instructions To Government	3.5													
			Personnel														
		07 21 13	SD-03 Product Data														
			Manufacturer's Standard Details	1.3	G												
			Board Insulation	2.1	G												
			Pressure Sensitive Tape	2.2	G												
			Protection Board or Coatings	1.4	G												

# SUBMITTAL REGISTER

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DB

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Combat Rescue Helicopter (CRH) Simulator Facility ADAL

CONTRACTOR

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		07 21 13	Accessories	2.3	G												
			SD-07 Certificates														
			Board Insulation	2.1	G												
			Special Warranties	1.7	G												
			Special Warranties	1.7	G												
			SD-08 Manufacturer's Instructions														
			Board Insulation	2.1													
			Adhesive	2.3.1													
		07 21 16	SD-03 Product Data														
			Insulation	2.1													
			Insulation	3.2.1													
			Accessories	2.4													
			SD-07 Certificates														
			Indoor Air Quality for Adhesives	2.4.1	G S												
			SD-08 Manufacturer's Instructions														
			Insulation	2.1													
			Insulation	3.2.1													
		07 22 00	SD-02 Shop Drawings														
			Insulation Board Layout	1.3	G												
			Verification of Existing Conditions	1.3	G												
			SD-03 Product Data														
			Insulation	2.1	G												
			Cover Board	1.4	G												
			Fasteners	2.3	G												
			SD-06 Test Reports														
			Flame Spread Rating	1.8.1	G												

# SUBMITTAL REGISTER

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		07 22 00	SD-07 Certificates														
			Installer Qualifications	1.6	G												
			Certificates Of Compliance For Felt Materials	1.6	G												
			Indoor Air Quality For Insulation	2.1.2	G S												
			SD-08 Manufacturer's Instructions														
			Fasteners	2.3	G												
			Insulation	2.1	G												
		07 27 10.00 10	SD-02 Shop Drawings														
			Air Barrier System Shop Drawings	2.1	G S												
			SD-03 Product Data														
			Air Barrier System Product Data	2.1	G S												
			SD-04 Samples														
			Mock-Up	3.1.2	G												
			Material Samples For Air Barrier System	2.1	G												
			SD-07 Certificates														
			Air Barrier Inspector	1.7	G S												
		07 27 19.01	SD-01 Preconstruction Submittals														
			Qualifications of Manufacturer	1.8.1	G												
			Qualifications of Installer	1.8.2	G												
			SD-02 Shop Drawings														
			Self-adhering Air Barrier	1.4	G S												
			SD-03 Product Data														
			Self-adhering Air Barrier	1.4	G S												

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		07 27 19.01	Primers, Adhesives, and Mastics	2.2	G												
			Safety Data Sheets	1.4.2	G S												
			SD-04 Samples														
			Self-adhering Air Barrier	1.4	G S												
			SD-06 Test Reports														
			Field Peel Adhesion Test	1.6	G												
			Flame Propagation of Wall Assemblies	1.4.4	G												
			Flame Spread and Smoke Developed Index Ratings	1.4.4	G												
			Site Inspections and Testing	3.4.1	G												
			SD-07 Certificates														
			Self-adhering Air Barrier	1.4	G S												
			Qualifications of Manufacturer	1.8.1	G S												
			Qualifications of Installer	1.8.2	G S												
			SD-08 Manufacturer's Instructions														
			Self-adhering Air Barrier	1.4	G												
			Primers, Adhesives, and Mastics	2.2	G												
		07 27 26	SD-01 Preconstruction Submittals														
			Qualifications of Manufacturer	1.9.1	G												
			Qualifications of Installer	1.9.2	G												
			SD-02 Shop Drawings														
			Fluid-Applied Membrane Air Barrier	1.4	G S												
			SD-03 Product Data														

# SUBMITTAL REGISTER

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		07 27 26	Fluid-Applied Membrane Air Barrier	1.4	G S												
			Transition Membrane	3.3.1	G S												
			Primers, Adhesives, and Mastics	2.2	G S												
			Reinforcement	2.5	G												
			Safety Data Sheets	1.4.2	G S												
			SD-04 Samples														
			Mockup	1.4.3	G												
			SD-06 Test Reports														
			Capillary Moisture Test	1.6	G S												
			Field Peel Adhesion Test	1.4.4	G S												
			Flame Propagation of Wall Assemblies	1.4.4	G												
			Flame Spread and Smoke Developed Index Ratings	1.4.4	G												
			Site Inspections	3.4.1	G												
			SD-07 Certificates														
			Fluid-Applied Membrane Air Barrier	1.4	G S												
			Transition Membrane	3.3.1	G S												
			Qualifications of Manufacturer	1.9.1	G												
			Qualifications of Installer	1.9.2	G												
			SD-08 Manufacturer's Instructions														
			Fluid-Applied Membrane Air Barrier	1.4	G S												
			Transition Membrane	3.3.1	G S												

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ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH	GOVT CLASS / FIC / REV / WORK	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION		DATE FWD TO APPR AUTH/	APPROVING AUTHORITY				MAILED TO CONTR/ DATE RCD FRM APPR AUTH	REMARKS
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		07 27 26	Primers, Adhesives, and Mastics	2.2	G												
		07 60 00	SD-02 Shop Drawings														
			Exposed Sheet Metal	2.1.1	G												
			Gutters	3.1.17	G												
			Downspouts	3.1.18	G												
			Expansion Joints	3.1.26	G												
			Gravel Stops and fascia	2.1.1	G												
			Splash Pans	3.1.22	G												
			Flashing for Roof Drains	3.1.19	G												
			Base Flashing	3.1.11	G												
			Counterflashing	3.1.12	G												
			Flashing at Roof Penetrations and Equipment Supports	3.1.27	G												
			Reglets	2.1.14	G												
			Scuppers	3.1.20	G												
			Copings	3.1.30	G												
			Drip Edges	3.1.16	G												
			Conductor Heads	3.1.21	G												
			Open Valley Flashing	3.1.23	G												
			Eave Flashing	3.1.24	G												
			SD-04 Samples														
			Finish Samples	1.4.2	G												
			SD-08 Manufacturer's Instructions														
			Instructions for Installation	1.4.3	G												
			Quality Control Plan	3.5	G												



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		07 60 00	SD-10 Operation and Maintenance Data														
			Cleaning and Maintenance	1.4.3	G												
		07 61 15.00 20	SD-02 Shop Drawings														
			Roofing Panels	2.1	G												
			SD-03 Product Data														
			Roofing Panels	2.1	G												
			Energy Star Label for Aluminum Roofing Product	2.1.1	S												
			Recycled Content of Aluminum Roofing Products	2.1.1	S												
			Attachment Clips	2.2													
			Closures	2.3.1													
			Accessories	2.3													
			Underlayment	2.4													
			Warranty	1.8	G												
			SD-04 Samples														
			Roofing Panels	2.1													
			Accessories	2.3													
			SD-05 Design Data														
			Load Calculations	1.5	G												
			SD-06 Test Reports														
			Structural Performance	1.3.2.5	G												
			Panel Finish	1.6.6	G												
			Manufacturer's Field Inspection	3.5	G												
			SD-07 Certificates														

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		07 61 15.00 20	Technical Representative	1.6.2													
			Qualification of Installer	1.6.3													
			Coil Stock	2.1.1.5	G												
			SD-08 Manufacturer's Instructions														
			Sealant	2.3.3													
			Installation	3.3	G												
			SD-11 Closeout Submittals														
			Information Card	3.7													
			Warranty	1.8													
		07 84 00	SD-02 Shop Drawings														
			Firestopping System	2.1	G												
			SD-03 Product Data														
			Firestopping Materials	2.2	G												
			SD-06 Test Reports														
			Inspection	3.3	G												
			SD-07 Certificates														
			Inspector Qualifications	1.5.2													
			Firestopping Materials	2.2													
			Installer Qualifications	1.5.1	G												
		07 92 00	SD-03 Product Data														
			Sealants	2.1	G												
			Primers	2.2	G												
			Bond Breakers	2.3	G												
			Backstops	2.4	G												
			SD-07 Certificates														

# SUBMITTAL REGISTER

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		07 92 00	Indoor Air Quality For Interior Sealants	2.1.1	G S												
		08 11 13	SD-02 Shop Drawings														
			Doors	2.1	G												
			Doors	2.1	G												
			Frames	2.4	G												
			Frames	2.4	G												
			Accessories	2.2													
			SD-03 Product Data														
			Doors	2.1	G												
			Frames	2.4	G												
			Accessories	2.2													
		08 11 16	SD-02 Shop Drawings														
			Door and Frame Assembly	1.5.1	G												
			SD-03 Product Data														
			Door and Frame Assembly	1.5.1	G												
			Recycled Content of Aluminum Material	2.2.3	S												
			SD-04 Samples														
			Finish Samples	1.5.2	G												
			SD-05 Design Data														
			Calculations	1.2.1	G												
			Air Infiltration	1.2.3	G												
			Water Penetration	1.2.4	G												
			Standard Airblast	1.2.1.1	G												

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		08 11 16	NFRC Project Label Certificates for Fenestration	1.2.5	G												
			SD-08 Manufacturer's Instructions														
			Door and Frame Assembly	1.5.1	G												
			Adjustments, Cleaning, and Maintenance	1.5.5	G												
			NFRC Project Label Certificates for Fenestration	1.2.5	G												
		08 14 00	SD-02 Shop Drawings														
			Doors	2.1	G												
			SD-03 Product Data														
			Doors	2.1	G												
			Accessories	2.2													
			Water-resistant Sealer	2.3.7													
			Warranty	1.5													
			Fire Resistance Rating	2.1.3	G												
			SD-04 Samples														
			Doors	2.1													
			SD-06 Test Reports														
			Cycle-Slam	2.4													
			Hinge Loading Resistance	2.4													
			SD-07 Certificates														
			Certificates of Grade	1.3.1													
			SD-11 Closeout Submittals														
			Warranty	1.5													
		08 31 00	SD-02 Shop Drawings														

# SUBMITTAL REGISTER

CONTRACT NO.  
DB

TITLE AND LOCATION						CONTRACTOR											
Combat Rescue Helicopter (CRH) Simulator Facility ADAL																	
ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH	GOVT CLASS / FIC ATION REVIEW	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION		DATE FWD TO APPR AUTH/	APPROVING AUTHORITY				MAILED TO CONTR/ DATE RCD FRM APPR AUTH	REMARKS
						SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION	DATE RCD FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE	DATE OF ACTION		
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
		08 31 00	Access Doors And Panels	1.3	G												
			SD-03 Product Data														
			Access Doors And Panels	1.3	G												
			Hardware	1.3.2	G												
			Accessories	2.2.8	G												
			Power Transfer Components	1.3.1	G												
			Recycled Content	2.1	S												
			SD-04 Samples														
			Finishes	2.5	G												
			SD-06 Test Reports														
			Acoustical Ratings of Assemblies	1.3.1	G												
		08 33 23	SD-02 Shop Drawings														
			Overhead Coiling Doors	2.2.1	G												
			Counterbalancing Mechanism	2.2.3	G												
			Manual Door Operators	2.2.4	G												
			Electric Door Operators	2.2.5	G												
			Bottom Bars	2.2.1.3	G												
			Guides	2.1.1.1	G												
			Overhead Drum	2.2.1.8	G												
			Hood	3.3.2	G												
			Installation Drawings	2.1.1.1	G												
			SD-03 Product Data														
			Overhead Coiling Doors	2.2.1	G												
			Hardware	2.2.2	G												
			Counterbalancing Mechanism	2.2.3	G												
			Manual Door Operators	2.2.4	G												

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		08 33 23	Electric Door Operators	2.2.5	G												
			SD-05 Design Data														
			Overhead Coiling Doors	2.2.1	G												
			Hardware	2.2.2	G												
			Counterbalancing Mechanism	2.2.3	G												
			Manual Door Operators	2.2.4	G												
			Electric Door Operators	2.2.5	G												
			SD-10 Operation and Maintenance														
			Data														
			Operation and Maintenance	3.3.2	G												
			Manuals														
			Materials	3.3.2	G												
			Devices	3.3.2	G												
			Procedures	3.3.2	G												
			Manufacture's Brochures	3.3.2	G												
			Parts Lists	3.3.2	G												
			SD-11 Closeout Submittals														
			Warranty	3.3.1	G												
		08 34 01	SD-02 Shop Drawings														
			Installation	3.5	G												
			SD-03 Product Data														
			Forced Entry Resistant	1.3													
			Components														
			Installation	3.5													
			Components	1.4													
			SD-07 Certificates														

# SUBMITTAL REGISTER

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		08 34 01	Forced Entry Resistant Components	1.3	G												
		08 34 73	SD-02 Shop Drawings														
			Hollow Metal Sound Retardant Doors	2.1	G												
			Wood Sound Retardant Doors	2.1	G												
			Door Frames	2.1	G												
			SD-03 Product Data														
			Hollow Metal Sound Retardant Doors	2.1	G												
			Wood Sound Retardant Doors	2.1	G												
			Door Frames	2.1	G												
			Door Hardware	2.1	G												
			Thresholds	2.1													
			SD-06 Test Reports														
			Acoustical Tests	2.4.2													
			SD-07 Certificates														
			Hollow Metal Sound Retardant Doors	2.1	G												
			Wood Sound Retardant Doors	2.1	G												
			Door Frames	2.1													
			Door Hardware	2.1													
			Thresholds	2.1													
		08 41 13	SD-01 Preconstruction Submittals														
			Sample Warranty	3.6	G												
			SD-02 Shop Drawings														

# SUBMITTAL REGISTER

CONTRACT NO.  
DB

TITLE AND LOCATION

Combat Rescue Helicopter (CRH) Simulator Facility ADAL

CONTRACTOR

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		08 41 13	Installation Drawings	3.3	G												
			Fabrication Drawings	2.2	G												
			SD-03 Product Data														
			Finish	2.2.3	G												
			Recycled Content of Aluminum	2.1.1.2	S												
			Material														
			SD-06 Test Reports														
			Deflection	3.4.3	S												
			Air Infiltration	3.4.1	S												
			Condensation Resistance and	3.4.4	S												
			Thermal Transmittance														
			SD-08 Manufacturer's Instructions														
			Manufacturer's Instructions	3.3													
			SD-11 Closeout Submittals														
			Manufacturer's Product Warranty	3.6													
		08 71 00	SD-02 Shop Drawings														
			Manufacturer's Detail Drawings	1.3	G												
			Verification of Existing Conditions	1.3	G												
			Hardware Schedule	1.5	G												
			Keying System	2.3.8	G												
			SD-03 Product Data														
			Hardware Items	2.3	G												
			SD-08 Manufacturer's Instructions														
			Installation	3.1													
			SD-10 Operation and Maintenance														
			Data														



# SUBMITTAL REGISTER

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DB

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Combat Rescue Helicopter (CRH) Simulator Facility ADAL																	
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		08 71 00	Hardware Schedule	1.5	G												
			SD-11 Closeout Submittals														
			Key Bitting	1.6.1													
		08 81 00	SD-02 Shop Drawings														
			Installation	1.5	G												
			SD-03 Product Data														
			Tempered Glass	2.1.2													
			Glazing Accessories	1.3													
			Sealants	2.2.1.1													
			Joint Backer	2.2.2													
			SD-04 Samples														
			Tempered Glass	2.1.2													
			Glazing Compound	3.1													
			Tape	2.2.4													
			Sealing Tapes	2.2.4													
			SD-07 Certificates														
			Tempered Glass	2.1.2													
			SD-08 Manufacturer's Instructions														
			Setting and Sealing Materials	2.2													
			Glass Setting	3.2													
		08 91 00	SD-02 Shop Drawings														
			Wall louvers	1.4													
			Wall louvers	1.5													
			SD-03 Product Data														
			Metal Wall Louvers	2.2													
			SD-04 Samples														

# SUBMITTAL REGISTER

CONTRACT NO.  
DB

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		08 91 00	Wall louvers	1.4	G												
			Wall louvers	1.5	G												
		09 22 00	SD-02 Shop Drawings														
			Metal Support Systems	2.1	G												
			SD-03 Product Data														
			Metal Support Systems	2.1													
		09 24 23	SD-02 Shop Drawings														
			Lath	3.4													
			SD-03 Product Data														
			Proportions and Mixing	3.7													
			SD-04 Samples														
			Colored Stucco Finish Coat	2.2													
			Sample Panel	1.3	G												
		09 29 00	SD-03 Product Data														
			Glass Mat Water-Resistant	2.1.3													
			Gypsum Tile Backing Board														
			Type X Moisture and Mold	2.1.2													
			Resistant Gypsum														
			Glass Mat Covered or Reinforced	2.1.4													
			Gypsum Sheathing														
			Glass Mat Covered or Reinforced	2.1.4.1													
			Gypsum Sheathing Sealant														
			Accessories	2.1.9													
			Gypsum Board	2.1.1													
			SD-07 Certificates														
			Asbestos Free Materials	2.1	G S												

# SUBMITTAL REGISTER

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		09 29 00	Indoor Air Quality for Gypsum Board	2.1.1	G S												
			SD-08 Manufacturer's Instructions														
			Safety Data Sheets	2.1	S												
			SD-10 Operation and Maintenance Data														
			Manufacturer Maintenance Instructions	2.1													
		09 30 10	SD-02 Shop Drawings														
			Detail Drawings	3.2													
			SD-03 Product Data														
			Porcelain Tile	2.1.1	G												
			Recycled Content for Porcelain Tile	2.1.1	S												
			Mortar, Grout, and Adhesive	2.4													
			SD-04 Samples														
			Tile	2.1	G												
			Accessories	2.1													
			Transition Strips	2.1	G												
			Transition Strips	2.6	G												
			Grout	2.4.3	G												
			SD-07 Certificates														
			Indoor Air Quality for Adhesives	2.4	S												
			Indoor Air Quality for Sealants	2.4.7	S												
			SD-08 Manufacturer's Instructions														
			Maintenance Instructions	3.7													

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		09 30 10	SD-10 Operation and Maintenance Data														
			Installation	3.2	G												
		09 51 00	SD-02 Shop Drawings														
			Approved Detail Drawings	2.1													
			SD-03 Product Data														
			Acoustical Ceiling Systems	2.1.1													
			Recycled Content for Type III Ceiling Tiles	2.2.1.1	S												
			Recycled Content for Type III Ceiling Tiles	2.2.2.1	S												
			Recycled Content for Suspension Systems	2.3	S												
			SD-04 Samples														
			Acoustical Units	2.2	G												
			Acoustical Ceiling Tiles	2.2.1.1	G												
			SD-06 Test Reports														
			Fire Resistive Ceilings	2.1.1	G												
			Ceiling Attenuation Class and Test	2.1.2	G												
			SD-07 Certificates														
			Indoor Air Quality for Type III Ceiling Tiles	2.2.1.1	S												
			Indoor Air Quality for Type III Ceiling Tiles	2.2.2.1	S												
			Indoor Air Quality for Adhesives	2.6	S												

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		09 51 00	Indoor Air Quality for Sealants	2.9	S												
		09 54 26	SD-02 Shop Drawings														
			Approved Detail Drawings	2.1													
			SD-08 Manufacturer's Instructions														
			manufacturer's installation	3.3													
			instructions														
		09 62 38	SD-03 Product Data														
			Static-Control Resilient Flooring	2.1													
			Accessories	2.5													
			Adhesives	2.3													
			Warranty	1.9													
			SD-04 Samples														
			Static-Control Resilient Flooring	2.1	G												
			Moldings	2.4	G												
			Special Treatment Materials	1.3.1.2													
			Accessories	2.5													
			SD-06 Test Reports														
			Fire Resistance	2.8													
			Moisture, Alkalinity and Bond	3.2													
			Testing	3.7													
			SD-07 Certificates														
			Indoor Air Quality for Adhesives	2.3	S												
			Qualifications of Applicator	1.6													
			SD-08 Manufacturer's Instructions														
			Static-Control Resilient Flooring	2.1													
			Accessories	2.5													

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		09 62 38	SD-10 Operation and Maintenance Data														
			Static-Control Resilient Flooring Accessories	2.1 2.5													
		09 65 00	SD-02 Shop Drawings														
			Resilient Flooring and Accessories	2.9													
			SD-03 Product Data														
			Resilient Flooring and Accessories	2.9													
			Adhesives	2.5													
			Recycled content for Luxury Vinyl Tile	2.2	S												
			Wall Base	2.3													
			SD-04 Samples														
			Resilient Flooring and Accessories	2.9	G												
			Wall Base;	2.3	G												
			SD-06 Test Reports														
			Moisture, Alkalinity and Bond Tests	3.3													
			SD-07 Certificates														
			Indoor Air Quality for Wall Base	2.3	S												
			Indoor Air Quality for Adhesives	2.5	S												
			SD-08 Manufacturer's Instructions														
			Surface Preparation	3.2													

# SUBMITTAL REGISTER

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DB

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		09 65 00	Installation	3.1													
			SD-10 Operation and Maintenance Data														
			Resilient Flooring and Accessories	2.9													
		09 68 00	SD-02 Shop Drawings														
			Installation Drawings	3.4	G												
			SD-03 Product Data														
			Carpet	2.1	G												
			Recycled Content for Carpeting	2.1.1	S												
			Moldings	2.4	G												
			Indoor Air Quality for Concrete	2.3	S												
			Primer														
			SD-04 Samples														
			Carpet	2.1	G												
			Moldings	2.4	G												
			SD-06 Test Reports														
			Moisture and Alkalinity Tests	3.2	G												
			SD-07 Certificates														
			Indoor Air Quality for Carpet	2.1.1	S												
			Indoor Air Quality for Carpet	2.1.2	S												
			SD-08 Manufacturer's Instructions														
			Surface Preparation	3.1													
			SD-10 Operation and Maintenance Data														
			Cleaning and Protection	3.5													

# SUBMITTAL REGISTER

CONTRACT NO.  
DB

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		09 68 00	SD-11 Closeout Submittals														
			Warranty	1.6													
		09 69 13	SD-02 Shop Drawings														
			Detailed Installation Drawings	2.2.2	G												
			Fabrication Drawings	2.2.1	G												
			SD-03 Product Data														
			Access Flooring System	2.1	G												
			Recycled Content of Access	2.1.1	S												
			Flooring System														
			Indoor Air Quality For Pedestal	2.1.5	S												
			Adhesive														
			Indoor Air Quality For Adhesives	2.2.7	S												
			SD-04 Samples														
			Floor Panels	2.2													
			Floor Covering	2.2.4	G												
			Panel Support System	2.3													
			Cut Outs	2.6	G												
			SD-06 Test Reports														
			Factory Tests	2.5													
			Concentrated Load	2.1.1													
			Uniform Live Load	2.1.1													
			Rolling Load	2.1.1													
			Rolling Load	2.1.1													
			Impact Load	2.1.1													
			Ultimate Load	2.1.1													
			Stringer Load	2.1.3													



# SUBMITTAL REGISTER

CONTRACT NO.  
DB

## TITLE AND LOCATION

Combat Rescue Helicopter (CRH) Simulator Facility ADAL

## CONTRACTOR

ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH	GOVT CLASS S I F I C A T I O N A / E R E V W R	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION		DATE FWD TO APPR AUTH/  DATE RCD FROM CONTR	APPROVING AUTHORITY				MAILED TO CONTR/  DATE RCD FRM APPR AUTH	REMARKS
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		09 69 13	Pedestal Axial Load	2.1.4													
			Bonding Strength of Pedestal Adhesive	2.1.5													
			Electrical Resistance	3.2.3													
			Field Tests	3.2													
			SD-07 Certificates														
			Compliance with ICC-ES AC308	2.1													
			Compliance with ICC IBC	2.1													
			Certificate of Compliance	2.1													
			Qualification of Manufacturer	1.4.1													
			SD-10 Operation and Maintenance Data														
			Operation and Maintenance Manuals	3.4	G												
			SD-11 Closeout Submittals														
			Lifting Device	2.2.8													
			Warranty	1.6													
		09 90 00	SD-02 Shop Drawings														
			Piping Identification	3.9													
			SD-03 Product Data														
			Coating	2.1	G												
			SD-04 Samples														
			Color	1.11	G												
			SD-07 Certificates														
			Applicator's Qualifications	1.4													
			Qualification Testing	1.5.1.2	G												

# SUBMITTAL REGISTER

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Combat Rescue Helicopter (CRH) Simulator Facility ADAL																	
ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH	GOVT CLASS / FIC / REVIEW / WORK	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION		DATE FWD TO APPR AUTH/	APPROVING AUTHORITY				MAILED TO CONTR/ DATE RCD FRM APPR AUTH	REMARKS
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		09 90 00	Indoor Air Quality for Paints and Primers	2.1	S												
			SD-08 Manufacturer's Instructions														
			Mixing	3.5.2													
			Manufacturer's Safety Data	1.8.2	S												
			Sheets														
			SD-10 Operation and Maintenance														
			Data														
			Coatings	2.1	G												
		10 11 00	SD-03 Product Data														
			Visual Display Board	1.2													
			SD-04 Samples														
			Aluminum	2.1.2	G												
			Materials	2.1	G												
			SD-07 Certificates														
			Indoor air quality for	2.2	S												
			markerboards														
		10 14 00.10	SD-02 Shop Drawings														
			Approved Detail Drawings	3.1													
			SD-03 Product Data														
			Modular Exterior Signage System	2.1													
			Installation	3.1													
			Exterior Signage	1.2													
			Wind Load Requirements	1.2.1													
			SD-04 Samples														
			Exterior Signage	1.2	G												

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(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
		10 14 00.10	SD-10 Operation and Maintenance Data														
			Protection and Cleaning	3.1.2													
		10 14 00.20	SD-02 Shop Drawings														
			Detail Drawings	1.4.2													
			SD-03 Product Data														
			Installation	3.1													
			Warranty	1.6													
			SD-04 Samples														
			Interior Signage	1.4.1	G												
			Software	1.3	G												
			SD-10 Operation and Maintenance Data														
			Approved Manufacturer's Instructions	3.1	G												
			Protection and Cleaning	3.1.2	G												
		10 21 13	SD-02 Shop Drawings														
			Fabrication Drawings	2.1													
			Installation Drawings	3.2	G												
			SD-03 Product Data														
			Cleaning and Maintenance Instructions	2.1													
			Colors And Finishes	2.7													
			Anchoring Devices and Fasteners	2.2.1													
			Hardware and Fittings	2.2.3													
			Brackets	2.2.2													

# SUBMITTAL REGISTER

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		10 21 13	Door Hardware	2.2.4														
			Toilet Enclosures	2.3.1														
			Urinal Screens	2.3.2														
			Pilaster Shoes	2.5														
			Finishes	2.2.3.2	G													
			SD-04 Samples															
			Colors and Finishes	2.7	G													
			Hardware and Fittings	2.2.3														
			Anchoring Devices and Fasteners	2.2.1														
			SD-07 Certificates															
			Warranty	1.6														
			SD-10 Operation and Maintenance															
			Data															
			Plastic Identification	2.1.1	G													
		10 22 39	SD-01 Preconstruction Submittals															
			Manufacturer's Qualifications	2.1	G													
			Manufacturer's Sample Warranty	2.1														
			Statement of Code Compliance	2.1	G													
			Statement of Standards	2.1	G													
			Conformity															
			Verification of Field	2.1	G													
			Measurements															
			SD-02 Shop Drawings															
			Installation	3.1	G													
			Layouts	3.1.1	G													
			Fabrication Drawings	2.1	G													

# SUBMITTAL REGISTER

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		10 22 39	SD-03 Product Data														
			Folding Panel Partitions	2.3	G												
			Installation Instructions	2.1	G												
			SD-04 Samples														
			Folding Panel Partitions	2.3	G												
			SD-06 Test Reports														
			Acoustical Test	3.2.3	G												
			Flame and Smoke Development Tests	2.1.1.1	G												
			SD-07 Certificates														
			Materials	2.2													
			Folding Panel Partitions	2.3													
			SD-10 Operation and Maintenance Data														
			Folding Panel Partitions	2.3													
		10 26 00	SD-02 Shop Drawings														
			Corner Guards	2.2													
			Wall Guards (Bumper Guards)	2.3													
			Wall Panels	2.4													
			SD-03 Product Data														
			Corner Guards	2.2													
			Wall Guards (Bumper Guards)	2.3													
			Recycled content for aluminum component of corner guards	2.2.1	S												

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		10 26 00	Recycled content for aluminum component of wall guards, Combination Handrail/Wall guard and handrails	2.3.1	S												
			SD-04 Samples														
			Finish	2.6	G												
			SD-06 Test Reports														
			Corner Guards	2.2													
			Wall Guards (Bumper Guards)	2.3													
			SD-07 Certificates														
			Corner Guards	2.2													
			Wall Guards (Bumper Guards)	2.3													
			Indoor air quality for wall covering/panels	2.4	S												
			Indoor air quality for adhesives	2.7	S												
		10 28 13	SD-03 Product Data														
			Finishes	2.1.2	G												
			Accessory Items	2.2	G												
			SD-04 Samples														
			Finishes	2.1.2	G												
			Accessory Items	2.2													
			SD-07 Certificates														
			Accessory Items	2.2													
		10 56 13	SD-01 Preconstruction Submittals														
			Shelving Units	2.1													
			SD-03 Product Data														

# SUBMITTAL REGISTER

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		10 56 13	Shelving Units	2.1													
			Accessories	2.2													
			Installation instructions	3.2													
			SD-04 Samples														
			Finish	2.3													
			SD-06 Test Reports														
			Shelving Units	2.1													
			Finish	2.3													
		12 24 13	SD-02 Shop Drawings														
			Installation	3.3													
			SD-03 Product Data														
			Window Shades	2.1													
			Recycled Content for various fiber components	2.1	S												
			SD-04 Samples														
			Window Shades	2.1	G												
			SD-06 Test Reports														
			Window Shades	2.1													
			SD-07 Certificates														
			Indoor Air Quality for roller window shades	2.1	S												
			SD-08 Manufacturer's Instructions														
			Window Shades	2.1													
			SD-10 Operation and Maintenance Data														
			Window Shades	2.1													

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		12 24 13	SD-11 Closeout Submittals														
			Warranty	1.7	G												
		12 48 13	SD-02 Shop Drawings														
			Installation Drawings	3.2													
			Detail Drawings	3.2													
			SD-03 Product Data														
			Entrance Floor Mats and Frames	2.1.1													
			Adhesives and Concrete Primers	2.1.2													
			SD-04 Samples														
			Entrance Floor Mats and Frames	2.1.1	G												
			SD-08 Manufacturer's Instructions														
			Manufacturer's Instructions	3.2													
			SD-10 Operation and Maintenance														
			Data														
			Protection, Maintenance, and	3.2													
			Repair Information														
		21 13 13.00 10	SD-02 Shop Drawings														
			Shop Drawings	1.4.3	G												
			As-Built Drawings	3.9													
			SD-03 Product Data														
			Fire Protection Related	1.4.1													
			Submittals														
			Materials and Equipment	2.3	G												
			Spare Parts	1.6													
			Preliminary Tests	3.8	G												
			Final Acceptance Test	3.9	G												



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		21 13 13.00 10	Onsite Training	3.10	G												
			Qualified Fire Protection Engineer	1.4.1	G												
			Sprinkler System Installer	1.4.2	G												
			SD-05 Design Data														
			Sway Bracing	1.4.3	G												
			Hydraulic Calculations	1.2.1.3	G												
			SD-06 Test Reports														
			Preliminary Test Report	3.8	G												
			Final Acceptance Test Report	3.9	G												
			SD-07 Certificates														
			Inspection by Fire Protection Engineer	3.3													
			SD-10 Operation and Maintenance Data														
			Operating and Maintenance Manuals	3.10	G												
		21 22 00.00 40	SD-01 Preconstruction Submittals														
			Previous Product Installation	1.3.2	G												
			SD-02 Shop Drawings														
			High-Pressure Cylinders	2.1.4	G												
			Piping Materials	2.3.1	G												
			Pipe Hangers and Supports	2.3.1.1	G												
			Pressure Alarm Switch	2.3.3.1	G												
			Nozzle	2.1.2	G												
			Manual Actuation Stations	2.3.5	G												
			Installation Drawings	2.1.1	G												

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		21 22 00.00 40	SD-03 Product Data														
			Escutcheons	2.3.2	G												
			Storage Batteries	2.3.4.1.1	G												
			Battery Charger	2.3.4.1.2	G												
			Smoke Detectors	2.3.6	G												
			Audible Alarms	2.3.12.1	G												
			Visual Alarms	2.3.12.2	G												
			Annunciator Panels	2.3.13.1	G												
			Pressure-Relief Device	3.1	G												
			SD-05 Design Data														
			Design Analysis	2.1.2	G												
			Discharge Calculations	2.1.2	G												
			SD-06 Test Reports														
			Test Procedure	3.2.2	G												
			Preliminary Tests	3.2.3	G												
			Formal Tests	3.2.4	G												
			SD-07 Certificates														
			Certificates of Compliance	2.1													
			SD-10 Operation and Maintenance Data														
			Operating Instructions	3.1.4	G												
			Operation and Maintenance Manuals	3.1.4													
			SD-11 Closeout Submittals														
			Record Drawings	3.3.1													
		22 00 00	SD-02 Shop Drawings														

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		22 00 00	Plumbing System	3.10.1	G												
			SD-03 Product Data														
			Hot Water Recirculation System	2.3.4	G												
			Balancing Valves														
			Flush Valve Water Closets	2.4.3													
			WaterSense Label for Flush	2.4.3	S												
			Valve Water Closet														
			Flush Valve Urinals	2.4.4													
			WaterSense Label for Urinal	2.4.4	S												
			Flush Tank Water Closets	2.4.6													
			WaterSense Label for Flush Tank	2.4.6	S												
			Water Closet														
			Wall Hung Lavatories	2.4.7													
			Undermount Lavatories	2.4.8													
			WaterSense Label for Lavatory	2.4.1	S												
			Faucet														
			Wellness Room and Breakroom	2.4.9													
			Sinks														
			Drinking-Water Coolers	2.4.10	G												
			Terrazzo Mop Sinks	2.4.11													
			Energy Star Label for Electric	2.4.10	S												
			Water Cooler														
			Water Heaters	2.8	G												
			Backflow Prevention Assemblies	3.10.1.1	G												
			Welding	1.5.1													
			Plumbing System	3.10.1													

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		22 00 00	SD-06 Test Reports														
			Tests, Flushing and Disinfection	3.10													
			Test of Backflow Prevention	3.10.1.1	G												
			Assemblies														
			SD-10 Operation and Maintenance														
			Data														
			Plumbing System	3.10.1	G												
		22 31 00	SD-02 Shop Drawings														
			Installation	3.2													
			SD-03 Product Data														
			Softening Equipment	2.2													
			Spare Parts	1.4													
			Field Instructions	3.3.2													
			SD-06 Test Reports														
			Softening Equipment	2.2													
			Piping	3.4.2													
			SD-10 Operation and Maintenance														
			Data														
			Operating and Maintenance	3.3.2	G												
			Instructions														
		23 00 00	SD-02 Shop Drawings														
			Detail Drawings	1.4.4	G												
			SD-03 Product Data														
			Metallic Flexible Duct	2.10.1.1													
			Insulated Nonmetallic Flexible	2.10.1.2													
			Duct Runouts														

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		23 00 00	Duct Connectors	2.10.1.2													
			Duct Access Doors	2.10.2	G												
			Fire Dampers	2.10.3													
			Manual Balancing Dampers	2.10.4	G												
			Automatic Smoke-Fire Dampers	2.10.6													
			Automatic Smoke Dampers	2.10.7													
			Sound Attenuation Equipment	2.10.11													
			Diffusers	2.10.12.1													
			Registers and Grilles	2.10.12.3													
			Louvers	2.10.13													
			Air Vents, Penthouses, and	2.10.14													
			Goosenecks														
			In-Line Centrifugal Fans	2.11.1.1													
			Air Handling Units	2.12	G												
			Room Fan-Coil Units	2.13.1	G												
			Variable Volume, Single Duct	2.13.2.1	G												
			Terminal Units														
			Test Procedures	1.4.5													
			Indoor Air Quality for Duct	2.10.1	S												
			Sealants														
			SD-06 Test Reports														
			Performance Tests	3.10	G												
			SD-08 Manufacturer's Instructions														
			Manufacturer's Installation	3.2													
			Instructions														

# SUBMITTAL REGISTER

CONTRACT NO.  
DB

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Combat Rescue Helicopter (CRH) Simulator Facility ADAL																	
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		23 00 00	Operation and Maintenance Training	3.12.2													
			SD-10 Operation and Maintenance Data														
			Operation and Maintenance Manuals	3.12.1	G												
			Fire Dampers	2.10.3	G												
			Manual Balancing Dampers	2.10.4	G												
			Automatic Smoke-Fire Dampers	2.10.6	G												
			Automatic Smoke Dampers	2.10.7	G												
			In-Line Centrifugal Fans	2.11.1.1	G												
			Air Handling Units	2.12	G												
			Room Fan-Coil Units	2.13.1	G												
			Variable Volume, Single Duct Terminal Units	2.13.2.1	G												
			SD-11 Closeout Submittals														
			Indoor Air Quality During Construction	3.11	S												
		23 05 15	SD-01 Preconstruction Submittals														
			Material, Equipment, and Fixture Lists	1.2	G												
			SD-02 Shop Drawings														
			Record Drawings	1.2	G												
			Connection Diagrams	1.2	G												
			Coordination Drawings	1.2	G												
			Fabrication Drawings	1.2	G												

# SUBMITTAL REGISTER

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		23 05 15	Installation Drawings	3.1	G												
			SD-03 Product Data														
			Pipe and Fittings	2.1	G												
			Piping Specialties	2.2	G												
			Valves	2.3	G												
			Miscellaneous Materials	2.4	G												
			Supporting Elements	2.5	G												
			Equipment Foundation Data	1.2	G												
			SD-04 Samples														
			Manufacturer's Standard Color Charts	1.2	G												
			SD-05 Design Data														
			Pipe and Fittings	2.1	G												
			Piping Specialties	2.2	G												
			Valves	2.3	G												
			SD-06 Test Reports														
			Hydrostatic Tests	3.1	G												
			Air Tests	3.1	G												
			Valve-Operating Tests	3.1	G												
			Drainage Tests	3.1	G												
			Pneumatic Tests	3.1	G												
			System Operation Tests	3.1	G												
			SD-07 Certificates														
			Record of Satisfactory Field Operation	1.4.2	G												

# SUBMITTAL REGISTER

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		23 05 15	List of Qualified Permanent Service Organizations	1.4.3	G												
			SD-10 Operation and Maintenance Data														
			Operation and Maintenance Manuals	3.10	G												
		23 05 48.19	SD-02 Shop Drawings														
			Coupling and Bracing	3.1													
			Flexible Couplings or Joints	3.3													
			Equipment Restraint	2.2													
			Contractor Designed Bracing	1.2.4	G												
			SD-03 Product Data														
			Coupling and Bracing	3.1	G												
			Flexible Couplings Or Joints	3.3	G												
			Equipment Restraint	2.2	G												
			Contractor Designed Bracing	1.2.4	G												
			Snubbers	2.6													
			Anchor Bolts	3.9													
			Vibration Isolators	2.2.2													
			SD-05 Design Data														
			Design Calculations	1.2.4													
			SD-06 Test Reports														
			Anchor Bolts	3.9	G												
		23 05 93	SD-01 Preconstruction Submittals														
			Records of Existing Conditions	1.3.3	G												
			Records of Existing Conditions	1.3.3	G												



# SUBMITTAL REGISTER

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		23 05 93	Independent TAB Agency and Personnel Qualifications	1.5.1	G													
			TAB Firm	1.5.1.2	G													
			TAB Team Assistants	1.2	G													
			TAB Team Engineer	1.2	G													
			TAB Specialist	1.5.1.2	G													
			TAB Team Field Leader	1.2	G													
			SD-02 Shop Drawings															
			TAB Schematic Drawings and Report Forms	1.3.3	G													
			SD-03 Product Data															
			Equipment and Performance Data	1.3	G													
			TAB Procedures	3.1	G													
			Calibration	3.1.5.4	G													
			Systems Readiness Check	1.3.3	G													
			SD-07 Certificates															
			TAB Firm	1.5.1.2	G													
		23 07 00	SD-02 Shop Drawings															
			MICA Plates	3.2.2.4	G													
			Pipe Insulation Systems	2.3														
			Pipe Insulation Systems	3.2														
			Duct Insulation Systems	3.3														
			Equipment Insulation Systems	3.4														
			Recycled content for insulation materials	2.3.1	S													

SUBMITTAL REGISTER

CONTRACT NO.  
DB

TITLE AND LOCATION						CONTRACTOR											
Combat Rescue Helicopter (CRH) Simulator Facility ADAL																	
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		23 07 00	SD-03 Product Data														
			Pipe Insulation Systems	2.3	G												
			Pipe Insulation Systems	3.2	G												
			Duct Insulation Systems	3.3	G												
			Equipment Insulation Systems	3.4	G												
			SD-04 Samples														
			Thermal Insulation	2.2.1.3	G												
			SD-07 Certificates														
			Indoor air quality for adhesives	2.2.1	S												
			SD-08 Manufacturer's Instructions														
			Pipe Insulation Systems	2.3	G												
			Pipe Insulation Systems	3.2	G												
			Duct Insulation Systems	3.3	G												
			Equipment Insulation Systems	3.4	G												
		23 09 00	SD-02 Shop Drawings														
			DDC Contractor Design Drawings	3.3	G												
			Draft As-Built Drawings	3.3	G												
			Final As-Built Drawings	3.3	G												
			SD-03 Product Data														
			Programming Software	1.8.4	G												
			Controller Application Programs	1.8.1	G												
			Controller Application Programs	1.8.5	G												
			Configuration Software	1.8.2	G												
			Controller Configuration Settings	1.8.3	G												
			Manufacturer's Product Data	2.2	G												
			Draft LNS Database	3.5.3	G												

# SUBMITTAL REGISTER

CONTRACT NO.  
DB

TITLE AND LOCATION

Combat Rescue Helicopter (CRH) Simulator Facility ADAL

CONTRACTOR

ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH	CLASSIFICATION GOVT OR A/E REVIEWER	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION		DATE FWD TO APPR AUTH/	APPROVING AUTHORITY				MAILED TO CONTR/ DATE RCD FRM APPR AUTH	REMARKS
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		23 09 00	Final LNS Database	3.6.4	G												
			SD-06 Test Reports														
			Existing Conditions Report	3.1.1													
			Start-Up Testing Report	3.5.2	G												
			PVT Procedures	3.6.1	G												
			PVT Report	3.6.3	G												
			Pre-Construction Quality Control (QC) Checklist	1.9.1	G												
			Post-Construction Quality Control (QC) Checklist	1.9.2	G												
			Control Contractor's Performance Verification Testing Plan	3.7.5	G												
			Equipment Supplier's Performance Verification Testing Plan	3.7.3.1	G												
			Endurance Testing Results	3.7.8.3	G												
			Performance Verification Test Report	3.7.9	G												
			SD-10 Operation and Maintenance Data														
			Operation and Maintenance (O&M) Instructions	3.8	G												
			Training Documentation	3.10.1	G												
			SD-11 Closeout Submittals														
			Enclosure Keys	2.5	G												
			Password Summary Report	3.2.6.1	G												

# SUBMITTAL REGISTER

CONTRACT NO.  
DB

TITLE AND LOCATION

Combat Rescue Helicopter (CRH) Simulator Facility ADAL

CONTRACTOR

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		23 09 00	Closeout Quality Control (QC) Checklist	1.9.3	G												
		23 11 25	SD-03 Product Data														
			Pipe and Fittings	1.6.1	G												
			Pressure Regulators	3.13	G												
			Valves	2.3	G												
			SD-06 Test Reports														
			Testing	3.15	G												
			Pressure Tests	3.15.1	G												
			Test with Gas	3.15.2	G												
			SD-07 Certificates														
			Welders Procedures and Qualifications	1.5.1	G												
			Assigned Number, Letter, or Symbol	1.5.1	G												
			SD-10 Operation and Maintenance Data														
			Gas Facility System and Equipment Operation	1.3.1	G												
			Gas Facility System Maintenance	1.3.2	G												
			Gas Facility Equipment Maintenance	1.3.3	G												
		23 23 00	SD-02 Shop Drawings														
			Refrigerant Piping System	2.3	G												
			SD-03 Product Data														
			Refrigerant Piping System	2.3													

# SUBMITTAL REGISTER

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DB

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		23 23 00	Spare Parts	1.5.2													
			Qualifications	1.3.1													
			Refrigerant Piping Tests	3.5													
			Verification of Dimensions	3.1													
			SD-06 Test Reports														
			Refrigerant Piping Tests	3.5													
			SD-07 Certificates														
			Service Organization	2.1													
			SD-10 Operation and Maintenance														
			Data														
			Maintenance	1.5	G												
			Operation and Maintenance	3.4	G												
			Manuals														
			Demonstrations	3.4	G												
		23 25 00	SD-03 Product Data														
			Water Analysis	2.4													
			Spare Parts	1.6													
			Field Instructions	3.4													
			Tests	3.5													
			Training Course	3.4	G												
		23 52 46.00 20	SD-02 Shop Drawings														
			Fuel Train	1.2.2.2													
			Wiring Diagram	1.2.2.2													
			SD-03 Product Data														
			Boilers	2.1													

# SUBMITTAL REGISTER

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DB

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		23 52 46.00 20	Boiler Trim and Control Equipment	2.3													
			Burners and Control Equipment	2.2													
			Stack, Breeching, and Supports	2.3.17													
			SD-06 Test Reports														
			Operational Tests	3.5.1													
			SD-07 Certificates														
			Boilers	2.1													
			Burners and Control Equipment	2.2													
			Boiler Trim and Control Equipment	2.3													
			SD-08 Manufacturer's Instructions														
			Boilers	2.1													
			Feedwater Treatment System	2.3.8													
			SD-10 Operation and Maintenance Data														
			Boilers	2.1													
			SD-11 Closeout Submittals														
			Boilers	2.1													
		23 64 10	SD-03 Product Data														
			Posted Instructions	3.1.2													
			Verification of Dimensions	1.6.1													
			Factory Tests	2.8													
			System Performance Tests	3.5													
			Demonstrations	3.6													
			Refrigerant	2.5.1													

# SUBMITTAL REGISTER

CONTRACT NO.  
DB

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Combat Rescue Helicopter (CRH) Simulator Facility ADAL

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		23 64 10	Water Chiller - Field Acceptance Test Plan	3.4.1													
			SD-06 Test Reports														
			Field Acceptance Testing	3.4													
			Water Chiller - Field Acceptance Test Report	3.4.2													
			Factory Tests	2.8													
			System Performance Tests	3.5													
			SD-07 Certificates														
			Refrigeration System	3.1.7	G S												
			Ozone Depleting Substances Technician Certification	1.3.1													
			SD-10 Operation and Maintenance Data														
			Operation and Maintenance Manuals	3.6	G												
			SD-11 Closeout Submittals														
			Indoor Air Quality During Construction	3.3	S												
		23 64 26	SD-03 Product Data														
			Grooved Mechanical Connections For Steel	2.2.2.4	G												
			Grooved Mechanical Connections For Copper	2.3.3	G												
			Calibrated Balancing Valves	2.4.5	G												
			Water Temperature Mixing Valve	2.4.6	G												

# SUBMITTAL REGISTER

CONTRACT NO.  
DB

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Combat Rescue Helicopter (CRH) Simulator Facility ADAL

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		23 64 26	Water Temperature Regulating Valves	2.4.7	G												
			Water Pressure Reducing Valve	2.4.8													
			Pressure Relief Valve	2.4.9													
			Combination Pressure and Temperature Relief Valves	2.4.10													
			Expansion Joints	2.5.9	G												
			Pumps	2.6	G												
			Combination Strainer and Pump Suction Diffuser	2.5.3													
			Expansion Tanks	2.7													
			Air Separator Tanks	2.8													
			Water Treatment Systems	2.9	G												
			SD-06 Test Reports														
			Piping Welds NDE Report	3.1.1.3													
			Pressure Tests Reports	3.4.2	G												
			SD-07 Certificates														
			Employer's Record Documents (For Welding)	3.1.1.1													
			Welding Procedures and Qualifications	3.1.1.2													
			SD-08 Manufacturer's Instructions														
			Lesson plan for the Instruction Course	3.5	G												
			SD-10 Operation and Maintenance Data														



# SUBMITTAL REGISTER

CONTRACT NO.  
DB

TITLE AND LOCATION						CONTRACTOR											
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		23 64 26	Water Treatment Systems	2.9	G S												
			Calibrated Balancing Valves	2.4.5	G												
			Pressure Relief Valve	2.4.9	G												
			Combination Pressure and Temperature Relief Valves	2.4.10	G												
			Expansion Joints	2.5.9	G												
			Pumps	2.6	G												
			Combination Strainer and Pump Suction Diffuser	2.5.3	G												
			Expansion Tanks	2.7	G												
			Air Separator Tanks	2.8	G												
		23 81 23.00 20	SD-03 Product Data														
			Computer room air conditioning units	2.1	G												
			Space temperature control system drawings	2.2.2	G												
			Filters	2.1.4													
			Refrigerants	1.4.1	S												
			SD-06 Test Reports														
			Manufacturer's Factory Test Plans	2.5.1	G												
			Factory Test Reports	2.5.5	G												
			Field Test Schedule	3.3.2	G												
			Manufacturer's Field Test Plans	3.3.1	G												
			Field Test Reports	3.3.6	G												
			Aquatic Toxicity	2.1.2													

# SUBMITTAL REGISTER

CONTRACT NO.  
DB

TITLE AND LOCATION						CONTRACTOR											
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		23 81 23.00 20	SD-07 Certificates														
			Credentials of the Manufacturer's	3.3.3	G												
			Field Test Representative														
			Ozone Depleting Substances	1.4.1													
			Technician Certification														
			SD-08 Manufacturer's Instructions														
			Installation Manual for Each Type	3.1.2													
			of CRACU														
			SD-10 Operation and Maintenance														
			Data														
			Computer Room Air Conditioning	2.1	G												
			Units														
			SD-11 Closeout Submittals														
			Indoor Air Quality During	3.2	S												
			Construction														
		25 05 11.21	SD-01 Preconstruction Submittals														
			Wireless Communication	3.1.6.3	G												
			Request														
			Device Account Lock Exception	3.1.3.2	G												
			Request														
			Multiple IP Connection Device	3.9	G												
			Request														
			Contractor Computer	1.10.1.4	G												
			Cybersecurity Compliance														
			Statements														

# SUBMITTAL REGISTER

CONTRACT NO.  
DB

TITLE AND LOCATION						CONTRACTOR											
Combat Rescue Helicopter (CRH) Simulator Facility ADAL																	
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		25 05 11.21	Contractor Temporary Network Cybersecurity Compliance Statements	1.10.6	G												
			Qualifications	1.7.1.2	G												
			SD-02 Shop Drawings														
			User Interface Banner Schedule	3.1.4.1	G												
			Network Communication Report	1.8.2	G												
			Cybersecurity Riser Diagram	1.8.5	G												
			Control System Inventory Report	1.8.3	G												
			Cybersecurity Interconnection Schedule	1.8.1	G												
			SD-03 Product Data														
			Control System Cybersecurity Documentation	1.8.6	G												
			SD-06 Test Reports														
			Wireless Communication Test Report	3.1.6.4	G												
			SD-07 Certificates														
			Software Licenses	1.9	G												
			SD-11 Closeout Submittals														
			Password Summary Report	3.5.2.2.5	G												
			Software Recovery And Reconstitution Images	1.8.4	G												
			Device Audit Record Upload Software	3.2.2.1	G												
		25 05 11.23 01	SD-01 Preconstruction Submittals														

# SUBMITTAL REGISTER

CONTRACT NO.  
DB

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		25 05 11.23 01	Wireless Communication Request	3.1.6.3	G												
			Device Account Lock Exception Request	3.1.3.2	G												
			Multiple IP Connection Device Request	3.9	G												
			Contractor Computer Cybersecurity Compliance Statements	1.10.1.4	G												
			Contractor Temporary Network Cybersecurity Compliance Statements	1.10.6	G												
			Qualifications	1.7.1.2	G												
			SD-02 Shop Drawings														
			User Interface Banner Schedule	3.1.4.1	G												
			Network Communication Report	1.8.2	G												
			Cybersecurity Riser Diagram	1.8.5	G												
			Control System Inventory Report	1.8.3	G												
			Cybersecurity Interconnection Schedule	1.8.1	G												
			SD-03 Product Data														
			Control System Cybersecurity Documentation	1.8.6	G												
			SD-06 Test Reports														
			Wireless Communication Test Report	3.1.6.4	G												

# SUBMITTAL REGISTER

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		25 05 11.23 01	SD-07 Certificates														
			Software Licenses	1.9	G												
			SD-11 Closeout Submittals														
			Password Summary Report	3.5.2.2.5	G												
			Software Recovery And	1.8.4	G												
			Reconstitution Images														
			Device Audit Record Upload	3.2.2.1	G												
			Software														
		25 05 11.26 01	SD-01 Preconstruction Submittals														
			Wireless Communication	3.1.6.3	G												
			Request														
			Device Account Lock Exception	3.1.3.2	G												
			Request														
			Multiple IP Connection Device	3.9	G												
			Request														
			Contractor Computer	1.10.1.4	G												
			Cybersecurity Compliance														
			Statements														
			Contractor Temporary Network	1.10.6	G												
			Cybersecurity Compliance														
			Statements														
			Qualifications	1.7.1.2	G												
			SD-02 Shop Drawings														
			User Interface Banner Schedule	3.1.4.1	G												
			Network Communication Report	1.8.2	G												
			Cybersecurity Riser Diagram	1.8.5	G												

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		25 05 11.26 01	Control System Inventory Report	1.8.3	G												
			Cybersecurity Interconnection	1.8.1	G												
			Schedule														
			SD-03 Product Data														
			Control System Cybersecurity	1.8.6	G												
			Documentation														
			SD-06 Test Reports														
			Wireless Communication Test	3.1.6.4	G												
			Report														
			SD-07 Certificates														
			Software Licenses	1.9	G												
			SD-11 Closeout Submittals														
			Password Summary Report	3.5.2.2.5	G												
			Software Recovery And	1.8.4	G												
			Reconstitution Images														
			Device Audit Record Upload	3.2.2.1	G												
			Software														
		25 05 11.26 02	SD-01 Preconstruction Submittals														
			Wireless Communication	3.1.6.3	G												
			Request														
			Device Account Lock Exception	3.1.3.2	G												
			Request														
			Multiple IP Connection Device	3.9	G												
			Request														

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		25 05 11.26 02	Contractor Computer Cybersecurity Compliance Statements	1.10.1.4	G												
			Contractor Temporary Network Cybersecurity Compliance Statements	1.10.6	G												
			Qualifications	1.7.1.2	G												
			SD-02 Shop Drawings														
			User Interface Banner Schedule	3.1.4.1	G												
			Network Communication Report	1.8.2	G												
			Cybersecurity Riser Diagram	1.8.5	G												
			Control System Inventory Report	1.8.3	G												
			Cybersecurity Interconnection Schedule	1.8.1	G												
			SD-03 Product Data														
			Control System Cybersecurity Documentation	1.8.6	G												
			SD-06 Test Reports														
			Wireless Communication Test Report	3.1.6.4	G												
			SD-07 Certificates														
			Software Licenses	1.9	G												
			SD-11 Closeout Submittals														
			Password Summary Report	3.5.2.2.5	G												
			Software Recovery And Reconstitution Images	1.8.4	G												

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		25 05 11.26 02	Device Audit Record Upload Software	3.2.2.1	G												
		26 20 00	SD-02 Shop Drawings														
			Panelboards	2.12													
			Transformers	2.14	G												
			Cable Trays	2.3	G												
			SD-03 Product Data														
			Receptacles	2.11													
			Switches	2.10													
			Transformers	2.14													
			Enclosed Circuit Breakers	2.13													
			Manual Motor Starters	2.17													
			CATV Outlets	2.20.1													
			Bonding Busbar	2.21.3													
			Surge Protective Devices	2.27													
			SD-06 Test Reports														
			600-volt Wiring Test	3.5.2													
			Grounding System Test	3.5.5													
			Transformer Tests	3.5.3													
			Ground-fault Receptacle Test	3.5.4													
			SD-09 Manufacturer's Field Reports														
			Transformer Factory Tests	2.29.1													
			SD-10 Operation and Maintenance Data														
			Electrical Systems	1.5.1													



# SUBMITTAL REGISTER

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DB

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		26 28 01.00 10	SD-03 Product Data														
			Fault Current Analysis	2.7	G												
			Protective Device Coordination Study	2.7													
			Equipment	2.1													
			System Coordinator	1.4.1													
			Installation	3.2													
			SD-06 Test Reports														
			Field Testing	3.3													
			SD-07 Certificates														
			Devices and Equipment	1.6													
		26 29 23	SD-02 Shop Drawings														
			Schematic Diagrams	1.5.1	G												
			Interconnecting Diagrams	1.5.2	G												
			Installation Drawings	1.5.3	G												
			SD-03 Product Data														
			Variable Frequency Drives	2.1	G												
			Wires and Cables	2.3													
			Equipment Schedule	1.5.4													
			SD-06 Test Reports														
			VFD Test	3.2.1													
			Performance Verification Tests	3.2.2													
			Endurance Test	3.2.3													
			SD-08 Manufacturer's Instructions														
			Installation instructions	1.5.5													

# SUBMITTAL REGISTER

CONTRACT NO.  
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Combat Rescue Helicopter (CRH) Simulator Facility ADAL																	
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		26 29 23	SD-09 Manufacturer's Field Reports														
			VFD Factory Test Plan	2.5.1	G												
			Factory test results	1.5.6													
			SD-10 Operation and Maintenance Data														
			Variable Frequency Drives	2.1													
		26 41 00	SD-02 Shop Drawings														
			Overall lightning protection system	1.4.1.1	G												
			Each major component	1.4.1.2													
			SD-06 Test Reports														
			Lightning Protection and Grounding System Test Plan	1.4.3													
			Lightning Protection and Grounding System Test	3.4.1	G												
			SD-07 Certificates														
			Lightning Protection System Installers Documentation	1.2.3													
			Component UL Listed and Labeled	1.4.2													
			Lightning protection system inspection certificate	1.4.4	G												
			Roof manufacturer's warranty	3.1.1													
		26 51 00	SD-02 Shop Drawings														
			Luminaire Drawings	1.5.1													

SUBMITTAL REGISTER

CONTRACT NO.  
DB

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Combat Rescue Helicopter (CRH) Simulator Facility ADAL																		
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		26 51 00	Occupancy/Vacancy Sensor Coverage Layout	1.5.2														
			SD-03 Product Data															
			Luminaires	2.2	G													
			Light Sources	2.4														
			Drivers, Ballasts and Generators	2.3														
			LED Luminaire Warranty	1.6.1	G													
			Luminaire Design Data	1.5.4														
			Vacancy Sensors	2.5.3.2														
			Dimming Controllers (Dimmers)	2.5.2														
			Lighting Contactor	2.5.4														
			Timeswitch	2.5.5														
			Exit Signs	2.6.1	G													
			LED Emergency Drivers	2.6.2														
			Occupancy Sensors	2.5.3.1														
			Ambient Light Level Sensor	3.1.7														
			Lighting Control Panel	2.5.6	G													
			SD-06 Test Reports															
			LED Luminaire - IES LM-79 Test Report	1.5.5														
			LED Light Source - IES LM-80 Test Report	1.5.6														
			LED Light Source - IES TM-21 Test Report	1.5.7														
			Occupancy/Vacancy Sensor Verification Tests	1.5.8														

# SUBMITTAL REGISTER

CONTRACT NO.  
DB

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		26 51 00	Energy Efficiency	1.5.11.3	S												
			SD-07 Certificates														
			Luminaire Useful Life Certificate	1.6.1.1													
			LED Driver and Dimming Switch	1.5.3													
			Compatibility Certificate														
		26 56 00	SD-01 Preconstruction Submittals														
			Photometric Plan	1.5.2	G												
			LED Luminaire Warranty	1.7.1	G S												
			SD-02 Shop Drawings														
			Luminaire Drawings	1.5.1.1													
			Poles	1.5.1.2													
			SD-03 Product Data														
			LED Luminaires	2.2	G												
			Energy Star Label for LED	2.2	S												
			Luminaire Product														
			Luminaire Light Sources	2.2.2													
			Luminaire Power Supply Units	2.2.3													
			(Drivers)														
			Lighting Contactor	2.3.3													
			Time Switch	2.3.2													
			Photocell	2.3.1													
			Aluminum Poles	2.4.1	G												
			Brackets	2.5													
			SD-05 Design Data														
			Design Data for Luminaires	1.5.3													
			SD-06 Test Reports														

# SUBMITTAL REGISTER

CONTRACT NO.  
DB

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		26 56 00	LED Luminaire - IES LM-79 Test Report	1.5.4													
			LED Light Source - IES LM-80 Test Report	1.5.5													
			SD-07 Certificates														
			Luminaire Useful Life Certificate	1.7.1													
			SD-10 Operation and Maintenance Data														
			Electronic Ballast Warranty	1.7.2													
			Operational Service	1.8													
		27 10 00	SD-02 Shop Drawings														
			Telecommunications drawings	1.6.1.1	G												
			Telecommunications Space Drawings	1.6.1.2	G												
			SD-03 Product Data														
			Telecommunications cabling	2.3	G												
			Patch panels	2.4.5	G												
			Telecommunications outlet/connector assemblies	2.5	G												
			Equipment support frame	2.4.2	G												
			Connector blocks	2.4.3	G												
			Telecom Cabinets	2.4.2	G												
			Spare Parts	1.10.3	G												
			SD-06 Test Reports														
			Telecommunications cabling testing	3.5.1	G												

# SUBMITTAL REGISTER

CONTRACT NO.  
DB

TITLE AND LOCATION

Combat Rescue Helicopter (CRH) Simulator Facility ADAL

CONTRACTOR

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		27 10 00	SD-07 Certificates														
			Telecommunications Contractor	1.6.2.1	G												
			Key Personnel	1.6.2.2	G												
			Manufacturer Qualifications	1.6.2.3	G												
			Test plan	1.6.3	G												
			SD-09 Manufacturer's Field														
			Reports														
			Factory reel tests	2.10.1	G												
			SD-10 Operation and Maintenance														
			Data														
			Telecommunications cabling and	1.10.1	G												
			pathway system														
			SD-11 Closeout Submittals														
			Record Documentation	1.10.2	G												
		28 08 10	SD-05 Design Data														
			Test Plan	3.1	G												
			SD-06 Test Reports														
			Draft Test Report	3.2.2													
			Final Test Report	3.4	G												
			SD-07 Certificates														
			Qualifications	1.4.1													
		28 10 05	SD-02 Shop Drawings														
			ESS Components	1.3.3.1	G												
			Overall System Schematic	1.3.3.2	G												
			SD-03 Product Data														
			Premise Control Unit	2.3.6	G												

# SUBMITTAL REGISTER

CONTRACT NO.  
DB

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		28 10 05	Detection Sensors	2.3.7	G												
			Access Control Unit	2.4.5	G												
			Access Control Devices	2.4.6	G												
			Cameras	2.5.1	G												
			Camera Lenses	2.5.1.2	G												
			Camera Housing and Mounts	2.5.1.3	G												
			Video Recording	2.5.5.3	G												
			Printers	2.6.4	G												
			Communications Interface	2.7	G												
			Devices														
			Radio Frequency Link	2.7.3	G												
			Video and ESS Transmission	2.7.6	G												
			Batteries	2.11.1	G												
			Component Enclosure	2.13	G												
			Equipment Rack	2.14	G												
			SD-05 Design Data														
			Backup Battery Capacity	1.5.1	G												
			Calculations														
			Throughput Rates	2.4.3	G												
			CCTV Storage Calculations	1.5.2													
			SD-07 Certificates														
			Contractor Qualifications	1.3.4.1	G												
			Instructor Qualifications	1.3.4.2	G												
			Data Encryption	2.7.4	G												
			SD-10 Operation and Maintenance														
			Data														

# SUBMITTAL REGISTER

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		28 10 05	Training Plan	3.6.1	G												
			Training Content	3.6	G												
			ESS Components	1.3.3.1	G												
			ESS Software	1.6	G												
			SD-11 Closeout Submittals														
			As-Built Drawings	1.7	G												
		28 31 76	SD-02 Shop Drawings														
			Nameplates	2.1.2													
			Wiring Diagrams	3.2.1													
			System Layout	1.2.1	G												
			System Operation	2.3	G												
			Notification Appliances	2.18	G												
			Amplifiers	2.15	G												
			SD-03 Product Data														
			Technical Data and Computer Software	1.6	G												
			Terminal Cabinets	3.2.2													
			Manual Stations	2.17													
			Transmitters	2.21													
			Batteries	2.12.1													
			Battery Chargers	2.12.2													
			Smoke Sensors	2.10	G												
			Notification Appliances	2.18													
			Addressable Interface Devices	2.7													
			Amplifiers	2.15													
			Tone Generators	2.15													



# SUBMITTAL REGISTER

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TITLE AND LOCATION

Combat Rescue Helicopter (CRH) Simulator Facility ADAL

CONTRACTOR

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		28 31 76	Digitalized Voice Generators	2.15													
			Remote Fire Alarm/Mass	2.14	G												
			Notification Control Units														
			Radio Transmitter and Interface	2.21.1	G												
			Panels														
			Local Operating Console (LOC)	1.4.4	G												
			SD-05 Design Data														
			Battery Power	2.12.1.2													
			Battery Chargers	2.12.2													
			SD-06 Test Reports														
			Field Quality Control	3.7													
			Testing Procedures	3.7.1	G												
			Smoke Sensor Testing	2.10.4	G												
			SD-07 Certificates														
			Installer	1.7.1.4	G												
			Qualified Fire Protection Engineer	1.7.1.1	G												
			(QFPE)														
			Formal Inspection and Tests	3.7.2.2	G												
			Final Testing	3.7.2.3	G												
			SD-09 Manufacturer's Field														
			Reports														
			System Operation	2.3													
			Fire Alarm/Mass Notification	1.7.2.2													
			System														
			SD-10 Operation and Maintenance														
			Data														

# SUBMITTAL REGISTER

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Combat Rescue Helicopter (CRH) Simulator Facility ADAL

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		28 31 76	Operation and Maintenance (O&M) Instructions	3.10													
			Instruction of Government Employees	3.8													
			SD-11 Closeout Submittals														
			As-Built Drawings	3.7.2.4	G												
		31 00 00	SD-01 Preconstruction Submittals														
			Shoring	3.5	G												
			SD-03 Product Data														
			Utilization of Excavated Materials	3.9	G												
			Opening of any Excavation	3.4													
			SD-07 Certificates														
			Testing	3.16													
		31 05 19	SD-03 Product Data														
			Thread	2.1.2													
			Manufacturing Quality Control	2.2													
			Sampling and Testing														
			SD-04 Samples														
			Quality Assurance Samples and Tests	3.1													
			SD-07 Certificates														
			Geotextile	2.1.1													
		31 11 00	SD-01 Preconstruction Submittals														
			Herbicide Application Plan	3.1.1													
			SD-03 Product Data														
			Tree Wound Paint	2.1.1													

# SUBMITTAL REGISTER

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Combat Rescue Helicopter (CRH) Simulator Facility ADAL

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		31 11 00	Herbicides	1.3.2	G												
			SD-07 Certificates														
			Qualifications	1.3.2	G												
			SD-11 Closeout Submittals														
			Pest Management Report	3.5.1													
		32 01 19	SD-03 Product Data														
			Manufacturer's	3.1.2.3	G												
			Recommendations														
			Equipment	3.1													
			SD-04 Samples														
			Materials	1.3.1	G												
			SD-06 Test Reports														
			Certified Copies of the Test	1.3.1	G												
			Reports														
		32 05 33	SD-01 Preconstruction Submittals														
			Integrated Pest Management	2.1	G												
			Plan														
			SD-03 Product Data														
			Fertilizer	1.5.1	G												
			SD-07 Certificates														
			Maintenance Inspection Report	3.3.1													
			Plant Quantities	3.3.2	G												
			SD-11 Closeout Submittals														
			Tree Staking and Guying	3.3.3													
			Removal														
		32 11 20	SD-03 Product Data														

# SUBMITTAL REGISTER

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DB

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		32 11 20	Plant, Equipment, and Tools	1.4	G												
			SD-06 Test Reports														
			Initial Tests	2.2.1	G												
			In-Place Tests	3.12.1	G												
		32 11 23	SD-03 Product Data														
			Plant, Equipment, and Tools	1.4	G												
			SD-06 Test Reports														
			Initial Tests	2.3.1	G												
			In-Place Tests	3.13.1	G												
		32 12 13	SD-03 Product Data														
			Local/Regional Materials	2.2.4	S												
			SD-06 Test Reports														
			Sampling and Testing	3.7													
		32 12 16	SD-03 Product Data														
			Mix Design	2.4	G S												
			Quality Control	3.10	G												
			Material Acceptance	3.11	G												
			SD-04 Samples														
			Asphalt Cement Binder	2.3													
			Aggregates	2.2													
			SD-06 Test Reports														
			Aggregates	2.2	G												
			QC Monitoring	3.10.3.10													
			SD-07 Certificates														
			Asphalt Cement Binder	2.3	G												
			Testing Laboratory	3.6													

# SUBMITTAL REGISTER

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Combat Rescue Helicopter (CRH) Simulator Facility ADAL

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		32 13 13.06	SD-03 Product Data														
			Curing Materials	2.1.6	G												
			Admixtures	2.1.4	G												
			Dowel	2.1.5.1	G												
			Reinforcement	2.1.5.4	G												
			Cementitious Materials	2.1.1	G												
			Aggregate	2.1.3	G												
			SD-04 Samples														
			Field-Constructed Mockup	1.6.5													
			SD-05 Design Data														
			Mix Design	2.3	G												
			SD-06 Test Reports														
			Aggregate	2.1.3	G												
			Concrete Slump Tests	3.7.2	G												
			Air Content Tests	3.7.4	G												
			Flexural Strength Tests	3.7.3	G												
			Cementitious Materials	2.1.1	G												
			SD-07 Certificates														
			Ready-mixed Concrete Plant	1.6.1	G												
			Batch Tickets	1.6.4	G												
			Cementitious Materials	2.1.1	G												
		32 13 73	SD-03 Product Data														
			Equipment	2.1													
			Manufacturer's Instructions	3.1.1													
			SD-04 Samples														
			Compression Seals	2.2	G												

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		32 13 73	SD-06 Test Reports														
			Test Requirements	2.1.3													
		32 16 19	SD-03 Product Data														
			Concrete	2.1													
			Biodegradable Form Release Agent	2.6.5													
			Biodegradable Form Release Agent	3.2													
			SD-06 Test Reports														
			Field Quality Control	3.8													
		32 17 23	SD-03 Product Data														
			Surface Preparation Equipment List	2.1.1.1	G												
			Application Equipment List	2.1.2	G												
			Exterior Surface Preparation	3.2													
			Safety Data Sheets	1.3.1	G												
			Waterborne Paint	2.2.1	G												
			Solventborne Paint	2.2.2	G												
			SD-06 Test Reports														
			Waterborne Paint	2.2.1	G												
			Solventborne Paint	2.2.2	G												
			Test Reports	3.4.1													
			SD-07 Certificates														
			Qualifications	1.3.2	G												
			Waterborne Paint	2.2.1													
			Solventborne Paint	2.2.2													

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		32 17 23	Volatile Organic Compound	1.3.1	G												
			SD-08 Manufacturer's Instructions														
			Waterborne Paint	2.2.1	G												
			Solventborne Paint	2.2.2	G												
		32 31 13	SD-02 Shop Drawings														
			Fence Assembly	2.1	G												
			Location of Gate, Corner, End, and Pull Posts	3.2.2.1	G												
			Gate Assembly	2.1	G												
			Gate Hardware and Accessories	2.2.15	G												
			Erection/Installation Drawings	Part 3	G												
			SD-03 Product Data														
			Fence Assembly	2.1	G												
			Gate Assembly	2.1	G												
			Gate Hardware and Accessories	2.2.15	G												
			Zinc Coating	2.3.1	G												
			Aluminum Alloy Coating	1.3.1	G												
			Fabric	2.2.1	G												
			Stretcher Bars	2.2.10	G												
			Concrete	2.3.3	G												
			SD-04 Samples														
			Fabric	2.2.1	G												
			Posts	2.2.2	G												
			Braces	2.2.2	G												
			Line Posts	2.2.3	G												
			Sleeves	2.2.5	G												

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		32 31 13	Top Rail	2.2.6	G												
			Bottom Rail	2.2.8	G												
			Tension Wire	2.3.2	G												
			Stretcher Bars	2.2.10	G												
			Gate Posts	2.2.13	G												
			Gate Hardware and Accessories	2.2.15	G												
			Padlocks	2.2.18	G												
			Wire Ties	2.2.17	G												
			SD-07 Certificates														
			Certificates of Compliance	1.3.1													
			SD-08 Manufacturer's Instructions														
			Fence Assembly	2.1													
			Gate Assembly	2.1													
			Hardware Assembly	2.1													
			Accessories	2.1													
			SD-11 Closeout Submittals														
			Recycled Material Content	3.3	S												
		32 93 00	SD-01 Preconstruction Submittals														
			State Landscape Contractor's	1.4.3													
			License														
			Time Restrictions and Planting	1.6													
			Conditions														
			SD-03 Product Data														
			Peat	2.3.5													
			Composted Derivatives	2.3.8													
			Gypsum	2.3.9													



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		32 93 00	Drainage Pipe	2.7													
			Mulch	2.8	G												
			Ground Stakes	2.9.1.2													
			Fertilizer	2.5													
			Weed Control Fabric	2.6	G												
			Root Control Barrier	2.11	G												
			Staking Material	2.9.1													
			Metal Anchors	2.9.7													
			Antidesiccants	2.10													
			Photographs	1.4.4	G												
			SD-04 Samples														
			Mulch	2.8	G												
			SD-06 Test Reports														
			Topsoil Composition Tests	2.2.4													
			Percolation Test	1.4.5													
			SD-07 Certificates														
			Nursery Certifications	2.1.1													
			SD-10 Operation and Maintenance														
			Data														
			Plastic Identification	1.8													
		33 11 00	SD-01 Preconstruction Submittals														
			Connections	3.1.1	G												
			SD-03 Product Data														
			Pipe, Fittings, Joints and	2.1.1	G												
			Couplings														
			Valves	2.1.2	G												

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		33 11 00	Valve Boxes	2.1.2.6	G												
			Fire Hydrants	2.1.4.1	G												
			Pipe Restraint	2.2.1	G												
			Tapping Sleeves	2.2.2	G												
			Corporation Stops	2.2.6.1	G												
			Backflow Preventer	1.4.2.1.1	G												
			Precast Concrete Thrust Blocks	2.2.1.2	G												
			Disinfection Procedures	3.2.2	G												
			SD-06 Test Reports														
			Backflow Preventer Tests	3.3.1.5	G												
			Bacteriological Samples	3.3.1.4	G												
			Hydrostatic Sewer Test	3.2.1.1.6													
			Leakage Test	3.3.1.3													
			Hydrostatic Test	3.3.1.1													
			SD-07 Certificates														
			Pipe, Fittings, Joints and Couplings	2.1.1													
			Lining for Fittings	2.1.1.1.2													
			Valves	2.1.2													
			Fire Hydrants	2.1.4.1													
			Backflow Prevention Training Certificate	1.4.2.1.1.2													
			Backflow Tester	1.4.2.1.1.1													
			Fusion Technician Qualifications	1.4.2.2	G												
			SD-08 Manufacturer's Instructions														
			PVC Piping	2.1.1.1.1.1													

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ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH	GOVT CLASSIFICATION	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION		DATE FWD TO APPR AUTH/	APPROVING AUTHORITY				MAILED TO CONTR/	REMARKS
						SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION	DATE RCD FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE	DATE OF ACTION	DATE RCD FRM APPR AUTH	
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		33 11 00	PVC Piping For Service Lines	2.1.1.1.2													
		33 11 23	SD-03 Product Data														
			PE Pipe and Fittings	2.2.2	G												
			Valve Box	2.6													
			Service Regulators	2.4.3	G												
			Excess Flow Valve	2.4.4	G												
			Valves	2.4	G												
			Warning and Identification Tape	2.7	G												
			Risers	2.2.3	G												
			Transition Fittings	2.2.4	G												
			Gas meter	2.5	G												
			SD-06 Test Reports														
			PE Fusion Welding Inspection	3.2.2	G												
			Pressure Tests	3.2.3	G												
			SD-07 Certificates														
			Welder's Procedures and Qualifications	1.5.1	G												
			PE Welder's Procedures and Qualifications	1.5.2	G												
			Welder's Identification Symbols	1.5.1	G												
			SD-08 Manufacturer's Instructions														
			PE Pipe and Fittings	2.2.2	G												
		33 30 00	SD-01 Preconstruction Submittals														
			Contractor's License	1.3.1	G												
			SD-02 Shop Drawings														
			Installation Drawings	3.1.1	G												

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		33 30 00	SD-03 Product Data														
			Precast Concrete Manholes	2.2.5													
			Frames, Covers, and Gratings	2.2.8													
			Gravity Pipe	2.2.1													
			SD-06 Test Reports														
			Infiltration Tests And Exfiltration Tests	3.3.1.1.1	G												
			Deflection Testing	3.3.1.2													
			SD-07 Certificates														
			Portland Cement	2.2.3													
			Pre-Installation Inspection Request	3.3.3.1	G												
			Post-Installation Inspection	3.3.3.2	G												
		33 40 00	SD-04 Samples														
			Pipe for Culverts and Storm Drains	2.1													
			SD-07 Certificates														
			Resin Certification	2.1.1													
			Resin Certification	2.1.2													
			Oil Resistant Gasket	2.3.7.1													
			Hydrostatic Test on Watertight Joints	3.9.1.1													
			Determination of Density	3.9.1.2													
			Frame and Cover for Gratings	2.3.6													
			Post-Installation Inspection Report	3.9.2.1.3													

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(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
		33 40 00	Placing Pipe	3.3													
			SD-11 Closeout Submittals														
			Lid Verification Report	3.9.2.2	G												
		33 71 02	SD-02 Shop Drawings														
			Aluminum conductors	2.2.1	G												
			Precast underground structures	1.4.1	G												
			SD-03 Product Data														
			Precast concrete structures	2.10.1.1													
			Sealing Material	2.10.1.4													
			Pulling-In Irons	3.3.3													
			Handhole frames and covers	2.10.2	G												
			Composite/fiberglass handholes	2.10.3	G												
			Cable supports	2.11													
			SD-06 Test Reports														
			Field Acceptance Checks and Tests	3.14.1													
			SD-07 Certificates														
			Certificate of Conformance	1.4.2													
		33 82 00	SD-02 Shop Drawings														
			Telecommunications Outside Plant	1.6.1.1	G												
			Telecommunications Entrance Facility Drawings	1.6.1.2	G												
			SD-03 Product Data														
			Wire and cable	2.8	G												
			Cable splices, and connectors	2.5	G												

# SUBMITTAL REGISTER

CONTRACT NO.  
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TITLE AND LOCATION

Combat Rescue Helicopter (CRH) Simulator Facility ADAL

CONTRACTOR

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		33 82 00	Splice cases and other closures	2.3	G												
			Building protector assemblies	2.2.1	G												
			Protector modules	2.2.2	G												
			Spare Parts	1.8.2	G												
			SD-06 Test Reports														
			Pre-installation tests	3.5.1	G												
			Acceptance tests	3.5.2	G												
			Outside Plant Test Plan	1.6.3	G												
			SD-07 Certificates														
			Telecommunications Contractor	1.6.2.1	G												
			Key Personnel	1.6.2.2	G												
			Manufacturer's Qualifications	1.6.2.3	G												
			SD-08 Manufacturer's Instructions														
			Building protector assembly installation	2.2.1	G												
			Cable tensions	3.1.8.1	G												
			Fiber Optic Splices	3.1.10.2	G												
			SD-09 Manufacturer's Field Reports														
			Factory Reel Test Data	2.16.1	G												
			SD-10 Operation and Maintenance Data														
			Telecommunications outside plant (OSP)	1.6.1.1	G												
			SD-11 Closeout Submittals														
			Record Documentation	1.8.1	G												

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		41 22 13.14	SD-02 Shop Drawings														
			Overhead Electric Traveling Crane	1.6.4	G												
			Complete Schematic Wiring Diagram	3.3.3	G												
			SD-03 Product Data														
			Gear Reducers	2.3.7.1	G												
			Hoist Brakes	2.3.10	G												
			Travel Brakes	2.3.9	G												
			Load Blocks and Hooks	2.3.3	G												
			Wheels	2.3.8	G												
			Hoists	2.3.1	G												
			Sheaves	2.3.5	G												
			Commercial Hoist and Trolley Units	2.3.1	G												
			End Trucks	2.2.6	G												
			Bridge Rails	2.2.4	G												
			End Stops	2.2.8	G												
			Bumpers	2.2.8	G												
			Variable Frequency Drives	2.4.1	G												
			Motors	2.4.1	G												
			Runway Conductor System	2.4.8.1	G												
			Bridge Conductor System	2.4.8.2	G												
			Limit Switches	2.4.6	G												
			Radio Control System	2.4.7.1	G												
			Controls	2.4.2	G												

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(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
		41 22 13.14	Control Parameter Settings	3.3.3	G												
			Capacity Overload Protective Device	2.4.9	G												
			Painting System	2.5	G												
			SD-05 Design Data														
			Load and Sizing Calculations	1.6.5	G												
			SD-06 Test Reports														
			Hook Proof Test	1.6.2.3	G												
			Post-erection Inspection	3.4.1	G												
			Operational Tests	3.4.2	G												
			Hook Tram Measurement	3.4.4	G												
			Load Tests	3.4.5	G												
			SD-07 Certificates														
			Wire Ropes	1.6.3	G												
			Crane Runway System	1.6.3	G												
			Hazardous Material	1.6.3	G												
			Loss of Power Test	1.6.3	G												
			Coupling Alignment Verification Record	1.6.3	G												
			Overload Test	1.6.3	G												
			Brake Adjustment Record	1.6.3	G												
			Compliance with Listed Standards	1.6.3	G												
			Software and Services	1.6.3	G												
			SD-10 Operation and Maintenance Data														



# SUBMITTAL REGISTER

CONTRACT NO.

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### TITLE AND LOCATION

## Combat Rescue Helicopter (CRH) Simulator Facility ADAL

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SECTION 01 33 29

SUSTAINABILITY REPORTING

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 HEATING, REFRIGERATING AND AIR-CONDITIONING  
ENGINEERS (ASHRAE)

ASHRAE 189.1 (2018) Standard for the Design of  
High-Performance Green Buildings Except  
Low-Rise Residential Buildings

COUNCIL ON ENVIRONMENTAL QUALITY (CEQ) (WHITE HOUSE)

HPSB Guiding Principles (2016) Guiding Principles for Sustainable  
Federal Buildings and Determining  
Compliance with the Guiding Principles for  
Sustainable Federal Buildings

SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION  
(SMACNA)

ANSI/SMACNA 008 (2007) IAQ Guidelines for Occupied  
Buildings Under Construction, 2nd Edition

U.S. DEPARTMENT OF AGRICULTURE (USDA)

FSRIA 9002 Farm Security and Rural Investment Act  
Section 9002 (USDA BiopREFERRED Program)

U.S. DEPARTMENT OF ENERGY (DOE)

Energy Star (1992; R 2006) Energy Star Energy  
Efficiency Labeling System (FEMP)

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

10 CFR 433.300 Subpart C - Green Building Certification  
for Federal Buildings

40 CFR 247 Comprehensive Procurement Guideline for  
Products Containing Recovered Materials

1.2 SUMMARY

This specification includes general requirements and procedures for this project to be constructed and documented per the federally mandated High Performance and Sustainable Building or HPSB Guiding Principles (GP), Third Party Certification (TPC) requirements, UFC 1-200-02 High Performance and Sustainable Building Requirements, and other requirements

identified in this specification.

### 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. Submittals with an "S" are for inclusion in the Sustainability eNotebook, in conformance to this section. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

#### SD-01 Preconstruction Submittals

Preliminary High Performance and Sustainable Building Checklist;  
G, ECDF, S

Sustainability Action Plan; G, ECDF, S

Preliminary Sustainability eNotebook; G, ECDF, S

#### SD-11 Closeout Submittals

Final High Performance and Sustainable Building Checklist; G,  
ECDF, S

Final Sustainability eNotebook; G, ECDF, S

Amended Final Sustainability eNotebook; G, ECDF, S

Amended Final High Performance and Sustainable Building Checklist;  
G, ECDF, S

Third Party Certification Certificate, Assessment, or Validation;  
G, ECDF, S

### 1.4 GUIDING PRINCIPLES VALIDATION (GPV)

Provide construction related sustainability documentation to verify achievement of HPSB Guiding Principles Validation (GPV). Provide the following for GPV:

- a. Refer to HPSB Checklist at the end of this specification section. These requirements are based on legislative mandates that must be met by all projects. (Multiple checklists indicate multiple buildings that require HPSB tracking.)
- b. No variations to the HPSB Checklist are allowed without written consent from the Contracting Officer. Immediately bring to the attention of the Contracting Officer any changes that impact meeting the approved HPSB Guiding Principles Requirements for this project.
- c. All work, including "S" submittals, required to incorporate the applicable HPSB Guiding Principles Requirements indicated on the HPSB Checklist and in this contract.
- d. Sustainability Action Plan
- e. Construction related documentation for the project Sustainability

eNotebook and keep updated with regularly-scheduled construction meetings. Include construction related documentation containing the following components;

- (1) HPSB Checklist
- (2) Sustainability Action Plan
- (3) Documentation illustrating HPSB Guiding Principles Requirements compliance (including "S" submittals)

#### 1.4.1 Sustainability Action Plan

Include the following information in the Sustainability Action Plan:

- a. Planned method to achieve each construction related GP requirement.
- b. For each designated construction related **HPSB Guiding Principles** Requirements that is applicable, as defined in UFC 1-200-02, provide justification narrative explaining what precludes achieving specific sustainability requirement or goal. Provide analysis of particular requirement and level to which project is able to comply. Final government-approved narrative(s) must be included with the HPSB Checklist submittal.
- c. Name and contact information for: Point of Contact (POC) responsible for ensuring sustainability goals are accomplished and documentation is assembled. For TPC that includes onsite visit by third party representative, provide list of required attendees.
- d. Include the Indoor Air Quality plan with the Sustainability Action Plan.

#### 1.4.2 Costs

Bear all costs associated with constructing, demonstrating, and documenting that project complies with approved **HPSB Guiding Principles** Requirements.

#### 1.4.3 Calculations

Provide calculations, product data, labels and product certifications, required in this section to demonstrate compliance with the **HPSB Guiding Principles** Requirements.

#### 1.4.4 Third Party Certification (TPC) Documentation

Provide construction related sustainability documentation, in the format required by the TPC Organization, to the Contracting Officer for approval, and for final approval by the TPC organization. Third Party Certification is met when Government receives TPC organization certificate, assessment, or validation and plaque. Execute the following:

- a. Refer to TPC Checklist at the end of this specification section.  
(Multiple checklists indicate multiple buildings that require TPC.)
- b. Immediately bring to the attention of the Contracting Officer any project changes that impact meeting the approved TPC Requirements for this project.

- c. Complete all work required to incorporate the applicable TPC Requirements.
- d. Maintain the construction related information, and provide replacement pages, in the Sustainability eNotebook pertaining to additions and changes to the approved sustainability requirements. Maintain the Sustainability eNotebook in electronic format. For more explanation, refer to paragraph SUSTAINABILITY eNOTEBOOK. Provide the following components in the Sustainability eNotebook, in addition to the GPV components above:
  - (1) TPC Checklist
  - (2) Completed TPC documentation for each identified requirement. Forward to the Contracting Officer for approval. Upload onto the TPC Online documentation website.
  - (3) Copy of all correspondence with the TPC organization.
- e. Provide the following information in the Sustainability Action Plan. Provide this TPC information in addition to the GPV Action Plan items above:
  - (1) Planned method to achieve each TPC requirement.
  - (2) For each TPC requirement that is attempted but not achieved, provide narrative explaining how mission or activity precludes achieving specific sustainability requirement or goal. Provide analysis of particular requirement and level to which project is able to comply.
  - (3) Provide name and contact information for: Sustainability Point of Contact (POC) and other names of sustainability professionals responsible for ensuring TPC sustainability goals are accomplished and documentation is assembled. Sustainability POCs are also responsible for ensuring GPV required in paragraph GUIDING PRINCIPLES VALIDATION (GPV) above.
- f. Bear all costs associated with constructing, demonstrating, and documenting that project complies with approved TPC requirements, including but not limited to:
  - (1) TPC coordination with Government's AE and other consultants, TPC website requirements, and management for construction related documentation.
  - (2) Construction work required to incorporate TPC requirements.
  - (3) Submittals required to demonstrating compliance with Government approved TPC checklists.
  - (4) Documentation illustrating compliance with TPC requirements and additional documentation required by the TPC.
- g. Provide all calculations, product data, and certifications, assessments, or validations required in this contract to demonstrate compliance with the TPC Requirements of this section.

#### 1.4.5 Third Party Certification (TPC)

##### 1.4.5.1 TPC Registration Required

Pay all fees associated with registration and achievement of Third-Party Certification (TPC) to comply with all TPC and project requirements. An equivalent TPC organization must demonstrate equivalency for Government consideration and meet the requirements of 10 CFR 433.300, prior to use on the project. Third Party Certification is met when Government receives TPC organization certificate, assessment, or validation and plaque.

Register project with TPC organization using the following format and content:

- a. Project Title First Line: Building Owner (US Army, US Air Force, US Navy or US Marine Corps), Building Name (if known)
- b. Project Title Second Line: MILCON P#, DD1391 Project Name
- c. Project Address: UIC (Installation code), Category code, RPUID (Real Property Unique Identifier) Number
- d. Project Owner Organization: US Army, US Air Force, US Navy or US Marine Corps
- e. Primary Contact, Owner: Component Project Manager
- f. Building Owner Organization: US Army, US Air Force, US Navy or US Marine Corps
- g. Building Owner Organization Project Number
- h. Additional Contact, Building Owner: Department of Public Works, Public Works Officer, Base Civil Engineer, or Designee

##### 1.4.5.2 TPC Management and Certification

Execute the following TPC Certification, assessment, or validation requirements:

- a. Refer to TPC Checklist at the end of this specification section. (Multiple checklists indicate multiple buildings that require TPC.)
- b. Immediately bring to the attention of the Contracting Officer any project changes that impact meeting the approved TPC Requirements for this project.
- c. Complete all work required to incorporate the applicable TPC Requirements.
- d. Maintain the construction related information, and provide replacement pages, in the Sustainability eNotebook pertaining to additions and changes to the approved sustainability requirements. Maintain the Sustainability eNotebook in electronic format. For more explanation, refer to paragraph SUSTAINABILITY eNOTEBOOK. Provide the following components in the Sustainability eNotebook, in addition to the GPV components above:

- (1) TPC Checklist

- (2) Completed TPC Online forms for each identified requirement
- (3) Copy of all correspondence with the TPC organization including proof of TPC registration
- (4) Documentation illustrating compliance with TPC requirements and additional documentation as requested by the TPC
- (5) TPC Award Certificate, assessment, or validation
- e. Provide the following information in the Sustainability Action Plan. Provide this TPC information in addition to the Sustainability Action Plan items above:
  - (1) Planned method to achieve each TPC requirement.
  - (2) For each TPC requirement that is attempted but not achieved, provide narrative explaining how mission or activity precludes achieving specific sustainability requirement or goal. Provide analysis of particular requirement and level to which project is able to comply.
  - (3) Provide name and contact information for: Sustainability Point of Contact (POC) and other names of sustainability professionals responsible for ensuring TPC sustainability goals are accomplished and documentation is assembled. Sustainability POCs are also responsible for ensuring GPV required in paragraph GUIDING PRINCIPLES VALIDATION (GPV) above.
- f. Bear all costs associated with constructing, demonstrating, and documenting that project complies with approved TPC requirements, including but not limited to:
  - (1) Final TPC review, certification, assessment, or validation and plaque fees
  - (2) Online (or offline with secure facilities) TPC management and documentation.
  - (3) Obtaining TPC certification or validation based on Government-approved sustainability goals.
  - (4) Construction work required to incorporate TPC requirements.
  - (5) Submittals required to demonstrate compliance with Government approved TPC checklists.
- g. Provide all calculations, product data, and certifications, assessments, or validations required in this specification to demonstrate compliance with the TPC Requirements.
- h. Provide all online (or offline, with secure facilities) TPC management and documentation.
- i. Provide all required responses to third party organization.
- j. Facilitate and participate in required TPC site visit.



- k. Once Final TPC is achieved, turn over Administrative rights to online TPC to the Department of Public Works, Public Works Office, Base Civil Engineer, or designee, provided by the Contracting Officer.

## 1.5 SUSTAINABILITY SUBMITTALS

Provide HPSB Checklist and other documentation in the Sustainability eNotebook to indicate compliance with the sustainability requirements of the project.

### 1.5.1 High Performance Sustainable Building (HPSB) Checklist

Provide construction documentation that provides proof of and supports compliance with the completed HPSB Checklist.

#### 1.5.1.1 HPSB Checklist Submittals

Submit updated HPSB Checklist with each Sustainability eNotebook submittal. Attach final HPSB Checklist(s) to draft final DD1354 Real Property Record Submittal.

### 1.5.2 "S" Submittals for Sustainability Documentation

Submit the GPV and TPC sustainability documentation required in this specification as "S" submittals in all affected UFGS Sections.

- a. Highlight GPV and TPC compliance data in "S" submittal.
- b. Add "S" submittals to the Sustainability eNotebook only after submittal approval, and bookmark them as required in paragraph SUSTAINABILITY eNOTEBOOK below.
- c. Ensure all approved "S" submittals (the sustainability documentation requirements) are included in each Sustainability eNotebook submittal.

### 1.5.3 Sustainability eNotebook

The Sustainability eNotebook is an electronic organizational file that serves as a repository for all required sustainability submittals. To support documentation of compliance with an approved HPSB and TPC checklist, provide and maintain a comprehensive and current Sustainability eNotebook. Sustainability eNotebook must contain all required data to support full compliance with the **HPSB Guiding Principles** Requirements, including:

- a. HPSB checklist
- b. Sustainable Action Plan
- c. Calculations
- d. Labels
- e. "S" submittals (sustainability documentation requirements)
- f. Certifications, assessments, or validations
- g. TPC documentation required in paragraph THIRD PARTY CERTIFICATION (TPC) above.

Provide sustainability eNotebook in the form of an Adobe PDF file; bookmark each **HPSB Guiding Principles** Requirement, TPC requirement, and sub-bookmark at each document. Match format to **HPSB Guiding Principles** numbering system indicated herein. Maintain up-to-date information, spreadsheets, templates, and other required documentation with each current submittal. For TPC projects, provide a second Table of contents using TPC numbering system, for maintaining documentation unique to TPC.

Contracting Officer may deduct from the monthly progress payment accordingly if Sustainability eNotebook information is not current, until information is updated and on track per project goals.

#### 1.5.3.1 Sustainability eNotebook Submittal Schedule

Provide Sustainability eNotebook Submittals at the following milestones of the project:

a. **Preliminary Sustainability eNotebook**

Submit preliminary Sustainability eNotebook for approval at the Pre-construction conference. Include **Preliminary High Performance and Sustainable Building Checklist** and TPC checklist.

b. **Construction Progress Meetings.** Provide up-to-date GP and TPC documentation in the Sustainability eNotebook and TPC Online tool for each meeting.

c. **Final Sustainability eNotebook**

Provide up-to-date Sustainability eNotebook at the Beneficial Occupancy Date (BOD). Final progress payment retainage may be held by Contracting Officer until final sustainability documentation is complete. Submit three electronic copies of the Final Sustainability eNotebook on DVDs to the Government. Include **Final High Performance and Sustainable Building Checklist**.

d. **Amended Final Sustainability eNotebook**

Amend and resubmit the Final Sustainability eNotebook to include post-occupancy corrections, updates, and requirements. Include **Amended Final High Performance and Sustainable Building Checklist**. Final progress payment retainage may be held by Contracting Officer until amended final sustainability documentation is complete. Submit two final electronic copies of the Amended Final Sustainability eNotebook Submittal on DVDs to the Government no longer than 30 days after the GP, TPC designated data collection period.

#### 1.6 DOCUMENTATION REQUIREMENTS

a. Incorporate each of the following **HPSB Guiding Principles** Requirements into project construction; and provide documentation that proves compliance with each listed requirement. Items below are organized according to the **HPSB Guiding Principles**. For life-cycle cost analysis requirements, one document with all analyses is acceptable, with Contracting Officer approval.

b. For each of the following paragraphs that require the use of products listed on Government-required web sites, provide documentation of the

process used to select products, or process used to determine why listed products do not meet project performance requirements.

#### 1.6.1 Commissioning

Submit approved Final Commissioning Report required by Section 01 91 00.15 TOTAL BUILDING COMMISSIONING as proof of this tracking requirement.

#### 1.6.2 Energy Efficient Products

Provide only energy-using products that are Energy Star rated or have the Federal Energy Management Program (FEMP) recommended efficiency. Where Energy Star or FEMP recommendations have not been established, provide most efficient products that are life-cycle cost effective. Provide only energy using products that meet FEMP requirements for low standby power consumption. Energy efficient products can be found at:

<https://energy.gov/eere/femp/federal-energy-management-program> and <https://www.energystar.gov/>. Provide the following documentation:

Proof that products are labeled energy efficient and comply with the cited requirements.

#### 1.6.3 Indoor Water Use

Provide only water-consuming products that are EPA WaterSense labeled, or the most efficient water fixtures available that meet the requirements of ASHRAE 189.1 Section 6.3.2, when EPA WaterSense products are not available. Provide the following documentation:

For products available with EPA WaterSense labeling, proof that fixtures are labeled EPA WaterSense or Energy Star; for all other fixtures, proof they comply with the cited efficiency requirements.

#### 1.6.4 Reduce Volatile Organic Compounds (VOC) (Low Emitting Materials)

Meet the requirements of Table 3-1 at the end of this specification. Provide the following documentation:

Provide certifications or labels that demonstrate compliance with cited requirements.

#### 1.6.5 Indoor Air Quality During Construction

Prior to construction, create indoor air quality (IAQ) plan. Develop and implement the IAQ construction management plan during construction and flush building air before occupancy.

For new construction and for renovation of unoccupied existing buildings, indoor air quality plan must meet the requirements of ASHRAE 189.1 Section 10.3.1.4. (Indoor Air Quality (IAQ) Construction Management), with maximum outdoor air consistent with achieving relative humidity no greater than 60 percent. For renovation of occupied existing buildings, comply with ANSI/SMACNA 008 IAQ Guidelines for Occupied Buildings Under Construction.

Provide documentation showing that after construction ends and prior to occupancy, HVAC filters were replaced and building air was flushed out in accordance with the cited standard.

#### 1.6.6 Recycled Content

Comply with 40 CFR 247. Refer to <https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program> for assistance identifying products cited in 40 CFR 247. Selected products must comply with non-proprietary requirements of the Federal Acquisition Regulation and must meet performance requirements. Provide the following documentation:

- a. Manufacturers' documents stating the recycled content by material, or written justification for claiming one of the exceptions allowed on the cited website.
- b. Substitutions: Submit for Government approval, proposed alternative products or systems that provide equivalent performance and appearance and have greater contribution to project recycled content requirements. For all such proposed substitutions, submit with the Sustainability Action Plan accompanied by product data demonstrating equivalence.
- c. In order to complete compliance with FAR 52.223-9 Estimate of Percentage of Recovered Material Content for EPA Designated Items, refer to submittal requirement for recycled/recovered material content in Section 01 78 00.

#### 1.6.7 Bio-Based Products

Provide products and material composed of the highest percentage of biobased materials (including rapidly renewable resources and certified sustainably harvested products), consistent with FSRIA 9002 USDA BioPreferred Program, to the maximum extent possible without jeopardizing the intended end use or detracting from the overall quality delivered to the end user. Use only supplies and materials of a type and quality that conform to applicable specifications and standards.

Comply with FSRIA 9002 USDA BioPreferred Program. Refer to <https://www.biopreferred.gov/BioPreferred/> for the product categories and BioPreferred Catalog. Selected products must comply with non-proprietary requirements of the Federal Acquisition Regulation and must meet performance requirements. Provide the following documentation:

- a. USDA BioPreferred label for each product; for bio-based products used on project but not listed with BioPreferred program, provide bio-based content and percentage.
- b. In order to complete compliance with FAR 52.223-2 Affirmative Procurement of Biobased Products Under Service and Construction Contracts, refer to submittal requirement for biobased products in Section 01 78 00.

#### 1.6.8 Waste Material Management (Recycling - Construction)

Divert construction debris from landfill disposal where markets or onsite recycling exists and provide documentation in accordance with Section 01 74 19 CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT.

### PART 2 PRODUCTS

Not used.

## PART 3 EXECUTION

### 3.1 SUSTAINABILITY COORDINATION

#### 3.1.1 Coordinating Sustainability Documentation Progress

Provide sustainability focus and coordination at the following meetings to achieve sustainability goals. The designated TPC accredited sustainability professional responsible for GP and TPC documentation must participate in the following meetings to coordinate documentation completion.

- a. Pre-Construction Conference: Discuss the following: TPC and HPSB Checklists, Sustainability Action Plan, Construction submittal requirements and schedule, individuals responsible for achieving each Guiding Principle Requirement and TPC prerequisite and credit.
- b. Construction Progress Meetings: Review GP and TPC sustainability requirements with project team including contractor and subcontractor representatives. Demonstrate GP and TPC documentation is being collected and updated to the Sustainability eNotebook and TPC Online tool.
  - (1) For TPC that include onsite visit by third party representative, execute, coordinate, and facilitate the visit.
  - (2) Facility Turnover Meetings: Review Sustainability eNotebook, and TPC Online submission for completeness and identify any outstanding issues relating to final documentation requirements.
  - (3) Final Sustainability eNotebook Review

### 3.2 THIRD PARTY CERTIFICATION CERTIFICATE, ASSESSMENT, OR VALIDATION

Finalize the sustainability certification or validation process and obtain the TPC Plaque and Certificate, assessment, or validation, indicating completion of the projects sustainability goals.

Provide one original framed copy of the certificate, assessment, or validation, mounted in 1-inch deep metal frames, with double matt, and wire hangers, in location approved by Contracting Officer. Provide five copies of original certificate, assessment, or validation, and deliver to Contracting Officer, unless otherwise instructed. Provide and hang Plaque in a prominent interior location approved by the Contracting Officer.

3.3 TABLE 3-1 VOLATILE ORGANIC COMPOUNDS (VOC) (LOW EMITTING MATERIALS) REQUIREMENTS

TABLE 3-1 Volatile Organic Compounds (VOC) (Low Emitting Materials) Requirements				
Source: ASHRAE 189.1 section 8.4.2 (Materials)(Interior Applications Only)				
MATERIAL CATEGORY	EMISSIONS REQUIREMENT		MATERIALS WITH ADDED VOC REQUIREMENT	MATERIAL CATEGORY
Adhesives and Sealants	CDPH/EHLB/Standard method V1.1 (California Section 01350) (Use "office" or "classroom" space limits for all applications)	or	Adhesives (carpet, resilient, wood flooring; panel; primers) Sealants (acoustical; firestop; HVAC Air duct; primers) Caulks	SCAQMD Rule 1168 (Use "other" category for HVAC duct sealant) (for firestop adhesive, UFC 3-600-01 overrides conflicting requirements)
			Aerosol adhesives	Section 3 of Green Seal Standard GS-36 (except: cleaners, solvent cements, and primers used with plastic piping and conduit in plumbing, fire suppression, and electrical systems; HVAC air duct sealants when the application space air temp is less than 40 F (4.5 C).
Paints and Coatings	CDPH/EHLB/Standard method V1.1 (California Section 01350) (Use "office" or "classroom" space limits for all applications)	or	Flat and nonflat topcoats, primers, undercoaters, and anti-corrosive coatings	Green Seal Standard GS-11

TABLE 3-1 Volatile Organic Compounds (VOC) (Low Emitting Materials) Requirements				
Source: ASHRAE 189.1 section 8.4.2 (Materials)(Interior Applications Only)				
MATERIAL CATEGORY	EMISSIONS REQUIREMENT		MATERIALS WITH ADDED VOC REQUIREMENT	MATERIAL CATEGORY
Paints and Coatings	CDPH/EHLB/Standard method V1.1 (California Section 01350) (Use "office" or "classroom" space limits for all applications)	or	Concrete/masonry sealers (waterproofing concrete/masonry sealers), concrete curing compounds, dry fog coatings, faux finishing coatings, fire resistive coatings, floor coatings, graphic arts (sign) coatings, industrial maintenance coatings, mastic texture coatings, metallic pigmented coatings, multicolor coatings, pretreatment wash primers, reactive penetrating sealers, recycled coatings, shellacs (clear and opaque), specialty primers, stains, wood coatings (clear wood finishes), wood preservatives, and zinc primers	California Air Resources Board (CARB) Suggested Control Measure for Architectural Coatings or SCAQMD Rule 1113

TABLE 3-1 Volatile Organic Compounds (VOC) (Low Emitting Materials) Requirements				
Source: ASHRAE 189.1 section 8.4.2 (Materials)(Interior Applications Only)				
MATERIAL CATEGORY	EMISSIONS REQUIREMENT		MATERIALS WITH ADDED VOC REQUIREMENT	MATERIAL CATEGORY
Paints and Coatings	CDPH/EHLB/Standard method V1.1 (California Section 01350) (Use "office" or "classroom" space limits for all applications)	or	Basement specialty coatings, high-temperature coatings, low solids coatings, stone consolidants, swimming-pool coatings, tub- and tile-refining coatings, and waterproofing membranes	California Air Resources Board (CARB) Suggested Control Measure for Architectural Coatings
Floor Covering Materials	For carpet, all locations: CDPH/EHLB/Standard Method V1.1 (California Section 01350) or label for Section 9 of CDPH/EHLB/Standard Method V1.1 (California Section 01350)		none	none



**TABLE 3-1 Volatile Organic Compounds (VOC) (Low Emitting Materials) Requirements**

Source: ASHRAE 189.1 section 8.4.2 (Materials)(Interior Applications Only)

MATERIAL CATEGORY	EMISSIONS REQUIREMENT		MATERIALS WITH ADDED VOC REQUIREMENT	MATERIAL CATEGORY
Composite Wood, Wood Structural Panel, and Agrifiber Products particleboard medium density fiberboard (MDF) wheatboard strawboard panel substrates door cores no added urea-formaldehyde resins including laminating adhesives for composite wood and agrifiber assemblies	Third-party certification (approved by CARB) of California Air Resource Board's (CARB) regulation, Airborne Toxic Control Measure to Reduce Formaldehyde Emissions from Composite Wood Products		none	none
	CDPH/EHLB/Standard method V1.1 (California Section 01350) (Use "office" or "classroom" space limits for all applications) (except: Structural panel components such as plywood, particle board, wafer board, and oriented strand board identified as "EXPOSURE 1," "EXTERIOR," or "HUD-APPROVED" are considered acceptable for interior use.)			

TABLE 3-1 Volatile Organic Compounds (VOC) (Low Emitting Materials) Requirements				
Source: ASHRAE 189.1 section 8.4.2 (Materials)(Interior Applications Only)				
MATERIAL CATEGORY	EMISSIONS REQUIREMENT		MATERIALS WITH ADDED VOC REQUIREMENT	MATERIAL CATEGORY
Office Furniture Systems and Seating installed prior to occupancy	ANSI/BIFMA X7.1 ANSI/BIFMA X7.1: (95 percent of installed office furniture system workstations and seating units)  Section 7.6.2 of ANSI/BIFMA e3 (50 percent of office furniture system workstations and seating units)		none	none
Ceiling and Wall Systems ceiling and wall insulation acoustical ceiling panels tackable wall panels gypsum wall board and panels wall coverings	CDPH/EHLB/Standard method V1.1 (California Section 01350) (Use "office" or "classroom" space limits for all applications)		none	none

-- End of Section --

# Air Force Sustainability Requirements Scoresheet

HPSB COMPLIANCE (Updated Jan 2017)

\* required entry

## General Information



**SURVEY  
INCOMPLETE**

INCOMPLETE	
D9121006	Project ID (e.g. ABCD12345)
	Real Property Unique ID (RPUID)
	Facility Number
CRH Simulator Facility ADAL	Building Name
Kirtland AFB	Installation
Albuquerque	City
NM	State
Yes	CONUS
AFMC	MAJCOM
USACE	Construction Agent
Kohler, Janill	AFCEC DM/CM (Last Name, First Name)
\$16,000,000.00	PA
26,455	Building Size (SF)
2020	Program Year (FY####)
RFP/35% Design	Project Phase
06/14/19	Design Started (MM/DD/YY)
10/01/22	BOD (MM/DD/YY)
GBI GP	Guiding Principles Compliance Certification Method
	<input type="text"/> Date Project Registered (MM/DD/YY) <input type="text"/> Date Project Certified (MM/DD/YY)
100%	HPSB Compliant
16%	Energy Efficiency Achieved (% below ANSI/ASHRAE/IESNA Standard 90.1-2013)
2017V1	Scoresheet version

\*  
\*

# Air Force Sustainability Requirements Scoresheet

HPSB COMPLIANCE (Updated Jan 2017)

\* required entry

Color Coding: See Instructions Tab for more detail

Drop-Down Box	Yes or N/A
No Entry Required	No
Custom Entry	Recommended not Required

## 90.1-2013

### HPSB I: Employ Integrated Design Principles (UFC 1-200-02 para 2-2)

Total Points	2	Possible Points	2
Yes	HPSB I.1	Integrated Design	1
Yes	HPSB I.2	Commissioning	1

### HPSB II: Optimize Energy Performance (UFC 1-200-02 para 2-3)

Total Points	5	Possible Points	5
--------------	---	-----------------	---

Yes	HPSB II.1	Energy Efficiency	1
-----	-----------	-------------------	---

Yes	Reduce energy use 30% below ANSI/ASHRAE/IESNA Standard 90.1-2013 or IECC, or if not - achieve maximum energy efficiency that is lifecycle cost effective
16.0%	Insert percentage below ANSI/ASHRAE/IESNA Standard 90.1-2013 or IECC, in terms of energy use (e.g. 32)
101.8	Insert building energy intensity (kBtu/yr-sqft) calculated IAW 10 CFR 433
N/A	Roof Attributes (Recommended)
	Select roof types (Check below)

- ☐ Cool roof    ☐ Solar electric    ☐ Solar Passive  
☐ Green roof    ☐ Solar thermal

#### Energy Efficient Products

Yes
-----

N/A	HPSB II.2	On-site Renewable Energy	1
-----	-----------	--------------------------	---

N/A	Installed renewable energy elements or projects were not lifecycle cost effective
	Renewable energy types (check below)

- ☐ Solar PV    ☐ Geothermal    ☐ Hydro    ☐ Waste to Energy  
☐ Solar CP    ☐ GSHP    ☐ Wind    ☐ Renewables were not lifecycle cost effective  
☐ Solar Thermal Electric

	Insert generation capacity (kW)
	Insert percentage of total building

N/A	HPSB II.3	On-site Renewable Energy - Solar Hot Water Heater System	1
-----	-----------	--	---

N/A	Installed solar hot water heater system or found installation not lifecycle cost effective
	Insert generation capacity (MMBtu/yr)
	Insert percentage of demand

Yes	HPSB II.4	Metering	1
-----	-----------	----------	---

Yes	Electric Metering: Select N/A if no service
Yes	Natural Gas Metering: Select N/A if no service
N/A	Steam Metering: Select N/A if no service

### HPSB III: Protect and Conserve Water (UFC 1-200-02 para 2-4)

Total Points	6	Possible Points	6
--------------	---	-----------------	---

Yes	HPSB III.1	Indoor Water	1
Yes		Indoor Water Metering	1
Yes	HPSB III.2	Outdoor Water	1
Yes		Outdoor Water Metering	1
N/A	HPSB III.3	Alternative Water	1
Yes	HPSB III.4	Stormwater Management (LID Documentation per UFC 3-210-10)	1

	Change in Impervious Area (SF)
	Pre-Award Cost Estimate (\$)
Yes	Project addressed EISA 438
0	EISA Technical Constraints

- ☐ Retaining stormwater impact receiving water flow    ☐ Shallow bedrock, contaminated soil, high ground water table, underground utilities    ☐ Soil infiltration capacity limited  
☐ Site too small to infiltrate significant volume    ☐ Non-potable water demand to small    ☐ Structural, plumbing, and other mods not feasible  
☐ State or local restrict water harvesting    ☐ State or local restrict use of green    ☐ Other

	Percent Increase in Stormwater Runoff for 95 Percentile Storm (%) - or- Percent Increase in Stormwater Runoff from continuous simulation model, published data, studies, or other established tools (Reference UFC 3-210-10 Figure 2-1 Implementation of EISA Section 438)
Off-Site	LID Features Locations
1	Integrated Management Practices Employed

# Air Force Sustainability Requirements Scoresheet

HPSB COMPLIANCE (Updated Jan 2017)

\* required entry

- |   |   |  |  |
|---|---|--|--|
| <input checked="" type="checkbox"/> Bio-Retention | <input type="checkbox"/> Dry Wells                      | <input type="checkbox"/> Filter Strips             | <input type="checkbox"/> Grassed Swells        |
| <input type="checkbox"/> Infiltration Trench      | <input type="checkbox"/> Inlet Pollution Removal Device | <input type="checkbox"/> Permeable Pavement/Pavers | <input type="checkbox"/> Rain Barrels/Cisterns |
| <input type="checkbox"/> Soil Amendments          | <input type="checkbox"/> Tree Box Filters               | <input type="checkbox"/> Vegetated Buffers         | <input type="checkbox"/> Vegetated Roof        |
| <input type="checkbox"/> Other                    |   |  |  |

	Final LID Construction Cost (\$)
	Post Construction Analysis (Name of DOR)

## HPSB IV: Enhance Indoor Environmental Quality (UFC 1-200-02 para 2-5)

Total Points	8	Possible Points	8
Yes	HPSB IV.1	Thermal Comfort	1
Yes	HPSB IV.2	Ventilation	1
Yes	HPSB IV.3	Daylighting	1
Yes	HPSB IV.4	Moisture Control	1
Yes	HPSB IV.5	Low Emitting Materials	1
Yes	HPSB IV.6	Protect Indoor Air Quality during Construction	1
Yes	HPSB IV.7	Environmental Tobacco Smoke Control	1
Yes	HPSB IV.8	Occupant Health and Wellness	1

## HPSB V: Reduce Environmental Impact of Materials (UFC 1-200-02 para 2-6)

Total Points	5	Possible Points	5
Yes	HPSB V.1	Recycled Content	1
Yes	HPSB V.2	Biologically-based Products	1
Yes	HPSB V.3	Ozone Depleting Substances	1
Yes	HPSB V.4	Waste and Materials Management - Recycling	1
Yes	HPSB V.5	Waste and Materials Management - Divert 60% from Disposal	1
	Yes	60% or greater diverted	
		Insert percentage diverted from landfill	

## HPSB VI: Address Climate Change Risk (UFC 1-200-02 para 2-7)

Total Points	1	Possible Points	1
N/A	HPSB VI.1	Address Climate Change Risk	1
27	Federal Requirements - Yes or N/A		27
0	Federal Requirements - No		
100%	Percentage of Federal Requirements Met		

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SECTION 01 35 26

GOVERNMENTAL SAFETY REQUIREMENTS

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 PROFESSIONALS (ASSP)

ASSP A10.22	(2007; R 2017) Safety Requirements for Rope-Guided and Non-Guided Workers' Hoists
ASSP A10.34	(2001; R 2012) Protection of the Public on or Adjacent to Construction Sites
ASSP A10.44	(2014) Control of Energy Sources (Lockout/Tagout) for Construction and Demolition Operations
ASSP Z244.1	(2016) The Control of Hazardous Energy Lockout, Tagout and Alternative Methods
ASSP Z359.0	(2012) Definitions and Nomenclature Used for Fall Protection and Fall Arrest
ASSP Z359.1	(2016) The Fall Protection Code
ASSP Z359.11	(2014) Safety Requirements for Full Body Harnesses
ASSP Z359.12	(2009) Connecting Components for Personal Fall Arrest Systems
ASSP Z359.13	(2013) Personal Energy Absorbers and Energy Absorbing Lanyards
ASSP Z359.14	(2014) Safety Requirements for Self-Retracting Devices for Personal Fall Arrest and Rescue Systems
ASSP Z359.15	(2014) Safety Requirements for Single Anchor Lifelines and Fall Arresters for Personal Fall Arrest Systems
ASSP Z359.2	(2017) Minimum Requirements for a Comprehensive Managed Fall Protection Program
ASSP Z359.3	(2017) Safety Requirements for Lanyards and Positioning Lanyards
ASSP Z359.4	(2013) Safety Requirements for

Assisted-Rescue and Self-Rescue Systems,  
Subsystems and Components

ASSP Z359.6 (2016) Specifications and Design  
Requirements for Active Fall Protection  
Systems

ASSP Z359.7 (2011) Qualification and Verification  
Testing of Fall Protection Products

ASME INTERNATIONAL (ASME)

ASME B30.3 (2016) Tower Cranes

ASME B30.5 (2018) Mobile and Locomotive Cranes

ASME B30.7 (2011) Winches

ASME B30.9 (2018) Slings

ASME B30.20 (2018) Below-the-Hook Lifting Devices

ASME B30.22 (2016) Articulating Boom Cranes

ASME B30.23 (2011) Personnel Lifting Systems Safety  
Standard for Cableways, Cranes, Derricks,  
Hoists, Hooks, Jacks, and Slings

ASME B30.26 (2015; INT Jun 2010 - Jun 2014) Rigging  
Hardware

ASTM INTERNATIONAL (ASTM)

ASTM F855 (2017) 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 (2017; Errata 1-2 2017; INT 1 2017)  
National Electrical Safety Code

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 10 (2018; TIA 18-1) Standard for Portable  
Fire Extinguishers

NFPA 241 (2019) Standard for Safeguarding  
Construction, Alteration, and Demolition  
Operations

NFPA 51B (2014) Standard for Fire Prevention During  
Welding, Cutting, and Other Hot Work

NFPA 70 (2020; ERTA 20-1 2020; ERTA 20-2 2020; TIA



20-1; TIA 20-2; TIA 20-3; TIA 20-4)  
National Electrical Code

NFPA 70E (2018; TIA 18-1; TIA 81-2) Standard for  
Electrical Safety in the Workplace

TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA)

TIA-1019 (2012; R 2016) Standard for Installation,  
Alteration and Maintenance of Antenna  
Supporting Structures and Antennas

TIA-222 (2005G; Add 1 2007; Add 2 2009; Add 3  
2014; Add 4 2014; R 2014; R 2016)  
Structural Standards for Steel Antenna  
Towers and Antenna Supporting Structures

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 The Control of Hazardous Energy (Lock  
Out/Tag Out)

29 CFR 1910.333 Selection and Use of Work Practices

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

29 CFR 1926.552 Material Hoists, Personal Hoists, and  
Elevators

29 CFR 1926.553 Base-Mounted Drum Hoists

CPL 02-01-056 (2014) Inspection Procedures for Accessing  
Communication Towers by Hoist

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 in [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 [ASSP 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 [ASSP 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 USACE Property and Equipment

Interpret "USACE" property and equipment specified in USACE [EM 385-1-1](#) as Government property and equipment.

#### 1.2.17 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 an LHE mishap 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. Submittals with an "S" are for inclusion in the Sustainability eNotebook, in conformance with Section [01 33 29](#) SUSTAINABILITY REPORTING. Submit the following in accordance with Section [01 33 00](#) SUBMITTAL PROCEDURES:

[SD-01 Preconstruction Submittals](#)

[Accident Prevention Plan \(APP\); G](#)

#### SD-06 Test Reports

Monthly Exposure Reports

Notifications and Reports

Accident Reports; G

LHE Inspection Reports

#### SD-07 Certificates

Crane Operators/Riggers

Standard Lift Plan; G

Critical Lift Plan ; G

Activity Hazard Analysis (AHA)

Confined Space Entry Permit

Hot Work Permit

Certificate of Compliance

License Certificates

Radiography Operation Planning Work Sheet; G

Portable Gauge Operations Planning Worksheet; G

#### 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 REGULATORY REQUIREMENTS

In addition to the detailed requirements included in the provisions of this contract, comply with the most recent edition of USACE EM 385-1-1, and the following federal, state, and local laws, ordinances, criteria, rules and regulations. Submit matters of interpretation of standards to the appropriate administrative agency for resolution before starting work. Where the requirements of this specification, applicable laws, criteria, ordinances, regulations, and referenced documents vary, the most stringent requirements govern.

#### 1.6 SITE QUALIFICATIONS, DUTIES, AND MEETINGS

##### 1.6.1 Personnel Qualifications

##### 1.6.1.1 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.

#### 1.6.1.1.1 Additional Site Safety and Health Officer (SSHO) Requirements and Duties

The SSHO may not serve as the Quality Control Manager. The SSHO may not serve as the Superintendent.

#### 1.6.1.2 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.

##### 1.6.1.2.1 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 in accordance with EM 385-1-1, Section 34.

##### 1.6.1.2.2 Competent Person for Scaffolding

Provide a Competent Person for Scaffolding who meets the requirements of EM 385-1-1, Section 22.B.02 and herein.

##### 1.6.1.2.3 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, 21.B.03, and herein.

#### 1.6.1.3 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.

#### 1.6.1.4 Crane Operators/Riggers

Provide Operators, Signal Persons, and Riggers meeting the requirements in EM 385-1-1, Section 15.B for Riggers and Section 16.B for Crane Operators and Signal Persons. Provide proof of current qualification.

#### 1.6.2 Personnel Duties

##### 1.6.2.1 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 production 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 SSSH are subject to dismissal if the above duties are not being effectively carried out. If Superintendent, QC Manager, or SSSH 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.

### 1.6.3 Meetings

#### 1.6.3.1 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.
- d. The functions of a Preconstruction conference may take place at the Post-Award Kickoff meeting for Design Build Contracts.



#### 1.6.3.2 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, foremen, or CDSOs 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.

#### 1.7 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 Health Physicist (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 ASSP A10.34), and the environment.

#### 1.7.1 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.

#### 1.7.2 Plans

Provide plans in the APP in accordance with the requirements outlined in Appendix A of EM 385-1-1, including the following:

##### 1.7.2.1 COVID-19 Monitoring Plan

Include a site specific COVID-19 monitoring plan which addresses at a minimum the following elements:

- a. Procedures for periodic sanitation inspections.
- b. Procedures for disinfecting project site to include high traffic areas in accordance with Center for Disease Control (CDC) guidelines.
- c. Site specific measures to practice social distancing while working on the project, where practicable.
- d. Employee training on the signs, symptoms, and protection measures in accordance with CDC guidelines.
- e. Follow current published best practices by CDC, World Health Organization, and OSHA:
  - (1) [www.coronavirus.com](http://www.coronavirus.com)
  - (2) [www.cdc.gov/coronavirus](http://www.cdc.gov/coronavirus)
  - (3) <https://www.osha.gov/SLTC/covid-19/>
- f. Where more stringent federal, state, and local government COVID recommendations exist, the most stringent practice may apply.

#### 1.7.2.2 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, 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.)

#### 1.7.2.3 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.

#### 1.7.2.4 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. In addition, Critical Lift Plans are required for the following:

- a. Lifts over 50 percent of the capacity of barge mounted mobile crane's hoist.
- b. When working around energized power lines where the work will get closer than the minimum clearance distance in EM 385-1-1 Table 16-1.
- c. For lifts with anticipated binding conditions.
- d. When erecting cranes.

##### 1.7.2.4.1 Critical Lift Plan Planning and Schedule

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.

##### 1.7.2.4.2 Lifts of Personnel

In addition to the requirements of EM 385-1-1, Section 16.H.02, for lifts of personnel, demonstrate compliance with the requirements of 29 CFR 1926.1400 and EM 385-1-1, Section 16.T.

#### 1.7.2.5 Multi-Purpose Machines, Material Handling Equipment, and Construction Equipment Lift Plan

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. Written approval from a qualified registered professional engineer, after a safety analysis is performed, is allowed in lieu of the OEM's approval. 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.

#### 1.7.2.6 Fall Protection and Prevention (FP&P) Plan

The plan must comply with the requirements of EM 385-1-1, Section 21.D and ASSP 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).

#### 1.7.2.7 Rescue and Evacuation Plan

Provide a Rescue and Evacuation Plan in accordance with EM 385-1-1 Section 21.N and ASSP 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.

#### 1.7.2.8 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, ASSP Z244.1, and ASSP 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.

#### 1.7.2.9 Excavation Plan

Identify the safety and health aspects of excavation, and provide and prepare the plan in accordance with EM 385-1-1, Section 25.A and Section 31 00 00 EARTHWORK.

#### 1.7.2.10 Site Demolition Plan

Identify the safety and health aspects, and prepare in accordance with Section 02 41 00 DEMOLITION AND DECONSTRUCTION and referenced sources.

### 1.8 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.

#### 1.8.1 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.

#### 1.8.2 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.

### 1.9 DISPLAY OF SAFETY INFORMATION

#### 1.9.1 Safety Bulletin Board

Within one calendar day(s) 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](#).

#### 1.9.2 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.

#### 1.10 SITE SAFETY REFERENCE MATERIALS

Maintain safety-related references applicable to the project, including those listed in paragraph REFERENCES. Maintain applicable equipment manufacturer's manuals.

#### 1.11 EMERGENCY MEDICAL TREATMENT

Contractors must arrange for their own emergency medical treatment in accordance with EM 385-1-1. Government has no responsibility to provide emergency medical treatment.

#### 1.12 NOTIFICATIONS and REPORTS

##### 1.12.1 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, or any property damage. For LHE or rigging mishaps, notify the Contracting Officer as soon as practical but not more than 4 hours after mishap. 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.

##### 1.12.2 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 accidents) to establish the root cause(s) of the accident. Complete the LHE Accident Report (Crane and Rigging Accident Report) 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.

#### 1.12.3 LHE Inspection Reports

Submit LHE inspection reports required in accordance with EM 385-1-1 and as specified herein with Daily Reports of Inspections.

#### 1.12.4 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.

#### 1.13 HOT WORK

##### 1.13.1 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 Kirtland Air Force Base Fire Department. 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 Kirtland Air Force Base Fire Department phone number. REPORT ANY FIRE, NO MATTER HOW SMALL, TO THE RESPONSIBLE FIRE

DEPARTMENT IMMEDIATELY.

#### 1.13.2 Work Around Flammable Materials

Obtain permit approval 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 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

#### 1.14 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.

##### 1.14.1 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.

##### 1.14.2 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.

##### 1.14.3 Sewer Wet Wells

Sewer wet wells require continuous atmosphere monitoring with audible alarm for toxic gas detection.

##### 1.14.4 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.

#### 1.15 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.

### 3.1.3 Unforeseen Hazardous Material

If material(s) that may be hazardous to human health upon disturbance are encountered during construction operations, stop that portion of work and notify the Contracting Officer immediately. Within 14 calendar days the Government will determine if the material is hazardous. If material is not hazardous or poses no danger, the Government will direct the Contractor to proceed without change. If material is hazardous and handling of the material is necessary to accomplish the work, the Government will issue a modification pursuant to FAR 52.243-4 Changes and FAR 52.236-2 Differing Site Conditions.

### 3.2 UTILITY OUTAGE REQUIREMENTS

Apply for utility outages at least 14 days in advance. At a minimum, the written request must include the location of the outage, utilities being affected, duration of outage, any necessary sketches, and a description of the means to fulfill energy isolation requirements in accordance with EM 385-1-1, Section 11.A.02 (Isolation). Some examples of energy isolation devices and procedures are highlighted in EM 385-1-1, Section 12.D. In accordance with EM 385-1-1, Section 12.A.01, where outages involve Government or Utility personnel, coordinate with the Government on all activities involving the control of hazardous energy.

These activities include, but are not limited to, a review of HECP and HEC procedures, as well as applicable Activity Hazard Analyses (AHAs). In accordance with EM 385-1-1, Section 11.A.02 and NFPA 70E, work on energized electrical circuits must not be performed without prior government authorization. Government permission is considered through the permit process and submission of a detailed AHA. Energized work permits are considered only when de-energizing introduces additional or increased hazard or when de-energizing is infeasible.

### 3.3 OUTAGE COORDINATION MEETING

After the utility outage request is approved and prior to beginning work on the utility system requiring shut-down, conduct a pre-outage coordination meeting in accordance with EM 385-1-1, Section 12.A. This meeting must include the Prime Contractor, the Prime and subcontractors performing the work, the Contracting Officer, and the Installation representative. All parties must fully coordinate HEC activities with one another. During the coordination meeting, all parties must discuss and coordinate on the scope of work, HEC procedures (specifically, the lock-out/tag-out procedures for worker and utility protection), the AHA, assurance of trade personnel qualifications, identification of competent persons, and compliance with HECP training in accordance with EM 385-1-1, Section 12.C. Clarify when personal protective equipment is required during switching operations, inspection, and verification.

### 3.4 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, ASSP A10.44, NFPA 70E, and paragraph HAZARDOUS ENERGY CONTROL PROGRAM (HECP).

#### 3.4.1 Safety Preparatory Inspection Coordination Meeting with the Government or Utility

For electrical distribution equipment that is to be operated by Government or Utility personnel, the Prime Contractor and the subcontractor performing the work must attend the safety preparatory inspection coordination meeting, which will also be attended by the Contracting Officer's Representative, and required by EM 385-1-1, Section 12.A.02. The meeting will occur immediately preceding the start of work and following the completion of the outage coordination meeting. Both the safety preparatory inspection coordination meeting and the outage coordination meeting must occur prior to conducting the outage and commencing with lockout/tagout procedures.

#### 3.4.2 Lockout/Tagout Isolation

Where the Government or Utility performs equipment isolation and lockout/tagout, the Contractor must place their own locks and tags on each energy-isolating device and proceed in accordance with the HECP. Before any work begins, both the Contractor and the Government or Utility must perform energy isolation verification testing while wearing required PPE detailed in the Contractor's AHA and required by EM 385-1-1, Sections 05.I and 11.B. Install personal protective grounds, with tags, to eliminate the potential for induced voltage in accordance with EM 385-1-1, Section 12.E.06.

#### 3.4.3 Lockout/Tagout Removal

Upon completion of work, conduct lockout/tagout removal procedure in accordance with the HECP. In accordance with EM 385-1-1, Section 12.E.08, each lock and tag must be removed from each energy isolating device by the authorized individual or systems operator who applied the device. Provide formal notification to the Government (by completing the Government form if provided by Contracting Officer's Representative), confirming that steps of de-energization and lockout/tagout removal procedure have been conducted and certified through inspection and verification. Government or Utility locks and tags used to support the Contractor's work will not be removed until the authorized Government employee receives the formal notification.

### 3.5 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 ASSP Z359.2 and EM 385-1-1, Sections 21.A and 21.D.

#### 3.5.1 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 ASSP Z359.2 in the AHA.

### 3.5.2 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, ASSP Z359.0, ASSP Z359.1, ASSP Z359.2, ASSP Z359.3, ASSP Z359.4, ASSP Z359.6, ASSP Z359.7, ASSP Z359.11, ASSP Z359.12, ASSP Z359.13, ASSP Z359.14, and ASSP Z359.15.

#### 3.5.2.1 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.

#### 3.5.2.2 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.

### 3.5.3 Fall Protection for Roofing Work

Implement fall protection controls based on the type of roof being constructed and work being performed. Evaluate the roof area to be accessed for its structural integrity including weight-bearing capabilities for the projected loading.

#### a. Low Sloped Roofs:

- (1) For work within 6 feet of an edge, on a roof having a slope less than or equal to 4:12 (vertical to horizontal), protect personnel from falling by use of personal fall arrest/restraint systems,

guardrails, or safety nets. A safety monitoring system is not adequate fall protection and is not authorized. Provide in accordance with 29 CFR 1926.500.

- (2) For work greater than 6 feet from an edge, erect and install warning lines in accordance with 29 CFR 1926.500 and EM 385-1-1, Section L.

- b. Steep-Sloped Roofs: Work on a roof having a slope greater than 4:12 (vertical to horizontal) requires a personal fall arrest system, guardrails with toe-boards, or safety nets. This requirement also applies to residential or housing type construction.

#### 3.5.4 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.

#### 3.5.5 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.

#### 3.5.6 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, ASSP Z359.2, and ASSP Z359.4.

### 3.6 WORK PLATFORMS

#### 3.6.1 Scaffolding

Provide employees with a safe means of access to the work area on the scaffold. Climbing of any scaffold braces or supports not specifically designed for access is prohibited. Comply with the following requirements:

- a. Scaffold platforms greater than 20 feet in height must be accessed by use of a scaffold stair system.
- b. Ladders commonly provided by scaffold system manufacturers are prohibited for accessing scaffold platforms greater than 20 feet

maximum in height.

- c. An adequate gate is required.
- d. Employees performing scaffold erection and dismantling must be qualified.
- e. Scaffold must be capable of supporting at least four times the maximum intended load, and provide appropriate fall protection as delineated in the accepted fall protection and prevention plan.
- f. Stationary scaffolds must be attached to structural building components to safeguard against tipping forward or backward.
- g. Special care must be given to ensure scaffold systems are not overloaded.
- h. Side brackets used to extend scaffold platforms on self-supported scaffold systems for the storage of material are prohibited. The first tie-in must be at the height equal to 4 times the width of the smallest dimension of the scaffold base.
- i. Scaffolding other than suspended types must bear on base plates upon wood mudsills (2 in x 10 in x 8 in minimum) or other adequate firm foundation.
- j. Scaffold or work platform erectors must have fall protection during the erection and dismantling of scaffolding or work platforms that are more than 6 feet.
- k. Delineate fall protection requirements when working above 6 feet or above dangerous operations in the Fall Protection and Prevention (FP&P) Plan and Activity Hazard Analysis (AHA) for the phase of work.

### 3.6.2 Elevated Aerial Work Platforms (AWPs)

Workers must be anchored to the basket or bucket in accordance with manufacturer's specifications and instructions (anchoring to the boom may only be used when allowed by the manufacturer and permitted by the CP). Lanyards used must be sufficiently short to prohibit worker from climbing out of basket. The climbing of rails is prohibited. Lanyards with built-in shock absorbers are acceptable. Self-retracting devices are not acceptable. Tying off to an adjacent pole or structure is not permitted unless a safe device for 100 percent tie-off is used for the transfer.

Use of AWPs must be operated, inspected, and maintained as specified in the operating manual for the equipment and delineated in the AHA. Operators of AWPs must be designated as qualified operators by the Prime Contractor. Maintain proof of qualifications on site for review and include in the AHA.

## 3.7 EQUIPMENT

### 3.7.1 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.

### 3.7.2 Load Handling Equipment (LHE)

The following requirements apply. In exception, these requirements do not apply to commercial truck mounted and articulating boom cranes used solely to deliver material and supplies (not prefabricated components, structural steel, or components of a systems-engineered metal building) where the lift consists of moving materials and supplies from a truck or trailer to the ground; to cranes installed on mechanics trucks that are used solely in the repair of shore-based equipment; to crane that enter the activity but are not used for lifting; nor to other machines not used to lift loads suspended by rigging equipment. However, LHE accidents occurring during such operations must be reported.

- 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 B30.9 for slings, ASME B30.20 for below the hook lifting devices and ASME B30.26 for rigging hardware.
- e. 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.
- f. 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.
- g. Inspect, maintain, and recharge portable fire extinguishers as specified in NFPA 10, Standard for Portable Fire Extinguishers.

- h. All employees must keep clear of loads about to be lifted and of suspended loads, except for employees required to handle the load.
- i. Use cribbing when performing lifts on outriggers.
- j. The crane hook/block must be positioned directly over the load. Side loading of the crane is prohibited.
- k. 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.
- l. 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.
- m. 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.
- n. Certify that all LHE operators have been trained in proper use of all safety devices (e.g. anti-two block devices).
- o. 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.

### 3.7.3 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.

### 3.7.4 Base Mounted Drum Hoists

- a. Operation of base mounted drum hoists must comply with EM 385-1-1 and ASSP A10.22.
- b. Rigging gear must comply with applicable ASME/OSHA standards
- c. When used on telecommunication towers, base mounted drum hoists must comply with TIA-1019, TIA-222, ASME B30.7, 29 CFR 1926.552, and 29 CFR 1926.553.
- d. When used to hoist personnel, the AHA must include a written standard operating procedure. Operators must have a physical examination in accordance with EM 385-1-1 Section 16.B.05 and trained, at a minimum,



in accordance with EM 385-1-1 Section 16.U and 16.T. The base mounted drum hoist must also comply with OSHA Instruction CPL 02-01-056 and ASME B30.23.

- e. Material and personnel must not be hoisted simultaneously.
- f. Personnel cage must be marked with the capacity (in number of persons) and load limit in pounds.
- g. Construction equipment must not be used for hoisting material or personnel or with trolley/tag lines. Construction equipment may be used for towing and assisting with anchoring guy lines.

### 3.7.5 Use of Explosives

Explosives must not be used or brought to the project site without prior written approval from the Contracting Officer. Such approval does not relieve the Contractor of responsibility for injury to persons or for damage to property due to blasting operations.

Storage of explosives, when permitted on Government property, must be only where directed and in approved storage facilities. These facilities must be kept locked at all times except for inspection, delivery, and withdrawal of explosives.

## 3.8 EXCAVATIONS

Soil classification must be performed by a competent person in accordance with 29 CFR 1926 and EM 385-1-1.

### 3.8.1 Utility Locations

Provide a third party, independent, private utility locating company to positively identify underground utilities in the work area in addition to any station locating service and coordinated with the station utility department.

### 3.8.2 Utility Location Verification

Physically verify underground utility locations, including utility depth, by hand digging using wood or fiberglass handled tools when any adjacent construction work is expected to come within 3 feet of the underground system.

### 3.8.3 Utilities Within and Under Concrete, Bituminous Asphalt, and Other Impervious Surfaces

Utilities located within and under concrete slabs or pier structures, bridges, parking areas, and the like, are extremely difficult to identify. Whenever contract work involves chipping, saw cutting, or core drilling through concrete, bituminous asphalt or other impervious surfaces, the existing utility location must be coordinated with station utility departments in addition to location and depth verification by a third party, independent, private locating company. The third party, independent, private locating company must locate utility depth by use of Ground Penetrating Radar (GPR), X-ray, bore scope, or ultrasound prior to the start of demolition and construction. Outages to isolate utility systems must be used in circumstances where utilities are unable to be positively identified. The use of historical drawings does not alleviate

the Contractor from meeting this requirement.

### 3.9 ELECTRICAL

Perform electrical work in accordance with EM 385-1-1, Appendix A, Sections 11 and 12.

#### 3.9.1 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.

#### 3.9.2 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 and Local requirements applicable to where work is being performed.

#### 3.9.3 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.

#### 3.9.4 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.

#### 3.9.5 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.

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SECTION 01 42 00

SOURCES FOR REFERENCE PUBLICATIONS

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.

AACE INTERNATIONAL (AACE)  
1265 Suncrest Towne Centre Drive  
Morgantown, WV 26505-1876 USA  
Ph: 304-296-8444  
Fax: 304-291-5728  
E-mail: [info@aacei.org](mailto:info@aacei.org)  
Internet: <http://www.aacei.org>

ACOUSTICAL SOCIETY OF AMERICA (ASA)  
1305 Walt Whitman Road, Suite 300  
Melville, NY 11747-4300  
Ph: 516-576-2360  
Fax: 631-923-2875  
E-mail: [asa@aip.org](mailto:asa@aip.org)  
Internet: <http://asa.aip.org>

AIR-CONDITIONING, HEATING AND REFRIGERATION INSTITUTE (AHRI)  
2111 Wilson Blvd, Suite 500  
Arlington, VA 22201  
Ph: 703-524-8800  
Fax: 703-562-1942  
Internet: <http://www.ahrinet.org>

ALUMINUM ASSOCIATION (AA)  
National Headquarters  
1525 Wilson Boulevard, Suite 600  
Arlington, VA 22209  
Ph: 703-358-2960  
E-Mail: [info@aluminum.org](mailto:info@aluminum.org)  
Internet: <http://www.aluminum.org>

AMERICAN ARCHITECTURAL MANUFACTURERS ASSOCIATION (AAMA)  
1827 Walden Office Square, Suite 550  
Schaumburg, IL 60173-4268  
Ph: 847-303-5664  
Fax: 847-303-5774  
E-mail: [customerservice@aamanet.org](mailto:customerservice@aamanet.org)  
Internet: <http://www.aamanet.org>

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS  
(AASHTO)  
444 North Capital Street, NW, Suite 249  
Washington, DC 20001  
Ph: 202-624-5800  
Fax: 202-624-5806  
E-Mail: [info@aaashto.org](mailto:info@aaashto.org)  
Internet: <http://www.aashto.org>

AMERICAN ASSOCIATION OF TEXTILE CHEMISTS AND COLORISTS (AATCC)  
1 Davis Drive  
P.O. Box 12215  
Research Triangle Park, NC 27709-2215  
Ph: 919-549-8141  
Fax: 919-549-8933  
Internet: <http://www.aatcc.org>

AMERICAN BEARING MANUFACTURERS ASSOCIATION (ABMA)  
2025 M Street, NW, Suite 800  
Washington, DC 20036  
Ph: 202-367-1155  
E-mail: [info@americanbearings.org](mailto:info@americanbearings.org)  
Internet: <http://www.americanbearings.org>

AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS (ACGIH)  
1330 Kemper Meadow Drive  
Cincinnati, OH 45240  
Ph: 513-742-2020 or 513-742-6163  
Fax: 513-742-3355  
E-mail: [mail@acgih.org](mailto:mail@acgih.org)  
Internet: <http://www.acgih.org>

AMERICAN FOREST FOUNDATION (AFF)  
American Tree Farm System  
2000 M Street, NW, Suite 550  
Washington, DC 20036  
Ph: 202-765-3660  
Fax: 202-827-7924  
Email: [info@treefarmssystem.org](mailto:info@treefarmssystem.org)  
Internet: <https://www.treefarmssystem.org/standards-review>

AMERICAN GAS ASSOCIATION (AGA)  
400 North Capitol Street N.W.  
Suite 450  
Washington, D.C. 20001  
Ph: 202-824-7000  
Internet: <http://www.aga.org>

AMERICAN GEAR MANUFACTURERS ASSOCIATION (AGMA)  
1001 N. Fairfax Street, Suite 500  
Alexandria, VA 22314-1587

Ph: 703-684-0211  
Fax: 703-684-0242  
E-mail: tech@agma.org  
Internet: <http://www.agma.org>

AMERICAN HARDBOARD ASSOCIATION (AHA)  
1210 West Northwest Highway  
Palatine, IL 60067  
Ph: 847-934-8800  
Fax: 847-934-8803  
E-mail: aha@hardboard.org  
Internet: <http://domensino.com/AHA/>

AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)  
One East Wacker Drive, Suite 700  
Chicago, IL 60601-1802  
Ph: 312-670-2400  
Fax: 312-670-5403  
Bookstore: 800-644-2400  
E-mail: aisc@ware-pak.com  
Internet: <http://www.aisc.org>

AMERICAN IRON AND STEEL INSTITUTE (AISI)  
25 Massachusetts Avenue, NW Suite 800  
Washington, DC 20001  
Ph: 202-452-7100  
Internet: <http://www.steel.org>

AMERICAN LADDER INSTITUTE (ALI)  
2025 M St. NW  
Washington, DC 20036  
Ph: 202-367-1217  
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## PART 2 PRODUCTS

Not used

## PART 3 EXECUTION

Not used

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SECTION 01 45 00.00 10

QUALITY CONTROL

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** (2018) Standard Specification for Agencies Engaged in Construction Inspection, Testing, or Special Inspection

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. Submittals with an "S" are for inclusion in the Sustainability eNotebook, in conformance to Section 01 33 29 SUSTAINABILITY REPORTING. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

**SD-01 Preconstruction Submittals**

**Contractor Quality Control (CQC) Plan; G**

**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 FAR 52.246-12 Inspection of Construction. QC consists 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 is 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

Submit no later than 30 days after receipt of notice to proceed, the Contractor Quality Control (CQC) Plan proposed to implement the requirements of FAR 52.246-12 Inspection of Construction. The Government will consider an interim plan for the first 25 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. Furnish copies of these letters 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.
- j. Coordinate scheduled work with Special Inspections required by Section 01 45 35 SPECIAL INSPECTIONS, the Statement of Special Inspections and the Schedule of Special Inspections. Where the applicable Code issue by the International Code Council (ICC) calls for inspections by the Building Official, the Contractor must include the inspections in the Quality Control Plan and must perform the inspections required by the applicable ICC. The Contractor must perform these inspections using independent qualified inspectors. Include the Special Inspection Plan requirements in the QC Plan.

### 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 Postaward Conference and 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 7 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 graduate engineer, graduate architect, or a graduate of construction management, with a minimum of 5 years construction experience on construction similar to this Contract. This CQC System Manager is on the site at all times during construction and is employed by the prime Contractor. The CQC System Manager is assigned no other duties. 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 CQC Personnel

In addition to CQC personnel specified elsewhere in the contract, provide as part of the CQC organization specialized personnel to assist the CQC System Manager for the areas listed in the matrix below. These individuals or specialized technical companies are directly employed by the prime Contractor and can not be employed by a supplier or subcontractor on this project; are responsible to the CQC System Manager; are physically present at the construction site during work on the specialized personnel's areas of responsibility; have the necessary education or experience in accordance with the experience matrix listed herein. These individuals have no other duties other than quality control. A single person can cover more than one area provided that the single person is qualified to perform quality control activities in each designated and that workload allows.

Experience Matrix	
Area	Qualifications
Civil	Graduate Civil Engineer or Construction Manager with 2 years experience in the type of work being performed on this project or technician with 5 yrs related experience
Mechanical	Graduate Mechanical Engineer with 2 yrs experience or person with 5 years of experience supervising mechanical features of work in the field with a construction company
Electrical	Graduate Electrical Engineer with 2 years related experience or person with 5 years of experience supervising electrical features of work in the field with a construction company
Structural	Graduate Civil Engineer (with Structural Track or Focus) or Construction Manager with 2 years experience or person with 5 years of experience supervising structural features of work in the field with a construction company
Architectural	Graduate Architect with 2 years experience or person with 5 years related experience
Environmental	Graduate Environmental Engineer with 3 years experience
Submittals	Submittal Clerk with 1 year experience
Concrete, Pavements and Soils	Materials Technician with 2 years experience for the appropriate area
Testing, Adjusting and Balancing (TAB) Personnel	Specialist must be a member of AABC or an experienced technician of the firm certified by the NEBB

#### 3.4.4 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.

### 3.4.5 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. When Section 01 91 00.15 TOTAL BUILDING COMMISSIONING are included in the contract, the submittals required by those sections have to be coordinated with Section 01 33 00 SUBMITTAL PROCEDURES to ensure adequate time is allowed for each type of submittal required.

### 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. Review Special Inspections required by Section 01 45 35 SPECIAL INSPECTIONS, the Statement of Special Inspections and the Schedule of Special Inspections.
- f. Examination of the work area to assure that all required preliminary work has been completed and is in compliance with the Contract.

- g. 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.
- h. Review of the appropriate activity hazard analysis to assure safety requirements are met.
- i. Discussion of procedures for controlling quality of the work including repetitive deficiencies. Document construction tolerances and workmanship standards for that feature of work.
- j. Check to ensure that the portion of the plan for the work to be performed has been accepted by the Contracting Officer.
- k. Discussion of the initial control phase.
- l. The Government needs to be notified at least 72 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 sample panels 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.

- h. Coordinate scheduled work with Special Inspections required by Section 01 45 35 SPECIAL INSPECTIONS, the Statement of Special Inspections and the Schedule of Special Inspections.

### 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. Coordinate scheduled work with Special Inspections required by Section 01 45 35 SPECIAL INSPECTIONS, the Statement of Special Inspections and the Schedule of Special Inspections.

### 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 can be found at:

<https://www.erdc.usace.army.mil/Media/Fact-Sheets/Fact-Sheet-Article-View/Article/4766>

#### 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, concrete, asphalt, and steel is 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 of \$1,000.00 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 FAR 52.211-10 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 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 facility is complete and ready to be occupied. 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 with the customer 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 is required to be in attendance at the final acceptance inspection. Additional Government personnel including, but not limited to, those from Base/Post Civil Facility Engineer user groups, and major commands can 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 FAR 52.246-12 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

Sample forms 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.

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SECTION 01 45 00.15 10

RESIDENT MANAGEMENT SYSTEM CONTRACTOR MODE (RMS CM)

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 MEASUREMENT AND PAYMENT

The work of this section is not measured for payment. The Contractor is responsible for the work of this section, without any direct compensation other than the payment received for contract items.

1.3 CONTRACT ADMINISTRATION

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

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

1.3.1 Correspondence and Electronic Communications

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

1.3.2 Other Factors

Other portions of this document have a direct relationship to the reporting accomplished through RMS. Particular attention is directed to FAR 52.236-15 Schedules for Construction Contracts; FAR 52.232-27 Prompt

Payment for Construction Contracts; FAR 52.232-5 Payments Under Fixed-Priced Construction Contracts; Section 01 32 01.00 10 PROJECT SCHEDULE; Section 01 33 00 SUBMITTAL PROCEDURES; Section 01 35 26 GOVERNMENTAL SAFETY REQUIREMENTS; and Section 01 45 00.00 10 QUALITY CONTROL.

#### 1.4 RMS SOFTWARE

RMS is a Windows-based program that can be run on a Windows-based PC meeting the requirements as specified in paragraph SYSTEM REQUIREMENTS. Download, install, and be able to utilize the latest version of the RMS software within 7 calendar days of receipt of the Notice to Proceed. RMS software, user manuals, access and installation instructions, program updates and training information are available from the RMS website (<https://rms.usace.army.mil/>). The Government and the Contractor will have different access authorities to the same contract database through RMS. The common database will be updated automatically each time a user finalizes an entry or change.

#### 1.5 SYSTEM REQUIREMENTS

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

Recommended RMS System Requirements	
Hardware	
Windows-based PC	1.7 GHz i3; AMD A6 3650 GHz or higher processor (REQUIRED)
RAM	8 GB
Hard drive disk	100 GB space for sole use by RMS system
Monitor	Screen resolution 1366 x 768
Mouse or other pointing device	
Windows compatible printer	Laser printer must have 4 MB+ of RAM
Connection to the Internet	minimum 4 Mbs per user
Software	
MS Windows	Windows 10 x 64 bit (RMS requires 64 bit O/S) or newer (REQUIRED)
Word Processing software	Viewer for MS Word 2013, MS Excel 2013 or newer (REQUIRED)
E-mail	MAPI compatible (REQUIRED)

Recommended RMS System Requirements	
Virus protection software	Regularly upgraded with all issued Manufacturer's updates and is able to detect most zero day viruses (REQUIRED)

#### 1.6 CONTRACT DATABASE - GOVERNMENT

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

#### 1.7 CONTRACT DATABASE - CONTRACTOR

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

##### 1.7.1 Administration

###### 1.7.1.1 Contractor Information

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

###### 1.7.1.2 Subcontractor Information

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

###### 1.7.1.3 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" or "RFP".

###### 1.7.1.4 Equipment

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

#### 1.7.1.5 Reports

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

#### 1.7.1.6 Request For Information (RFI)

Create and track all Requests For Information (RFI) in the RMS Administration Module for Government review and response.

#### 1.7.2 Finances

##### 1.7.2.1 Pay Activity Data

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

##### 1.7.2.2 Payment Requests

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

#### 1.7.3 Quality Control (QC)

Enter and track implementation of the 3-phase QC Control System, QC testing, transferred and installed property and warranties in RMS. Prepare daily reports, identify and track deficiencies, document progress of work, and support other Contractor QC requirements in RMS. Maintain all data on a daily basis. Insure that RMS reflects all quality control methods, tests and actions contained within the Contractor Quality Control (CQC) Plan and Government review comments of same within 7 calendar days of Government acceptance of the CQC Plan.

##### 1.7.3.1 Quality Control (QC) Reports

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



#### 1.7.3.2 Deficiency Tracking.

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

#### 1.7.3.3 Three-Phase Control Meetings

Maintain scheduled and actual dates and times of preparatory and initial control meetings in RMS. Worksheets for the three-phase control meetings are generated within RMS.

#### 1.7.3.4 Labor and Equipment Hours

Enter labor and equipment exposure hours on a daily basis. Roll up the labor and equipment exposure data into a monthly exposure report.

#### 1.7.3.5 Accident/Safety Reporting

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

#### 1.7.3.6 Definable Features of Work

Enter each feature of work, as defined in the approved CQC Plan, into the RMS QC Module. A feature of work may be associated with a single or multiple-pay activities, however a pay activity is only to be linked to a single feature of work.

#### 1.7.3.7 Activity Hazard Analysis

Import activity hazard analysis electronic document files into the RMS QC Module utilizing the document package manager.

#### 1.7.4 Submittal Management

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

#### 1.7.5 Schedule

Enter and update the contract project schedule in RMS by either manually entering all schedule data or by importing the Standard Data Exchange Format (SDEF) file, based on the requirements in Section 01 32 01.00 10 PROJECT SCHEDULE.

#### 1.7.6 Closeout

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

### 1.8 IMPLEMENTATION

Use of RMS as described in the preceding paragraphs is mandatory. Ensure that sufficient resources are available to maintain contract data within the RMS system. RMS is an integral part of the Contractor's required management of quality control.

### 1.9 NOTIFICATION OF NONCOMPLIANCE

Take corrective action within 7 calendar days after receipt of notice of RMS noncompliance by the Contracting Officer.

## PART 2 PRODUCTS

Not Used

## PART 3 EXECUTION

Not Used

-- End of Section --

## SECTION 01 45 35

### SPECIAL INSPECTIONS

#### 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.

INTERNATIONAL CODE COUNCIL (ICC)

ICC IBC

(2018) International Building Code

##### 1.2 GENERAL REQUIREMENTS

Perform Special Inspections in accordance with the Statement of Special Inspections, Schedule of Special Inspections and Chapter 17 of ICC IBC. The Statement of Special Inspections and Schedule of Special Inspections are included as an attachment to this specification. Special Inspections are to be performed by an independent third party and are intended to ensure that the work of the prime contractor is in accordance with the Contract Documents and applicable building codes. Special inspections do not take the place of the three phases of control inspections performed by the Contractor's QC Manager or any testing and inspections required by other sections of the specifications.

##### 1.3 DEFINITIONS

###### 1.3.1 Continuous Special Inspections

Continuous Special Inspections is the constant monitoring of specific tasks by a special inspector. These inspections must be carried out continuously over the duration of the particular tasks.

###### 1.3.2 Periodic Special Inspections

Periodic Special Inspections are Special Inspections by the special inspector who is intermittently present where the work to be inspected has been or is being performed.

###### 1.3.3 Perform

Perform these Special Inspections tasks for each welded joint or member.

###### 1.3.4 Observe

Observe these Special Inspections items on a random daily basis. Operations need not be delayed pending these inspections.

###### 1.3.5 Special Inspector (SI)

A qualified person retained by the contractor and approved by the Contracting Officer as having the competence necessary to inspect a particular type of construction requiring Special Inspections. The SI

must be an independent third party hired directly by the Prime Contractor.

#### 1.3.6 Associate Special Inspector (ASI)

A qualified person who assists the SI in performing Special Inspections but must perform inspection under the direct supervision of the SI and cannot perform inspections without the SI on site.

#### 1.3.7 Third Party

A third-party inspector must not be a company employee of the Contractor or any Subcontractor performing the work to be inspected.

#### 1.3.8 Contracting Officer

The Government official having overall authority for administrative contracting actions. Certain contracting actions may be delegated to the Contracting Officer's Representative (COR).

#### 1.3.9 Contractor's Quality Control (QC) Manager

An individual retained by the prime contractor and qualified in accordance with the Section 01 45 00.00 20 QUALITY CONTROL having the overall responsibility for the Contractor's QC organization.

#### 1.3.10 Designer of Record (DOR)

A registered design professional contracted by the Government as an A/E responsible for the overall design and review of submittal documents prepared by others. The DOR is registered or licensed to practice their respective design profession as defined by the statutory requirements of the professional registration laws in state in which the design professional works. The DOR is also referred to as the Engineer of Record (EOR) in design code documents.

#### 1.3.11 Statement of Special Inspections (SSI)

A document developed by the DOR identifying the material, systems, components and work required to have Special Inspections.

#### 1.3.12 Schedule of Special Inspections

A schedule which lists each of the required Special Inspections, the extent to which each Special Inspections is to be performed, and the required frequency for each in accordance with ICC IBC Chapter 17.

### 1.4 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. Submittals with an "S" are for inclusion in the Sustainability eNotebook, in conformance to Section 01 33 29 SUSTAINABILITY REPORTING. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

#### SD-01 Preconstruction Submittals

Special Inspections Project Manual; G

Special Inspections Agency's Written Practices

NDT Procedures and Equipment Calibration Records

SD-06 Test Reports

Special Inspections Daily Reports

Special Inspections Biweekly Reports

SD-07 Certificates

Fabrication Plant

Steel Truss Plant

Wood Truss Plant

Steel Joist Institute Membership

Precast Concrete Institute (PCI) Certified Plant

Certificate of Compliance

Special Inspector Qualifications; G

Qualification Records for NDT technicians

SD-11 Closeout Submittals

Interim Final Report of Special Inspections

Comprehensive Final Report of Special Inspections; G

1.5 SPECIAL INSPECTOR QUALIFICATIONS

Submit qualifications for each special inspector.

Certifying Associations	
AABC	Associated Air Balance Council
ACI	American Concrete Institute
AWCI	Association of the Wall and Ceiling Industry
AWS	American Welding Society
FM	Factory Mutual
ICC	International Code Council
NDT	Nondestructive Testing

Certifying Associations	
NICET	National Institute for Certification in Engineering Technologies
PCI	Precast/Prestressed Concrete Institute
PTI	Post-Tensioning Institute
UL	Underwriters Laboratories

#### 1.5.1 Steel Construction and High Strength Bolting

##### 1.5.1.1 Special Inspector

- a. ICC Structural Steel and Bolting Special Inspector certificate with one year of related experience, or
- b. Registered Professional Engineer with related experience

##### 1.5.1.2 Associate Special Inspector

Engineer-In-Training with one year of related experience.

#### 1.5.2 Welding Structural Steel

##### 1.5.2.1 Special Inspector

- a. ICC Structural Welding Special Inspector certificate with one year of related experience, or
- b. AWS Certified Welding Inspector

##### 1.5.2.2 Associate Special Inspector

AWS Certified Associate Welding Inspector

#### 1.5.3 Nondestructive Testing of Welds

##### 1.5.3.1 Special Inspector

NDT Level III Certificate

##### 1.5.3.2 Associate Special Inspector

NDT Level II Certificate plus one year of related experience

#### 1.5.4 Cold Formed Steel Framing

##### 1.5.4.1 Special Inspector

- a. ICC Structural Steel and Bolting Special Inspector certificate with one year of related experience, or
- b. ICC Commercial Building Inspector with one year of experience, or
- c. ICC Residential Building Inspector with one year of experience, or

- d. Registered Professional Engineer with related experience

#### 1.5.4.2 Associate Special Inspector

Engineer-In-Training with one year of related experience.

#### 1.5.5 Concrete Construction

##### 1.5.5.1 Special Inspector

- a. ICC Reinforced Concrete Special Inspector Certificate with one year of related experience, or
- b. ACI Concrete Construction Special Inspector, or
- c. NICET Concrete Technician Level III Certificate in Construction Materials Testing, or
- d. Registered Professional Engineer with related experience

##### 1.5.5.2 Associate Special Inspector

- a. ACI Concrete Construction Special Inspector in Training, or
- b. Engineer-In-Training with one year of related experience

#### 1.5.6 Prestressed Concrete Construction

##### 1.5.6.1 Special Inspector

- a. ICC Pre-stressed Special Inspector Certificate with one year of related experience, or
- b. PCI Quality Control Technician/ Inspector Level II Certificate with one year of related experience, or
- c. Registered Professional Engineer with related experience

##### 1.5.6.2 Associate Special Inspector

- a. PCI Quality Control Technician/ Inspector Level I Certificate with one year of related experience, or
- b. Engineer-In-Training with one year of related experience

#### 1.5.7 Post-tensioned Concrete Construction

##### 1.5.7.1 Special Inspector

- a. PTI Level 2 Unbonded PT Inspector Certificate, or
- b. Registered Professional Engineer with related experience

##### 1.5.7.2 Associate Special Inspector

- a. PTI Level 1 Unbonded PT Inspector Certificate with one year of related experience, or

- b. Engineer-In-Training with one year of related experience

#### 1.5.8 Masonry Construction

##### 1.5.8.1 Special Inspector

- a. ICC Structural Masonry Special Inspector Certificate with one year of related experience, or
- b. Registered Professional Engineer with related experience

##### 1.5.8.2 Associate Special Inspector

Engineer-In-Training with one year of related experience.

#### 1.5.9 Verification of Site Soil Condition, Fill Placement and Load-Bearing Requirements

##### 1.5.9.1 Special Inspector

- a. ICC Soils Special Inspector Certificate with one year of related experience, or
- b. NICET Soils Technician Level II Certificate in Construction Material Testing, or
- c. NICET Geotechnical Engineering Technician Level II Construction or Generalist Certificate, or
- d. Geologist-In-Training with one year of related experience, or
- e. Registered Professional Engineer with related experience

##### 1.5.9.2 Associate Special Inspector

- a. NICET Soils Technician Level I Certificate in Construction Material Testing with one year of related experience, or
- b. NICET Geotechnical Engineering Technician Level I Construction or Generalist Certificate with one year of related experience, or
- c. Engineer-In-Training with one year of related experience

#### 1.5.10 Sprayed Fire-Resistant Material

##### 1.5.10.1 Special Inspector

- a. ICC Spray-applied Fireproofing Special Inspector Certificate, or
- b. ICC Fire Inspector I Certificate with one year of related experience, or
- c. Registered Professional Engineer with related experience

##### 1.5.10.2 Associate Special Inspector

Engineer-In-Training with one year of related experience



1.5.11 Mastic and Intumescent Fire-Resistant Coatings

1.5.11.1 Special Inspector

- a. ICC Spray-applied Fireproofing Special Inspector Certificate, or
- b. ICC Fire Inspector I Certificate with one year of related experience,  
or
- c. Registered Professional Engineer with related experience

1.5.11.2 Associate Special Inspector

Engineer-In-Training with one year of related experience.

1.5.12 Exterior Insulation and Finish System (EIFS)

1.5.12.1 Special Inspector

- a. AWCI EIFS Inspector Certificate, or
- b. Exterior Design Institute Certificate, or
- c. Registered Professional Engineer with related experience

1.5.12.2 Associate Special Inspector

Engineer-In-Training with one year of related experience.

1.5.13 Fire-Resistant Penetrations and Joints

1.5.13.1 Special Inspector

- a. Passed the UL Firestop Exam with one year of related experience, or
- b. Passed the FM Firestop Exam with one year of related experience, or
- c. Registered Professional Engineer with related experience

1.5.13.2 Associate Special Inspector

Engineer-In-Training with one year of related experience.

1.5.14 Smoke Control

1.5.14.1 Special Inspector

- a. AABC Technician Certification with one year of related experience, or
- b. Registered Professional Engineer with related experience

1.5.14.2 Associate Special Inspector

Engineer-In-Training with one year of related experience.

## PART 2 PRODUCTS

### 2.1 FABRICATOR SPECIAL INSPECTIONS

Special Inspections of fabricator's work performed in the fabricator's shop is required to be inspected in accordance with the Statement of Special Inspections and the Schedule of Special Inspections unless the fabricator is certified by the approved agency to perform such work without Special Inspections. Submit the following certification to the Contracting Officer for information to allow work performed in the fabricator's shop to not be subjected to Special Inspections.

American Institute of Steel Construction (AISC) Certified [Fabrication Plant](#), Category STD.

AISC Certified Steel Fabricator.

Truss Plate Institute (TPI) [steel truss plant](#) quality assurance program certification.

Truss Plate Institute (TPI) [wood truss plant](#) quality assurance program certification.

[Steel Joist Institute Membership](#)

Precast Concrete Institute (PCI) [Certified Plant](#), Group C

At the completion of fabrication, submit a [certificate of compliance](#), to be included with the comprehensive final report of Special Inspections, stating that the materials supplied and work performed by the fabricator are in accordance the construction documents.

## PART 3 EXECUTION

### 3.1 RESPONSIBILITIES

#### 3.1.1 Quality Control Manager

- a. Supervise all Special Inspectors required by the contract documents and the IBC.
- b. Verify the qualifications of all of the Special Inspectors.
- c. Verify the qualifications of fabricators.
- d. Maintain a 3-ring binder for the Special Inspector's daily and [biweekly reports](#). This file must be located in a conspicuous place in the project trailer/office to allow review by the Contracting Officer and the DOR.
- e. Maintain a rework items list that includes discrepancies noted on the Special Inspectors daily report.

#### 3.1.2 Special Inspectors

- a. Inspect all elements of the project for which the special inspector is qualified to inspect and are identified in the Schedule of Special Inspections.

- b. Attend preparatory phase meetings related to the Definable Feature of Work (DFOW) for which the special inspector is qualified to inspect.
- c. Submit Special Inspections agency's [written practices](#) for the monitoring and control of the agency's operations to include the following:
  - (1) The agency's procedures for the selection and administration of inspection personnel, describing the training, experience and examination requirements for qualifications and certification of inspection personnel.
  - (2) The agency's inspection procedures, including general inspection, material controls, and visual welding inspection.
- d. Submit [qualification records](#) for nondestructive testing (NDT) technicians designated for the project.
- e. Submit [NDT procedures and equipment calibration records](#) for NDT to be performed and equipment to be used for the project.
- f. Prepare a Special Inspections [Project Manual](#), which will cover the following:
  - (1) Roles and responsibilities of the following individuals during Special Inspections: SIOR, SI, ASI, General Contractor's QC Manager and SER.
  - (2) Organizational chart and/or communication plan, indicating lines of communication.
  - (3) Contractor's internal plan for scheduling inspections. Address items such as timeliness of inspection requests, who to contact for inspection requests, and availability of alternate inspectors.
  - (4) Indicate the government reporting requirements.
  - (5) Propose forms or templates to be used by SI and SIOR to document inspections.
  - (6) Indicate procedures for tracking nonconforming work and verification that corrective work is complete.
  - (7) Indicate how the SIOR and/or SI will participate in weekly QC meetings.
  - (8) Indicate how Special Inspections of shop fabricated items will be handled when the fabricator's shop is not certified per paragraph FABRICATOR SPECIAL INSPECTIONS.
  - (9) Include a section in the manual that covers each specific item requiring Special Inspections that is indicated on the Schedule of Special Inspections. Provide names and qualifications of each special inspector who will be performing the Special Inspections for each specific item. Provide detail on how the Special Inspections are to be carried out for each item so that the expectations are clear for the General Contractor and the Subcontractor performing the work.

Make a copy of the Special Inspections Project Manual available on the job site during construction. Submit a copy of the Special Inspections Project Manual for approval.

- i. Attend coordination and mutual understanding meeting where the information in the Special Inspections Project Manual will be reviewed to verify that all parties have a clear understanding of the Special Inspections provisions and the individual duties and responsibilities of each party.
- j. Maintain a 3-ring binder for the Special Inspector's daily and biweekly reports and the Special Inspections Project Manual. This file must be located in a conspicuous place in the project trailer/office to allow review by the Contracting Officer and the SER.
- f. Submit a copy of the [daily reports](#) to the QC Manager.
- g. Discrepancies that are observed during Special Inspections must be reported to the QC Manager for correction. If discrepancies are not corrected before the special inspector leaves the site, the observed discrepancies must be documented in the daily report.
- h. Submit a biweekly Special Inspection Report until all inspections are complete. A report is required for each biweekly period in which Special Inspections activity occurs, and must include the following:
  - (1) A brief summary of the work performed during the reporting time frame.
  - (2) Changes and/or discrepancies with the drawings, specifications and mechanical or electrical component certification, that were observed during the reporting period.
  - (3) Discrepancies which were resolved or corrected.
  - (4) A list of nonconforming items requiring resolution.
  - (5) All applicable test result including nondestructive testing reports.
- i. At the completion of each DFOV requiring Special Inspections, submit an [interim final report](#) of Special Inspections that documents the Special Inspections completed for that DFOV. Identify the inspector responsible for each item inspected and corrections of all discrepancies noted in the daily reports. The interim final report of Special Inspections must be signed, dated and indicate the certification of the special inspector qualifying them to conduct the inspection.
- j. At the completion of the project submit a [comprehensive final report](#) of Special Inspections that documents the Special Inspections completed for the project and corrections of all discrepancies noted in the daily reports. The comprehensive final report of Special Inspections must be signed, dated and indicate the certification of the special inspector qualifying them to conduct the inspection.

### 3.2 DEFECTIVE WORK

Check work as it progresses, but failure to detect any defective work or

materials must in no way prevent later rejection if defective work or materials are discovered, nor obligate the Contracting Officer to accept such work.

-- End of Section --

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Project: CRH SIMULATOR FACILITY ADAL  
 Location: Kirtland AFB  
 Project #:  
 Date: 10/1/2020



## STATEMENT OF SPECIAL INSPECTIONS

Project Seismic Design Category: D  
 Project Risk Category: II  
 Project Design Wind Speed (mph): 105  
 Number of Stories: 1  
 Structure Height Above Grade (ft): 50  
 Hazardous Occupancy or attached to such? No Group H Occupancies

### **Special Inspector of Record (SIOR)**

A Special Inspector of Record (SIOR) IS NOT required (per UFGS 01 45 35, Section 1.3.8)

### **Lateral Force Resisting System (LFRS)**

2018 IBC 1704.3.2 and 1704.3.3

Following is a listing of critical main wind/seismic force resisting systems for this structure. Carefully inspect these elements as part of the roles and responsibilities of the Special Inspector (reference the Schedule of Special Inspections for inspection checklists).

Vertical LFRS Elements	Notes
Special Reinforced Masonry Shearwalls	
Ordinary Concentric Braced Frames	Mechanical Yard Screenwall Bracing
Horizontal LFRS Elements	Notes
Continuous Roof Ties	See Roof Plan
Metal Roof Deck & Related Fastening System	See Roof Plan
Out of Plane Wall Connections	See Structural Plans and Details

Project: CRH SIMULATOR FACILITY ADAL  
Location: Kirtland AFB  
Project #: 0  
Date: 10/1/2020

### Designated Seismic Systems (DSS)

(2018 IBC 1705.13.3) (ASCE 7-16, 13.2.2, C13.2.2) (UFC 3-301-1, 2-5.3)

Non-structural 'Designated Seismic Systems' (DSS) must remain operable and contain hazardous substances following a design earthquake. Accordingly, all Designated Seismic Systems must be listed below and must be certified by the manufacturer to remain both operable and/or to contain hazardous substances after a design earthquake per UFC 3-301-01, Section 3-6.2. Submit said Certificates of Compliance to the Contracting Officer for each DSS after they have been reviewed and accepted by the EOR/DOR.

Additionally, the below listed Designated Seismic Systems must be carefully inspected by the Special Inspector according to the requirements noted in the Schedule of Special Inspections, Section AA.

#### ELECTRICAL Designated Seismic Systems (DSS) Requiring a Certificate of Compliance

1.	DSS Emergency or Standby Power System
2.	Telecommunication Cabinets
3.	Cable Trays and Conduits
4.	
5.	

If additional space is required, append an additional sheet listing the remaining DSS

#### MECHANICAL/PLUMBING Designated Seismic Systems (DSS) Requiring a Certificate of Compliance

1.	DSS Gas lines and associated fittings, anchorage, & flexible Connections
2.	
3.	
4.	
5.	
6.	

If additional space is required, append an additional sheet listing the remaining DSS

#### OTHER Designated Seismic Systems (DSS) Requiring a Certificate of Compliance

1.	DSS Building egress stair systems
2.	DSS Building fire sprinkler systems
3.	
4.	
5.	
6.	

### Final Walk Down Inspection and Report

(UFC 3 301 01 SECTION 2-5.4)

Designated Seismic Systems shall receive a final walk-down inspection by the Registered Design Professional in Responsible Charge

Final Walk Down Report, Prepared by the Registered Design Professional in Responsible Charge, Must Include:

1. Record observations of Final Walk Down Inspection
2. Document that Inspections were performed in accordance with the Schedule of Special Inspections
3. Document that all Designated Seismic Systems are installed according to construction/manufacture document requirements, and that Compliance Certificates have been collected (UFC 03 301 01, 3-6.2, 13.2.2.2).



## SCHEDULE OF SPECIAL INSPECTIONS

Reference UFGS 01 45 35 for all requirements not noted as part of this schedule.

### **INSPECTION DEFINITIONS:**

- PERFORM:** Perform these tasks for each weld, fastener or bolted connection, and noted verification.
- OBSERVE:** Observe these items randomly during the course of each work day to insure that applicable requirements are being met. Operations need not be delayed pending these inspections at contractor's risk.
- DOCUMENT:** Document, with a report, that the work has been performed in accordance with the contract documents. This is in addition to any other reports required in the Special Inspections guide specification.
- CONTINUOUS:** Constant monitoring of identified tasks by a special inspector over the duration of performance of said tasks.

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The Seismic Design Category for this project is: ☐ A, ☐ B, ☐ C, ☒ D, ☐ E, ☐ F (check appropriate box)

**STRUCTURAL - STEEL – WELDING SECTION****ALL OR PORTIONS OF THIS SECTION ARE APPLICABLE IF BOX IS CHECKED: ☒**

STEEL INSPECTION <u>PRIOR TO WELDING</u> – VERIFY THE FOLLOWING ARE IN COMPLIANCE 2018 IBC 1705.2.1, AISC 360-16: Table C-N5.4-1		
TASK	INSPECTION TYPE <sup>1</sup>	DESCRIPTION
1. Verify that the welding procedures specification (WPS) is available	<b>PERFORM</b>	
2. Verify manufacturer certifications for welding consumables are available	<b>PERFORM</b>	
3. Verify material identification	<b>PERFORM</b>	Type and grade.
4. Welder Identification System	<b>PERFORM</b>	The fabricator or erector, as applicable, shall maintain a system by which a welder who has welded a joint or member can be identified. Stamps, if used, shall be the low-stress type.
5. Fit-up of groove welds (including joint geometry)	OBSERVE	<ul style="list-style-type: none"> <li>✓ Joint preparation</li> <li>✓ Dimensions (alignment, root opening, root face, bevel)</li> <li>✓ Cleanliness (condition of steel surfaces)</li> <li>✓ Tacking (tack weld quality and location)</li> <li>✓ Backing type and fit (if applicable)</li> </ul>
6. Configuration and finish of access holes	OBSERVE	
7. Fit-up of fillet welds	OBSERVE	<ul style="list-style-type: none"> <li>✓ Dimensions (alignment, gaps at root)</li> <li>✓ Cleanliness (condition of steel surfaces)</li> <li>✓ Tacking (tack weld quality and location)</li> </ul>
STEEL INSPECTION <u>DURING WELDING</u> – VERIFY THE FOLLOWING ARE IN COMPLIANCE 2018 IBC 1705.2.1, AISC 360-16: Table C-N5.4-2		
TASK	INSPECTION TYPE	DESCRIPTION
8. Use of qualified welders	<b>PERFORM</b>	Welding by welders, welding operators, and tack welders who are qualified in conformance with requirements.
9. Control and handling of welding consumables	OBSERVE	<ul style="list-style-type: none"> <li>✓ Packaging</li> <li>✓ Electrode atmospheric exposure control</li> </ul>
10. No welding over cracked tack welds	OBSERVE	
11. Environmental conditions	OBSERVE	<ul style="list-style-type: none"> <li>✓ Wind speed within limits</li> <li>✓ Precipitation and temperature</li> </ul>
12. Welding Procedures Specification followed	OBSERVE	<ul style="list-style-type: none"> <li>✓ Settings on welding equipment</li> <li>✓ Travel speed</li> <li>✓ Selected welding materials</li> <li>✓ Shielding gas type/flow rate</li> <li>✓ Preheat applied</li> <li>✓ Interpass temperature maintained (min./max.)</li> <li>✓ Proper position (F, V, H, OH)</li> <li>✓ Intermix of filler metals avoided</li> </ul>
13. Welding techniques	OBSERVE	<ul style="list-style-type: none"> <li>✓ Interpass and final cleaning</li> <li>✓ Each pass within profile limitations</li> <li>✓ Each pass meets quality requirements</li> </ul>

<sup>1</sup> **PERFORM:** Perform these tasks for each weld, fastener or bolted connection, and required verification.

**OBSERVE:** Observe these items on a random sampling basis daily to insure that applicable requirements are met. Operations need not be delayed pending these inspections at contractor's risk.

**STRUCTURAL - STEEL – WELDING SECTION (CONTINUED)**

STEEL INSPECTION AFTER WELDING – VERIFY THE FOLLOWING ARE IN COMPLIANCE 2018 IBC 1705.2.1, AISC 360-16: Table C-N5.4-3		
TASK	INSPECTION TYPE <sup>1</sup>	DESCRIPTION
14. Welds cleaned	OBSERVE	
15. Size, length, and location of all welds	PERFORM	Size, length, and location of all welds conform to the requirements of the detail drawings.
16. Welds meet visual acceptance criteria	PERFORM AND DOCUMENT	<ul style="list-style-type: none"> <li>✓ Crack prohibition</li> <li>✓ Weld/base-metal fusion</li> <li>✓ Crater cross section</li> <li>✓ Weld profiles</li> <li>✓ Weld size</li> <li>✓ Undercut</li> <li>✓ Porosity</li> </ul>
17. Arc strikes	PERFORM	
18. k-area	PERFORM	When welding of doubler plates, continuity plates or stiffeners has been performed in the k-area, visually inspect the web k-area for cracks. (AISC 360 – Table N5.4-3)
19. Backing removed, weld tabs removed and finished, and fillet welds added where required	PERFORM	
20. Repair activities	PERFORM AND DOCUMENT	
21. Document acceptance or rejection of welded joint or member	PERFORM	

**END SECTION**

<sup>1</sup> **PERFORM:** Perform these tasks for each weld, fastener or bolted connection, and required verification.  
**DOCUMENT:** Document in a report that the work has been performed as required. This is in addition to all other required reports.

**STRUCTURAL - STEEL – BOLTING SECTION****ALL OR PORTIONS OF THIS SECTION ARE APPLICABLE IF BOX IS CHECKED: ☒**

STEEL INSPECTION TASKS PRIOR TO BOLTING – VERIFY THE FOLLOWING ARE IN COMPLIANCE 2018 IBC 1705.2.1, AISC 360-16: Table C-N5.6-1		
TASK	INSPECTION TYPE <sup>1</sup>	DESCRIPTION
1. Manufacture's certifications available for fastener materials	<b>PERFORM</b>	
2. Fasteners marked in accordance with ASTM requirements	OBSERVE	
3. Proper fasteners selected for joint detail (grade, type, bolt length if threads are to be excluded from shear plane)	OBSERVE	
4. Proper bolting procedure selected for joint detail	OBSERVE	
5. Connecting elements, including appropriate faying surface condition and hole preparation, if specified, meet applicable requirements	OBSERVE	
6. Proper storage provided for bolts, nuts, washers, and other fastener components	OBSERVE	
STEEL INSPECTION TASKS DURING BOLTING – VERIFY THE FOLLOWING ARE IN COMPLIANCE 2018 IBC 1705.2.1, AISC 360-16: Table C-N5.6-2		
TASK	INSPECTION TYPE <sup>1</sup>	DESCRIPTION
7. Fastener assemblies of suitable condition, placed in all holes and washers (if required) are positioned as required	OBSERVE	
8. Joint brought to the snug-tight condition prior to pretensioning operation	OBSERVE	
9. Fastener component not turned by the wrench prevented from rotating	OBSERVE	
10. Bolts are pretensioned in accordance with RCSC Specification, progressing systematically from the most rigid point toward the free edges	OBSERVE	
STEEL INSPECTION TASKS AFTER BOLTING – VERIFY THE FOLLOWING ARE IN COMPLIANCE IBC 1705.2.1, AISC 360-10: Table C-N5.6-3		
TASK	INSPECTION TYPE <sup>1</sup>	DESCRIPTION
11. Document acceptance or rejection of all bolted connections	<b>DOCUMENT</b>	

**END SECTION**

<sup>1</sup> **PERFORM:** Perform these tasks for each weld, fastener or bolted connection, and required verification.  
**OBSERVE:** Observe these items on a random sampling basis daily to insure that applicable requirements are met. Operations need not be delayed pending these inspections at contractor's risk.  
**DOCUMENT:** Document in a report that the work has been performed as required. This is in addition to all other required reports.

**STRUCTURAL - STEEL - NON DESTRUCTIVE TESTING SECTION****ALL OR PORTIONS OF THIS SECTION ARE APPLICABLE IF BOX IS CHECKED: ☒**

NONDESTRUCTIVE TESTING OF WELDED JOINTS – VERIFY THE FOLLOWING ARE IN COMPLIANCE 2018 IBC 1705.2.1, AISC 360-16: Section N5.5		
TASK	INSPECTION TYPE <sup>1</sup>	DESCRIPTION
1. Use of qualified nondestructive testing personnel	<b>PERFORM</b>	Visual weld inspection and nondestructive testing (NDT) shall be conducted by personnel qualified in accordance with AWS D1.8 clause 7.2
2. Welded joints subject to fatigue	OBSERVE	Dye penetrant testing (DT) and Ultrasonic testing (UT) shall be performed on 100% of welded joints identified on contract drawings as being subject to fatigue.
3. Weld tab removal sites	OBSERVE	At the end of welds where weld tabs have been removed, magnetic particle testing shall be performed on the same beam-to-column joints receiving UT

**END SECTION**

<sup>1</sup> **PERFORM:** Perform these tasks for each weld, fastener or bolted connection, and required verification.  
**OBSERVE:** Observe these items on a random sampling basis daily to insure that applicable requirements are met. Operations need not be delayed pending these inspections at contractor's risk.

**STRUCTURAL - STEEL – AISC 341 REQUIREMENTS (SEISMIC PROVISIONS) SECTION****ALL OR PORTIONS OF THIS SECTION ARE APPLICABLE IF BOX IS CHECKED: ☒**

NONDESTRUCTIVE TESTING OF WELDED JOINTS – VERIFY THE FOLLOWING ARE IN COMPLIANCE 2018 IBC 1705.2.1, AISC 341-16: Section J6.2		
TASK	INSPECTION TYPE <sup>1</sup>	DESCRIPTION
4. CJP groove welds	OBSERVE	Dye penetrant testing (DT) and ultrasonic testing (UT) shall be performed on 100% of CJP groove welds for materials greater than 5/16" thick (8mm).
5. Beam cope and access hole.	OBSERVE	At welded splices and connections, thermally cut surfaces of beam copes and access holes shall be tested using magnetic particle testing (MT) or dye penetrant testing (DT), when the flange thickness exceeds 1 1/2 in. for rolled shapes, or when the web thickness exceeds 1 1/2 in. for built-up shapes.
6. K-area NDT (AISC 341)	PERFORM	Where welding of doubler plates, continuity plates or stiffeners has been performed in the k-area, the web shall be tested for cracks using magnetic particle testing (MT). The MT inspection area shall include the k-area base metal within 3-inches of the weld. The MT shall be performed no sooner than 48 hours following completion of the welding.
7. Placement of reinforcing or contouring fillet welds	DOCUMENT	

**END SECTION**

<sup>1</sup> **PERFORM:** Perform these tasks for each weld, fastener or bolted connection, and required verification.  
**OBSERVE:** Observe these items on a random sampling basis daily to insure that applicable requirements are met. Operations need not be delayed pending these inspections at contractor's risk.  
**DOCUMENT:** Document in a report that the work has been performed as required. This is in addition to all other required reports.

**STRUCTURAL - STEEL - COMPOSITE CONSTRUCTION <sup>1</sup>****ALL OR PORTIONS OF THIS SECTION ARE APPLICABLE IF BOX IS CHECKED: ☐**

COMPOSITE CONSTRUCTION PRIOR TO PLACING CONCRETE – VERIFY THE FOLLOWING ARE IN COMPLIANCE 2018 IBC 1705.2.1, AISC 360-16: Table N6.1, AISC 341-16: Table J9.1		
TASK	INSPECTION TYPE <sup>2</sup>	DESCRIPTION
1. Placement and installation of steel headed stud anchors	<b>PERFORM</b>	
2. Material identification of reinforcing steel (Type/Grade)	OBSERVE	
3. Determination of carbon equivalent for reinforcing steel other than ASTM A706	OBSERVE	
4. Proper reinforcing steel size, spacing, clearances, support, and orientation	OBSERVE	
5. Reinforcing steel has not been re-bent in the field	OBSERVE	
6. Reinforcing clearances have been provided	OBSERVE	
7. Reinforcing steel has been tied and supported as required	OBSERVE	
8. Composite member has required size	OBSERVE	

**END SECTION****STRUCTURAL - STEEL - OTHER INSPECTIONS****ALL OR PORTIONS OF THIS SECTION ARE APPLICABLE IF BOX IS CHECKED: ☒**

OTHER STEEL INSPECTIONS – VERIFY THE FOLLOWING ARE IN COMPLIANCE 2018 IBC 1705.2.1, AISC 341-16: Tables J8.1 & J10.1		
TASK	INSPECTION TYPE <sup>2</sup>	DESCRIPTION
1. Anchor rods and other embedments supporting structural steel	<b>PERFORM</b>	Verify the diameter, grade, type, and length of the anchor rod or embedded item, and the extent or depth of embedment prior to placement of concrete.
2. Fabricated steel or erected steel frame	OBSERVE	Verify compliance with the details shown on the construction documents, such as braces, stiffeners, member locations and proper application of joint details at each connection.
3. Reduced beam sections (RBS) where/if occurs	<b>DOCUMENT</b>	✓ Contour and finish ✓ Dimensional tolerances
4. Protected zones	<b>DOCUMENT</b>	No holes or unapproved attachments made by fabricator or erector
5. H-piles where/if occurs	<b>DOCUMENT</b>	No holes or unapproved attachments made by the responsible contractor

**END SECTION**<sup>1</sup> See Concrete Construction Section for all concrete related inspection of composite steel construction.

<sup>2</sup> **PERFORM:** Perform these tasks for each weld, fastener or bolted connection, and required verification.  
**OBSERVE:** Observe these items on a random sampling basis daily to insure that applicable requirements are met. Operations need not be delayed pending these inspections at contractor's risk.  
**DOCUMENT:** Document in a report that the work has been performed as required. This is in addition to all other required reports.

**STRUCTURAL - COLD-FORMED METAL DECK - PLACEMENT SECTION****ALL OR PORTIONS OF THIS SECTION ARE APPLICABLE IF BOX IS CHECKED: ☒**

METAL DECK INSPECTION <u>PRIOR TO</u> DECK PLACEMENT – VERIFY THE FOLLOWING ARE IN COMPLIANCE SDI QA/QC-2011, Appendix 1, Table 1.1		
TASK	INSPECTION TYPE <sup>1</sup>	DESCRIPTION
1. Verify compliance of materials (deck and all deck accessories) with construction documents, including profiles, material properties, and base metal thickness	<b>PERFORM</b>	
2. Document acceptance or rejection of deck and deck accessories	<b>DOCUMENT</b>	
METAL DECK INSPECTION <u>DURING</u> DECK PLACEMENT – VERIFY THE FOLLOWING ARE IN COMPLIANCE SDI QA/QC-2011, Appendix 1, Table 1.2		
TASK	INSPECTION TYPE <sup>1</sup>	DESCRIPTION
3. Verify compliance of deck and all deck accessories installation with construction documents	<b>PERFORM</b>	
4. Verify deck materials are represented by the mill certifications that comply with the construction documents	<b>PERFORM</b>	
5. Document acceptance or rejection of installation of deck and deck accessories	<b>DOCUMENT</b>	
METAL DECK INSPECTION <u>AFTER</u> DECK PLACEMENT – VERIFY THE FOLLOWING ARE IN COMPLIANCE SDI QA/QC-2011, Appendix 1, Table 1.3		
TASK	INSPECTION TYPE <sup>1</sup>	DESCRIPTION
6. Welding procedure specification (WPS) available	<b>PERFORM</b>	
7. Manufacturers certifications for welding consumables available	OBSERVE	
8. Material identification (type/grade)	OBSERVE	
9. Check welding equipment	OBSERVE	

**END SECTION**

<sup>1</sup> **PERFORM:** Perform these tasks for each weld, fastener or bolted connection, and required verification.  
**OBSERVE:** Observe these items on a random sampling basis daily to insure that applicable requirements are met. Operations need not be delayed pending these inspections at contractor's risk.  
**DOCUMENT:** Document in a report that the work has been performed as required. This is in addition to all other required reports.



**STRUCTURAL - COLD-FORMED METAL DECK – WELDING SECTION****ALL OR PORTIONS OF THIS SECTION ARE APPLICABLE IF BOX IS CHECKED: ☒**

METAL DECK INSPECTION <u>DURING</u> WELDING – VERIFY THE FOLLOWING ARE IN COMPLIANCE SDI QA/QC-2011, Appendix 1, Table 1.4		
TASK	INSPECTION TYPE <sup>1</sup>	DESCRIPTION
1. Use of qualified welders	OBSERVE	
2. Control and handling of welding consumables	OBSERVE	
3. Environmental conditions (wind speed, moisture, temperature)	OBSERVE	
4. WPS followed	OBSERVE	
METAL DECK INSPECTION <u>AFTER</u> WELDING – VERIFY THE FOLLOWING ARE IN COMPLIANCE SDI QA/QC-2011, Appendix 1, Table 1.5		
TASK	INSPECTION TYPE <sup>1</sup>	DESCRIPTION
5. Verify size and location of welds, including support, sidelap, and perimeter welds.	<b>PERFORM</b>	
6. Welds meet visual acceptance criteria	<b>PERFORM</b>	
7. Verify repair activities	<b>PERFORM</b>	
8. Document acceptance or rejection of welds	<b>DOCUMENT</b>	

**END SECTION**

<sup>1</sup> **PERFORM:** Perform these tasks for each weld, fastener or bolted connection, and required verification.  
**OBSERVE:** Observe these items on a random sampling basis daily to insure that applicable requirements are met. Operations need not be delayed pending these inspections at contractor's risk.  
**DOCUMENT:** Document in a report that the work has been performed as required. This is in addition to all other required reports.

**STRUCTURAL - COLD-FORMED METAL DECK – FASTENING SECTION****ALL OR PORTIONS OF THIS SECTION ARE APPLICABLE IF BOX IS CHECKED: ☒**

METAL DECK INSPECTION BEFORE MECHANICAL FASTENING – VERIFY THE FOLLOWING ARE IN COMPLIANCE SDI QA/QC-2011, Appendix 1, Table 1.6		
TASK	INSPECTION TYPE <sup>1</sup>	DESCRIPTION
1. Manufacturer installation instructions available for mechanical fasteners	OBSERVE	
2. Proper tools available for fastener installation	OBSERVE	
METAL DECK INSPECTION DURING MECHANICAL FASTENING – VERIFY THE FOLLOWING ARE IN COMPLIANCE SDI QA/QC-2011, Appendix 1, Table 1.7		
TASK	INSPECTION TYPE <sup>1</sup>	DESCRIPTION
3. Fasteners are positioned as required	OBSERVE	
4. Fasteners are installed in accordance with manufacturer's instructions	OBSERVE	
METAL DECK INSPECTION AFTER MECHANICAL FASTENING – VERIFY THE FOLLOWING ARE IN COMPLIANCE SDI QA/QC-2011, Appendix 1, Table 1.8		
TASK	INSPECTION TYPE <sup>1</sup>	DESCRIPTION
5. Check spacing, type, and installation of support fasteners	<b>PERFORM</b>	
6. Check spacing, type, and installation of sidelap fasteners	<b>PERFORM</b>	
7. Check spacing, type, and installation of perimeter fasteners	<b>PERFORM</b>	
8. Verify repair activities	<b>PERFORM</b>	
9. Document acceptance or rejection of mechanical fasteners	<b>DOCUMENT</b>	

**END SECTION**

<sup>1</sup> **PERFORM:** Perform these tasks for each weld, fastener or bolted connection, and required verification.  
**OBSERVE:** Observe these items on a random sampling basis daily to insure that applicable requirements are met. Operations need not be delayed pending these inspections at contractor's risk.  
**DOCUMENT:** Document in a report that the work has been performed as required. This is in addition to all other required reports.

**STRUCTURAL - LIGHT GAUGE STEEL FRAMING AND/OR LIGHT GAUGE TRUSSES SECTION****ALL OR PORTIONS OF THIS SECTION ARE APPLICABLE IF BOX IS CHECKED: ☒**

LIGHT GAUGE STEEL CONSTRUCTION AND CONNECTIONS – VERIFY THE FOLLOWING ARE IN COMPLIANCE IBC 1705.2.2, 1705.11.2, 1705.11.3, UFC 4 023 03		
TASK	INSPECTION TYPE <sup>1</sup>	DESCRIPTION
1. Trusses spanning 60-feet or greater where/if applies	<b>PERFORM</b>	Verify that temporary and permanent truss restraint/bracing is installed in accordance with approved truss submittal package.
2. Welded connections (seismic and/or wind resisting system)	OBSERVE	Visually inspect all welds composing part of the main wind or seismic force resisting system, including shearwalls, braces, collectors (drag struts), and hold-downs.
3. Connections (seismic and/or wind resisting system)	OBSERVE	Visually inspect all screw attachment, bolting, anchoring and other fastening of components within the main wind or seismic force resisting system, including roof deck, roof framing, exterior wall covering, wall to roof/floor connections, braces, collectors (drag struts) and hold-downs.
4. Cold-formed steel (progressive collapse resisting system where/if applies)	OBSERVE	Verify proper welding operations, screw attachment, bolting, anchoring and other fastening of components within the progressive collapse resisting system, including horizontal tie force elements, vertical tie force elements and bridging elements (UFC 4 023 03).

**END SECTION****STRUCTURAL - OPEN-WEB STEEL JOISTS SECTION****ALL OR PORTIONS OF THIS SECTION ARE APPLICABLE IF BOX IS CHECKED: ☒**

OPEN-WEB STEEL JOISTS AND JOIST GIRDERS – VERIFY THE FOLLOWING ARE IN COMPLIANCE IBC TABLE 1705.2.3		
TASK	INSPECTION TYPE <sup>1</sup>	DESCRIPTION
1. Installation of open-web steel joists and joist girders	OBSERVE	<ul style="list-style-type: none"> <li>✓ End connections – welded or bolted</li> <li>✓ Bridging – horizontal and diagonal</li> </ul>

**END SECTION**

<sup>1</sup> **PERFORM:** Perform these tasks for each weld, fastener or bolted connection, and required verification.

**OBSERVE:** Observe these items on a random sampling basis daily to insure that applicable requirements are met. Operations need not be delayed pending these inspections at contractor's risk.

**STRUCTURAL - CONCRETE CONSTRUCTION SECTION****ALL OR PORTIONS OF THIS SECTION ARE APPLICABLE IF BOX IS CHECKED: ☒**

CONCRETE CONSTRUCTION, INCLUDING COMPOSITE DECK – VERIFY THE FOLLOWING ARE IN COMPLIANCE IBC TABLE 1705.3 (ACI 318 REFERENCES NOTED IN IBC TABLE)		
TASK	INSPECTION TYPE <sup>1</sup>	DESCRIPTION
1. Inspect reinforcement, including prestressing tendons, and verify placement.	OBSERVE	Verify prior to placing concrete that reinforcing is of specified type, grade and size; that it is free of oil, dirt and unacceptable rust; that it is located and spaced properly; that hooks, bends, ties, stirrups and supplemental reinforcement are placed correctly; that lap lengths, stagger and offsets are provided; and that all mechanical connections are installed per the manufacturer's instructions and/or evaluation report.
2. Reinforcing bar welding	OBSERVE	✓ Verify weldability of reinforcing bars other than ASTM A 706 ✓ Inspect single-pass fillet welds, maximum 5/16" in accordance with AWS D1.4
3. All other welding	<b>CONTINUOUS</b>	Visually inspect all welds in accordance with AWS D1.4
4. Cast in place anchors and post installed drilled anchors (downward inclined)	OBSERVE	Verify prior to placing concrete that cast in place anchors and post installed drilled anchors have proper embedment, spacing and edge distance.
5. Post-installed adhesive anchors in horizontal or upward inclined orientations	<b>CONTINUOUS AND DOCUMENT</b>	✓ Inspect as required per approved ICC-ES report ✓ Verify that installer is certified for installation of horizontal and overhead installation applications ✓ Inspect proof loading as required by the contract documents (IBC Table 1705.3, 4)
6. Verify use of required mix design	OBSERVE	Verify that all mixes used comply with the approved construction documents (IBC Table 1705.3, 5)
7. Prior to concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete	<b>CONTINUOUS</b>	At the time fresh concrete is sampled to fabricate specimens for strength test verify these tests are performed by qualified technicians.
8. Inspect concrete and/or shotcrete placement for proper application techniques	<b>CONTINUOUS</b>	Verify proper application techniques are used during concrete conveyance and depositing avoids segregation or contamination. Verify that concrete is properly consolidated.
9. Verify maintenance of specified curing temperature and technique	OBSERVE	Inspect curing, cold weather protection, and hot weather protection procedures.
10. Pre-stressed concrete	<b>CONTINUOUS</b>	Verify application of prestressing forces and grouting of bonded prestressing tendons.

**CONTINUED ON FOLLOWING PAGE**

<sup>1</sup> **OBSERVE:** Observe these items on a random sampling basis daily to insure that applicable requirements are met. Operations need not be delayed pending these inspections at contractor's risk.

**DOCUMENT:** Document in a report that the work has been performed as required. This is in addition to all other required reports.

**CONTINUOUS:** Constant monitoring of identified tasks by a special inspector over the duration of performance of said tasks.

**STRUCTURAL - CONCRETE CONSTRUCTION (CONTINUED)**

CONCRETE CONSTRUCTION, INCLUDING COMPOSITE DECK – VERIFY THE FOLLOWING ARE IN COMPLIANCE IBC TABLE 1705.3 (ACI 318 REFERENCES NOTED IN IBC TABLE)		
TASK	INSPECTION TYPE <sup>1</sup>	DESCRIPTION
11. Inspect erection of precast concrete members	OBSERVE	
12. Verify in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to removal of shores and forms from beams and structural slabs.	OBSERVE	
13. Inspect formwork for shape, location and dimensions of the concrete member being formed.	OBSERVE	

**END SECTION**


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<sup>1</sup> **OBSERVE:** Observe these items on a random sampling basis daily to insure that applicable requirements are met. Operations need not be delayed pending these inspections at contractor's risk.

**DOCUMENT:** Document in a report that the work has been performed as required. This is in addition to all other required reports.

**CONTINUOUS:** Constant monitoring of identified tasks by a special inspector over the duration of performance of said tasks.

**STRUCTURAL - MASONRY CONSTRUCTION SECTION (ALL RISK CATEGORIES)****ALL OR PORTIONS OF THIS SECTION ARE APPLICABLE IF BOX IS CHECKED: ☒**

MASONRY CONSTRUCTION – VERIFY THE FOLLOWING ARE IN COMPLIANCE <u>AT START</u> OF CONSTRUCTION IBC 1705.4 (ACI 530-13 TABLE 3.1.2 & 3.1.3)		
TASK	INSPECTION TYPE <sup>1</sup>	DESCRIPTION
1. Compliance with approved submittals prior to start	OBSERVE	
2. Proportions of site-mixed mortar.	OBSERVE	
3. Grade and type of reinforcement, anchor bolts, and prestressing tendons and anchorages	OBSERVE	
4. Prestressing technique	OBSERVE	
5. Properties of thin bed mortar for AAC masonry	OBSERVE	
MASONRY CONSTRUCTION – VERIFY THE FOLLOWING ARE IN COMPLIANCE <u>PRIOR TO</u> GROUTING IBC 1705.4 (ACI 530-13 TABLE 3.1.2 & 3.1.3)		
TASK	INSPECTION TYPE <sup>1</sup>	DESCRIPTION
6. Grout space	OBSERVE	
7. Proportions of site-prepared grout and prestressing grout for bonded tendons	OBSERVE	
8. Proportions of site-mixed grout and prestressing grout for bonded tendons	OBSERVE	
9. Placement of masonry units and mortar joints	OBSERVE	
10. Welding of reinforcement	<b>CONTINUOUS</b>	
MASONRY CONSTRUCTION – VERIFY THE FOLLOWING ARE IN COMPLIANCE <u>DURING</u> CONSTRUCTION IBC 1705.4 (ACI 530-13 TABLE 3.1.2 & 3.1.3)		
TASK	INSPECTION TYPE <sup>1</sup>	DESCRIPTION
11. Size and location of structural elements is in compliance	OBSERVE	
12. Preparation, construction, and protection of masonry during cold weather (temperature below 40°F (4.4°C) or hot weather (temp above 90°F (32.2°C))	OBSERVE	
13. Application and measurement of prestressing force	<b>CONTINUOUS</b>	
14. Placement of grout and prestressing grout for bonded tendons	<b>CONTINUOUS</b>	
15. Placement of AAC masonry units and construction of thin bed mortar joints	<b>CONTINUOUS</b>	Continuous for first 5000 square feet only (465 square meters).
16. Observe preparation of grout specimens, mortar specimens, and/or prisms	OBSERVE	
17. Type, size and placement of reinforcement, connectors, anchor bolts and prestressing tendons and anchorages, including details of anchorage of masonry to structural members, frames, or other construction	OBSERVE	

**END SECTION**

<sup>1</sup> **OBSERVE:** Observe these items on a random sampling basis daily to insure that applicable requirements are met. Operations need not be delayed pending these inspections at contractor's risk.

**CONTINUOUS:** Constant monitoring of identified tasks by a special inspector over the duration of performance of said tasks.

**STRUCTURAL - WOOD CONSTRUCTION – SPECIALTY ITEMS SECTION****ALL OR PORTIONS OF THIS SECTION ARE APPLICABLE IF BOX IS CHECKED:** ☐

WOOD CONSTRUCTION – VERIFY THE FOLLOWING ARE IN COMPLIANCE IBC 1705.5		
TASK	INSPECTION TYPE <sup>1</sup>	DESCRIPTION
1. High-load diaphragms where applicable	OBSERVE	Verify thickness and grade of sheathing, size of framing members at panel edges, nail diameters and length, and the number of fastener lines and that fastener spacing is per approved contract documents.
2. Metal-plate connected wood trusses spanning 60 feet or greater	OBSERVE	Verify that the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing are installed in accordance with the approved truss submittal package

**END SECTION****STRUCTURAL - WOOD CONSTRUCTION - SEISMIC & WIND SECTION****THIS SECTION IS APPLICABLE IF BOX IS CHECKED:** ☐

WOOD CONSTRUCTION SEISMIC AND WIND – VERIFY THE FOLLOWING ARE IN COMPLIANCE 2018 IBC 1705.11 & 1705.12.2		
TASK	INSPECTION TYPE <sup>1</sup>	DESCRIPTION
1. Nailing, bolting, anchoring and other fastening of elements of the main wind/seismic force-resisting system	OBSERVE (CONTINUOUS FOR GLUING)	Includes connectors for: shearwall sheathing, roof/floor sheathing, drag struts/collectors (double top plates), braces, hold downs, roof connections to exterior walls.

**END SECTION****STRUCTURAL – ISOLATION AND ENERGY DISSIPATION SYSTEMS SECTION****ALL OR PORTIONS OF THIS SECTION ARE APPLICABLE IF BOX IS CHECKED:** ☐

ISOLATION AND ENERGY DISSIPATION SYSTEMS – VERIFY THE FOLLOWING ARE IN COMPLIANCE 2018 IBC TABLE 1705.12.8		
TASK	INSPECTION TYPE <sup>1</sup>	DESCRIPTION
1. Fabrication and installation	OBSERVE	Verify that fabrication and installation of isolator units and energy dissipation devices conform to manufacturer's recommendations and approved construction documents
2. Testing of seismic isolation Systems in seismically isolated structures		Seismic Isolation Systems in seismically isolated structures shall be tested accordance with ASCE 7, Section 17.8

**END SECTION**

<sup>1</sup> **OBSERVE:** Observe these items on a random sampling basis daily to insure that applicable requirements are met. Operations need not be delayed pending these inspections at contractor's risk.

**GEOTECHNICAL - SOILS INSPECTION SECTION****ALL OR PORTIONS OF THIS SECTION ARE APPLICABLE IF BOX IS CHECKED: ☒**

SOILS INSPECTION – VERIFY THE FOLLOWING ARE IN COMPLIANCE IBC 1705.6		
TASK	INSPECTION TYPE <sup>1</sup>	DESCRIPTION
1. Materials below shallow foundations are adequate to achieve the design bearing capacity.	OBSERVE	
2. Excavations are extended to proper depth and have reached proper material	OBSERVE	
3. Perform classification and testing of compacted fill materials	<b>OBSERVE</b>	
4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill	<b>CONTINUOUS</b>	
5. Prior to placement of compacted fill, inspect subgrade and verify that site has been prepared properly.	OBSERVE	During fill placement, the special inspector shall verify that proper materials and procedures are used in accordance with the provisions of the approved geotechnical report

**END SECTION****GEOTECHNICAL - DRIVEN DEEP FOUNDATION ELEMENTS SECTION****ALL OR PORTIONS OF THIS SECTION ARE APPLICABLE IF BOX IS CHECKED: ☐**

DEEP DRIVEN FOUNDATION CONSTRUCTION – VERIFY THE FOLLOWING ARE IN COMPLIANCE IBC 1705.7		
TASK	INSPECTION TYPE <sup>1</sup>	DESCRIPTION
1. Verify element materials, sizes and lengths comply with requirements	<b>CONTINUOUS</b>	
2. Inspect driving operations and maintain complete and accurate records for each element	<b>CONTINUOUS</b>	
3. Verify placement locations and plumbness, confirm type and size of hammer, record number of blows per foot of penetration, determine required penetrations to achieve design capacity, record tip and butt elevations and document any damage to foundation element	<b>CONTINUOUS</b>	
4. Determine capacities of test elements and conduct additional load tests if required.	<b>CONTINUOUS</b>	
5. For steel or concrete elements, perform additional special inspections in accordance with the Steel and Concrete sections in this schedule		

**END SECTION**

<sup>1</sup> **OBSERVE:** Observe these items on a random sampling basis daily to insure that applicable requirements are met. Operations need not be delayed pending these inspections at contractor's risk.

**CONTINUOUS:** Constant monitoring of identified tasks by a special inspector over the duration of performance of said tasks.



**GEOTECHNICAL - HELICAL PILE FOUNDATIONS SECTION****ALL OR PORTIONS OF THIS SECTION ARE APPLICABLE IF BOX IS CHECKED:** ☐

HELICAL PILE FOUNDATIONS – VERIFY THE FOLLOWING ARE IN COMPLIANCE 2018 IBC 1705.9		
TASK	INSPECTION TYPE <sup>1</sup>	DESCRIPTION
1. Record installation equipment used, pile dimensions, tip elevations, final depth, final installation torque and other pertinent installation data as required. The approved geotechnical report and the contract documents shall be used to determine compliance	<b>CONTINUOUS</b>	

**END SECTION****GEOTECHNICAL - CAST IN PLACE DEEP FOUNDATION ELEMENTS SECTION****ALL OR PORTIONS OF THIS SECTION ARE APPLICABLE IF BOX IS CHECKED:** ☐

CAST IN PLACE DEEP FOUNDATION ELEMENTS – VERIFY THE FOLLOWING ARE IN COMPLIANCE 2018 IBC 1705.8		
TASK	INSPECTION TYPE <sup>1</sup>	DESCRIPTION
1. Inspect drilling operations and maintain complete and accurate records for each element.	<b>CONTINUOUS</b>	
2. Verify placement locations and plumbness, confirm element diameters, bell diameters (if applicable), lengths, embedment into bedrock (if applicable) and adequate end-bearing strata capacity. Record concrete or grout volumes	<b>CONTINUOUS</b>	For concrete elements, perform additional special inspections in accordance with the Concrete section in this schedule

**END SECTION**

<sup>1</sup> **CONTINUOUS:** Constant monitoring of identified tasks by a special inspector over the duration of performance of said tasks.

**FIRE PROTECTION - SPRAYED FIRE-RESISTANT MATERIALS SECTION****ALL OR PORTIONS OF THIS SECTION ARE APPLICABLE IF BOX IS CHECKED: ☒**

SPRAYED FIRE RESISTANT MATERIALS (SFRM) – VERIFY THE FOLLOWING ARE IN COMPLIANCE 2018 IBC 1705.14		
TASK	INSPECTION TYPE <sup>1</sup>	DESCRIPTION
1. Substrate condition	OBSERVE	Prior to application, confirm that surfaces have been prepared according to the approved fire-resistance design and manufacturer's instructions.
2. Material thickness	OBSERVE	Verify SFRM thickness according to 2018 IBC 1705.14.4
3. Material density	OBSERVE	Verify SFRM density according to 2018 IBC 1705.14.5
4. Bond strength	OBSERVE	Verify bond strength of cured SFRM according to IBC 1705.14.6

**END SECTION****FIRE PROTECTION - MASTIC AND INTUMESCENT COATINGS SECTION****ALL OR PORTIONS OF THIS SECTION ARE APPLICABLE IF BOX IS CHECKED: ☒**

MASTIC AND INTUMESCENT FIRE-RESISTANT COATINGS – VERIFY THE FOLLOWING ARE IN COMPLIANCE 2018 IBC 1705.15		
TASK	INSPECTION TYPE <sup>1</sup>	DESCRIPTION
1. Inspect according to AWCI 12-B and the contract documents	OBSERVE	Inspections shall be performed in accordance with AWCI 12-B, Standard Practice for the Testing and Inspection of Field Applied Thin Film Intumescent Fire-Resistive Materials.

**END SECTION****FIRE PROTECTION – FIRE RESISTANT PENETRATIONS AND JOINTS SECTION****ALL OR PORTIONS OF THIS SECTION ARE APPLICABLE IF BOX IS CHECKED: ☒**

FIRE RESISTANT PENETRATIONS AND JOINTS – VERIFY THE FOLLOWING ARE IN COMPLIANCE 2018 IBC 1705.17		
TASK	INSPECTION TYPE <sup>1</sup>	DESCRIPTION
1. Inspections of penetration firestop systems conducted in accordance with ASTM E 2174.	OBSERVE	
2. Inspections of fire-resistant joint systems conducted in accordance with ASTM E 2393	OBSERVE	

**END SECTION**

<sup>1</sup> **OBSERVE:** Observe these items on a random sampling basis daily to insure that applicable requirements are met. Operations need not be delayed pending these inspections at contractor's risk.

**FIRE PROTECTION – SMOKE CONTROL SECTION****ALL OR PORTIONS OF THIS SECTION ARE APPLICABLE IF BOX IS CHECKED: ☒****SMOKE CONTROL – VERIFY THE FOLLOWING ARE IN COMPLIANCE  
2018 IBC 1705.18**

TASK	INSPECTION TYPE <sup>1</sup>	DESCRIPTION
1. Verify device locations and perform leakage testing	OBSERVE	Perform during erection of ductwork and prior to concealment
2. Pressure difference testing, flow measurements and detection and control verification	OBSERVE	Perform prior to occupancy and after sufficient completion

**END SECTION**

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<sup>1</sup> **OBSERVE:** Observe these items on a random sampling basis daily to insure that applicable requirements are met. Operations need not be delayed pending these inspections at contractor's risk.

**ARCHITECTURAL - EXTERIOR INSULATION AND FINISH SYSTEMS SECTION****ALL OR PORTIONS OF THIS SECTION ARE APPLICABLE IF BOX IS CHECKED: ☒**

EXTERIOR INSULATION AND FINISH SYSTEMS (EIFS) – VERIFY THE FOLLOWING ARE IN COMPLIANCE 2018 IBC 1705.16		
TASK	INSPECTION TYPE <sup>1</sup>	DESCRIPTION
1. Water resistive barrier coating applied over a sheathing substrate.	OBSERVE	Verify that water resistive barrier coating complies with ASTM E 2570.

**END SECTION****ARCHITECTURAL – ARCHITECTURAL COMPONENTS****ALL OR PORTIONS OF THIS SECTION ARE APPLICABLE IF BOX IS CHECKED: ☒**

ARCHITECTURAL COMPONENTS – VERIFY THE FOLLOWING ARE IN COMPLIANCE 2018 IBC 1705.12.5, 1705.12.7		
TASK	INSPECTION TYPE <sup>1</sup>	DESCRIPTION
1. Erection and fastening of exterior cladding and interior and exterior veneer.	OBSERVE	Verify appropriate materials, fasteners and attachment at commencement of work and at completion. <b>Inspector Note: Inspection not required if height is less than 30 feet or weight is less than 5psf</b>
2. Interior and exterior non-load bearing walls	OBSERVE	Verify appropriate materials, fasteners and attachment at commencement of work and at completion. <b>Inspector Note: Inspection not required if interior non-load bearing walls weigh less than 15psf</b>
3. Access floors	OBSERVE	Verify that anchorage complies with approved construction documents.
4. Storage racks	OBSERVE	Verify that anchorage complies with approved construction documents. Inspection of post-installed anchors shall comply with approved ICC-ES report. <b>Inspector Note: Not required for racks less than 8 feet in height</b>

**END SECTION**

<sup>1</sup> **OBSERVE:** Observe these items on a random sampling basis daily to insure that applicable requirements are met. Operations need not be delayed pending these inspections at contractor's risk.

**PLUMBING/MECHANICAL/ELECTRICAL DESIGNATED SEISMIC SYSTEMS SECTION****ALL OR PORTIONS OF THIS SECTION ARE APPLICABLE IF BOX IS CHECKED: ☒**

PLUMBING, MECHANICAL AND ELECTRICAL IBC 1705.12.6		
TASK	INSPECTION TYPE <sup>1</sup>	DESCRIPTION
1. Anchorage of electrical equipment for emergency and standby power systems	OBSERVE	✓ Check for general conformance
2. Anchorage of all other electrical equipment in Seismic Design Categories E and F only (See first page of this schedule for Seismic Design Category)	OBSERVE	✓ Check for general conformance
3. Installation and anchorage of piping designed to carry hazardous materials and their associated mechanical units.	OBSERVE	✓ Check for general conformance
4. Installation and anchorage of vibration isolation systems where the construction documents require a nominal clearance of ¼" or less between support framing and restraint.	OBSERVE	✓ Check for general conformance
5. Verification of clearance between fire sprinkler piping and surrounding mechanical and electrical equipment, including ductwork, piping and their structural supports.	OBSERVE	✓ Check for minimum clearances noted in ASCE7 13.2.3 or a nominal clearance of not less than 3 inches

**END SECTION**

<sup>1</sup> **OBSERVE:** Observe these items on a random sampling basis daily to insure that applicable requirements are met. Operations need not be delayed pending these inspections at contractor's risk.

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SECTION 01 50 00

TEMPORARY CONSTRUCTION FACILITIES AND CONTROLS

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 WATER WORKS ASSOCIATION (AWWA)

AWWA C511 (2017) Reduced-Pressure Principle Backflow Prevention Assembly

FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH (FCCCHR)

FCCCHR List (continuously updated) List of Approved Backflow Prevention Assemblies

FCCCHR Manual (10th Edition) Manual of Cross-Connection Control

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 241 (2019) Standard for Safeguarding Construction, Alteration, and Demolition Operations

NFPA 70 (2020; ERTA 20-1 2020; ERTA 20-2 2020; TIA 20-1; TIA 20-2; TIA 20-3; TIA 20-4) National Electrical Code

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1 (2014) Safety and Health Requirements Manual

U.S. FEDERAL AVIATION ADMINISTRATION (FAA)

FAA AC 70/7460-1 (2015; Rev L) Obstruction Marking and Lighting

U.S. FEDERAL HIGHWAY ADMINISTRATION (FHWA)

MUTCD (2019) Manual on Uniform Traffic Control Devices

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 that will review the submittal for the Government. Submittals with an "S"

are for inclusion in the Sustainability eNotebook, in conformance to Section 01 33 29 SUSTAINABILITY REPORTING. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Construction Site Plan; G

Traffic Control Plan; G

Haul Road Plan; G

SD-06 Test Reports

Backflow Preventer Tests

SD-07 Certificates

Backflow Tester Certification

Backflow Preventers Certificate of Full Approval

1.3 CONSTRUCTION SITE PLAN

Prior to the start of work, submit a site plan showing the locations and dimensions of temporary facilities (including layouts and details, equipment and material storage area (onsite and offsite), and access and haul routes, avenues of ingress/egress to the fenced area and details of the fence installation. Identify any areas which may have to be graveled to prevent the tracking of mud. Indicate if the use of a supplemental or other staging area is desired. Show locations of safety and construction fences, site trailers, construction entrances, trash dumpsters, temporary sanitary facilities, and worker parking areas.

1.4 BACKFLOW PREVENTERS CERTIFICATE

Certificate of Full Approval from FCCCHR List, University of Southern California, attesting that the design, size and make of each backflow preventer has satisfactorily passed the complete sequence of performance testing and evaluation for the respective level of approval. Certificate of Provisional Approval will not be acceptable.

1.4.1 Backflow Tester Certificate

Prior to testing, submit to the Contracting Officer certification issued by the State or local regulatory agency attesting that the backflow tester has successfully completed a certification course sponsored by the regulatory agency. Tester must not be affiliated with any company participating in any other phase of this Contract.

1.4.2 Backflow Prevention Training Certificate

Submit a certificate recognized by the State or local authority that states the Contractor has completed at least 10 hours of training in backflow preventer installations. The certificate must be current.

1.5 DOD CONDITION OF READINESS (COR)

DOD will set the Condition of Readiness (COR) based on the weather



forecast for sustained winds 50 knots (60mph or 95 km/hr) or greater.  
Contact the Contracting Officer for the current COR setting.

Monitor weather conditions a minimum of twice a day and take appropriate actions according to the approved Emergency Plan in the accepted Accident Prevention Plan, EM-385-1-1 Section 01 Emergency Planning and the instructions below.

Unless otherwise directed by the Contracting Officer, comply with:

- a. Condition FOUR (Sustained winds of 50 knots or greater expected within 72 hours): Normal daily jobsite cleanup and good housekeeping practices. Collect and store in piles or containers scrap lumber, waste material, and rubbish for removal and disposal at the close of each work day. Maintain the construction site including storage areas, free of accumulation of debris. Stack form lumber in neat piles less than 4 feet high. Remove all debris, trash, or objects that could become missile hazards.
- b. Condition THREE (Sustained winds of 50 knots or greater expected within 48 hours): Maintain "Condition FOUR" requirements and commence securing operations necessary for "Condition ONE" which cannot be completed within 18 hours. Cease all routine activities which might interfere with securing operations. Commence securing and stow all gear and portable equipment. Make preparations for securing buildings. Review requirements pertaining to "Condition TWO" and continue action as necessary to attain "Condition THREE" readiness.
- c. Condition TWO (Sustained winds of 50 knots or greater expected within 24 hours): Curtail or cease routine activities until securing operation is complete. Reinforce or remove form work and scaffolding. Secure machinery, tools, equipment, materials, or remove from the jobsite. Expend every effort to clear all missile hazards and loose equipment from general base areas.
- d. Condition ONE. (Sustained winds of 50 knots or greater expected within 12 hours): Secure the jobsite and leave Government premises.

## PART 2 PRODUCTS

### 2.1 TEMPORARY SIGNAGE

#### 2.1.1 Bulletin Board

Within 14 calendar days of mobilization on site and prior to the commencement of work activities, provide a clear weatherproof covered bulletin board not less than 36 by 48 inches in size for displaying the Equal Employment Opportunity poster, a copy of the wage decision contained in the contract, Wage Rate Information poster, Safety and Health Information as required by EM 385-1-1 Section 01 and other information approved by the Contracting Officer. Coordinate requirements herein with 01 35 26 GOVERNMENTAL SAFETY REQUIREMENTS.

#### 2.1.2 Project Identification Signs

The requirements for the signs, their content, and location are as specified in Section 01 58 00 PROJECT IDENTIFICATION. Erect signs within 15 days after receipt of the notice to proceed. Correct the data required by the safety sign daily, with light colored metallic or non-metallic

numerals.

### 2.1.3 Warning Signs

Post temporary signs, tags, and labels to give workers and the public adequate warning and caution of construction hazards according to the EM 385-1-1 Section 04. Attach signs to the perimeter fencing every 150 feet warning the public of the presence of construction hazards. Signs must require unauthorized persons to keep out of the construction site. Correct the data required by safety signs daily.

## 2.2 TEMPORARY TRAFFIC CONTROL

### 2.2.1 Haul Roads

Construct access and haul roads necessary for proper prosecution of the work under this contract in accordance with EM 385-1-1 Section 04. Construct with suitable grades and widths; sharp curves, blind corners, and dangerous cross traffic are to be avoided. Submit haul road plan for approval. Provide necessary lighting, signs, barricades, and distinctive markings for the safe movement of traffic. The method of dust control, although optional, must be adequate to ensure safe operation at all times. Location, grade, width, and alignment of construction and hauling roads are subject to approval by the Contracting Officer. Lighting must be adequate to assure full and clear visibility for full width of haul road and work areas during any night work operations.

### 2.2.2 Barricades

Erect and maintain temporary barricades to limit public access to hazardous areas. Whenever safe public access to paved areas such as roads, parking areas or sidewalks is prevented by construction activities or as otherwise necessary to ensure the safety of both pedestrian and vehicular traffic barricades will be required. Securely place barricades clearly visible with adequate illumination to provide sufficient visual warning of the hazard during both day and night.

## 2.3 FENCING

Provide fencing along the construction site and at all open excavations and tunnels to control access by unauthorized personnel. Safety fencing must be highly visible to be seen by pedestrians and vehicular traffic. Specific fencing requirements are as described herein. All fencing will meet the requirements of EM 385-1-1.

### 2.3.1 Polyethylene Mesh Safety Fencing

Temporary safety fencing must be a high visibility orange colored, high density polyethylene grid, a minimum of 48 inches high and maximum mesh size of 2 inches. Fencing must extend from the grade to a minimum of 48 inches above the grade and be tightly secured to T-posts spaced as necessary to maintain a rigid and taut fence. Fencing must remain rigid and taut with a minimum of 200 pounds of force exerted on it from any direction with less than 4 inches of deflection.

### 2.3.2 Chain Link Panel Fencing

Temporary panel fencing must be galvanized steel chain link panels 6 feet high. Multiple fencing panels may be linked together at the bases to form

long spans as needed. Each panel base must be weighted down using sand bags or other suitable materials in order for the fencing to withstand anticipated winds while remaining upright. Fencing must remain rigid and taut with a minimum of 200 pounds of force exerted on it from any direction with less than 4 inches of deflection.

#### 2.3.3 Post-Driven Chain Link Fencing

Temporary post-driven fencing must be galvanized chain link fencing 6 feet high supported by an tightly secured to galvanized steel posts driven below grade. Fence posts must be located on minimum 10-foot centers. Posts may be set in various surfaces such as sand, soil, asphalt, or concrete as necessary. Chain link fencing must remain rigid and taut with a minimum of 200 pounds of force exerted on it from any direction with less than 4 inches of deflection. Fencing and posts must be completely removed at the completion of construction and any surfaces disturbed or damaged must be restored to its original condition. Underground utilities must be located and identified prior to setting fence posts. Fence must be equipped with a lockable gate. Gate must remain locked when construction personnel are not present.

#### 2.4 TEMPORARY WIRING

Provide temporary wiring in accordance with [EM 385-1-1](#) Section 11, [NFPA 241](#) and [NFPA 70](#). Include monthly inspection and testing of all equipment and apparatus.

#### 2.5 BACKFLOW PREVENTERS

Reduced pressure principle type conforming to the applicable requirements [AWWA C511](#). Provide backflow preventers complete with [150-pound](#) flanged cast iron, bronze mounted gate valve and strainer, 304 stainless steel or bronze, internal parts. The particular make, model/design, and size of backflow preventers to be installed must be included in the latest edition of the List of Approved Backflow Prevention Assemblies issued by the [FCCCHR List](#) and be accompanied by a Certificate of Full Approval from [FCCCHR List](#). After installation conduct [Backflow Preventer Tests](#) and provide test reports verifying that the installation meets the [FCCCHR Manual](#) Standards.

### PART 3 EXECUTION

#### 3.1 EMPLOYEE PARKING

Construction contract employees will park privately owned vehicles in an area designated by the Contracting Officer. This area will be within reasonable walking distance of the construction site. Employee parking must not interfere with existing and established parking requirements of the government installation.

#### 3.2 TEMPORARY BULLETIN BOARD

Locate the bulletin board at the project site in a conspicuous place easily accessible to all employees, as approved by the Contracting Officer.

### 3.3 AVAILABILITY AND USE OF UTILITY SERVICES

#### 3.3.1 Temporary Utilities

Provide temporary utilities required for construction. Materials may be new or used, must be adequate for the required usage, not create unsafe conditions, and not violate applicable codes and standards.

#### 3.3.2 Payment for Utility Services

- a. The Government will make all reasonably required utilities available from existing outlets and supplies, as specified in the contract. Unless otherwise provided in the contract, the amount of each utility service consumed will be charged to or paid at prevailing rates charged to the Government or, where the utility is produced by the Government, at reasonable rates determined by the Contracting Officer. Carefully conserve any utilities furnished without charge.
- b. Reasonable amounts of the following utilities will be made available at the prevailing rates.
- c. The point at which the Government will deliver such utilities or services and the quantity available is as indicated. Pay all costs incurred in connecting, converting, and transferring the utilities to the work. Make connections, including providing backflow-preventing devices on connections to domestic water lines; providing meters; and providing transformers; and make disconnections.

#### 3.3.3 Meters and Temporary Connections

Provide and maintain necessary temporary connections, distribution lines, and meter bases (Government will provide meters) required to measure the amount of each utility used for the purpose of determining charges. Notify the Contracting Officer, in writing, 5 working days before final electrical connection is desired so that a utilities contract can be established. The Government will provide a meter and make the final hot connection after inspection and approval of the Contractor's temporary wiring installation. Do not make the final electrical connection.

#### 3.3.4 Advance Deposit

An advance deposit for utilities consisting of an estimated month's usage or a minimum of \$50.00 will be required. The last monthly bills for the fiscal year will normally be offset by the deposit and adjustments will be billed or returned as appropriate. Services to be rendered for the next fiscal year, beginning 1 October, will require a new deposit. Notification of the due date for this deposit will be mailed prior to the end of the current fiscal year.

#### 3.3.5 Final Meter Reading

Before completion of the work and final acceptance of the work by the Government, notify the Contracting Officer, in writing, 5 working days before termination is desired. The Government will take a final meter reading, disconnect service, and remove the meters. Then remove all the temporary distribution lines, meter bases, and associated paraphernalia. Pay all outstanding utility bills before final acceptance of the work by the Government.

### 3.3.6 Sanitation

Provide and maintain within the construction area minimum field-type sanitary facilities approved by the Contracting Officer and periodically empty wastes into a municipal, district, or station sanitary sewage system, or remove waste to a commercial facility. Obtain approval from the system owner prior to discharge into any municipal, district, or commercial sanitary sewer system. Any penalties or fines associated with improper discharge will be the responsibility of the Contractor. Coordinate with the Contracting Officer and follow station regulations and procedures when discharging into the station sanitary sewer system. Maintain these conveniences at all times. Include provisions for pest control and elimination of odors. Government toilet facilities will not be available to Contractor's personnel.

### 3.3.7 Telephone

Make arrangements and pay all costs for telephone facilities desired.

### 3.3.8 Obstruction Lighting of Cranes

Provide a minimum of 2 aviation red or high intensity white obstruction lights on temporary structures (including cranes) over 100 feet above ground level. Light construction and installation must comply with [FAA AC 70/7460-1](#). Lights must be operational during periods of reduced visibility, darkness, and as directed by the Contracting Officer.

### 3.3.9 Fire Protection

Provide temporary fire protection equipment for the protection of personnel and property during construction. Remove debris and flammable materials daily to minimize potential hazards.

## 3.4 TRAFFIC PROVISIONS

### 3.4.1 Maintenance of Traffic

- a. Conduct operations in a manner that will not close any thoroughfare or interfere in any way with traffic on railways or highways except with written permission of the Contracting Officer at least 15 calendar days prior to the proposed modification date and provide a [Traffic Control Plan](#) detailing the proposed controls to traffic movement for approval. The plan must be in accordance with State and local regulations and the [MUTCD](#), Part VI. Contractor may move oversized and slow-moving vehicles to the worksite provided requirements of the highway authority have been met.
- b. Conduct work so as to minimize obstruction of traffic and maintain traffic on at least half of the roadway width at all times. Obtain approval from the Contracting Officer prior to starting any activity that will obstruct traffic.
- c. Provide, erect, and maintain, at Contractor's expense, lights, barriers, signals, passageways, detours, and other items, that may be required by the Life Safety Signage, overhead protection authority having jurisdiction.

#### 3.4.2 Protection of Traffic

Maintain and protect traffic on all affected roads during the construction period except as otherwise specifically directed by the Contracting Officer. Measures for the protection and diversion of traffic, including the provision of watchmen and flagmen, erection of barricades, placing of lights around and in front of equipment the work, and the erection and maintenance of adequate warning, danger, and direction signs, will be as required by the State and local authorities having jurisdiction. Protect the traveling public from damage to person and property. Minimize the interference with public traffic on roads selected for hauling material to and from the site. Investigate the adequacy of existing roads and their allowable load limit. Contractor is responsible for the repair of any damage to roads caused by construction operations.

#### 3.4.3 Rush Hour Restrictions

Do not interfere with the peak traffic flows preceding and during normal operations without notification to and approval by the Contracting Officer.

#### 3.4.4 Dust Control

Dust control methods and procedures must be approved by the Contracting Officer. Coordinate dust control methods with 01 57 19 TEMPORARY ENVIRONMENTAL CONTROLS.

### 3.5 CONTRACTOR'S TEMPORARY FACILITIES

Contractor-owned or -leased trailers must be identified by Government assigned numbers. Apply the number to the trailer within 14 calendar days of notification, or sooner, if directed by the Government. Temporary facilities will meet requirements as identified in EM 385-1-1 Section 04.

#### 3.5.1 Safety Systems

Protect the integrity of any installed safety systems or personnel safety devices. Obtain prior approval from Contracting Officer if entrance into systems serving safety devices is required. If it is temporarily necessary to remove or disable personnel safety devices in order to accomplish contract requirements, provide alternative means of protection prior to removing or disabling any permanently installed safety devices or equipment and obtain approval from the Contracting Officer.

#### 3.5.2 Administrative Field Offices

Provide and maintain administrative field office facilities within the construction area at the designated site. Government office and warehouse facilities will not be available to the Contractor's personnel.

#### 3.5.3 Storage Area

Construct a temporary 6-foot high chain link fence around trailers and materials. Include plastic strip inserts, colored green, so that visibility through the fence is obstructed. Fence posts may be driven, in lieu of concrete bases, where soil conditions permit. Do not place or store trailers, materials, or equipment outside the fenced area unless such trailers, materials, or equipment are assigned a separate and distinct storage area by the Contracting Officer away from the vicinity of the construction site but within the installation boundaries. Trailers,

equipment, or materials must not be open to public view with the exception of those items which are in support of ongoing work on any given day. Do not stockpile materials outside the fence in preparation for the next day's work. Park mobile equipment, such as tractors, wheeled lifting equipment, cranes, trucks, and like equipment within the fenced area at the end of each work day.

#### 3.5.4 Supplemental Storage Area

Upon request, and pending availability, the Contracting Officer will designate another or supplemental area for the use and storage of trailers, equipment, and materials. This area may not be in close proximity of the construction site but will be within the installation boundaries. The area will be maintained in a clean and orderly fashion and secured if needed to protect supplies and equipment. Utilities will not be provided to this area by the Government.

#### 3.5.5 Appearance of Trailers

- a. Trailers which are rusted, have peeling paint or are otherwise in need of repair will not be allowed on Installation property. Trailers must present a clean and neat exterior appearance and be in a state of good repair.
- b. Maintain the temporary facilities. Failure to do so will be sufficient reason to require their removal.

#### 3.5.6 Maintenance of Storage Area

Keep fencing in a state of good repair and proper alignment. Grassed or unpaved areas, which are not established roadways, and will be traversed with construction equipment or other vehicles, will be covered with a layer of gravel as necessary to prevent rutting and the tracking of mud onto paved or established roadways, should the Contractor elect to traverse them with construction equipment or other vehicles. Mow and maintain grass located within the boundaries of the construction site for the duration of the project. Grass and vegetation along fences, buildings, under trailers, and in areas not accessible to mowers will be edged or trimmed neatly.

#### 3.5.7 New Building

In the event a new building is constructed for the temporary project field office, it will be a minimum 12 feet in width, 16 feet in length and have a minimum of 7 feet headroom. Equip the building with approved electrical wiring, at least one double convenience outlet and the required switches and fuses to provide 110-120 volt power. Provide a work table with stool, desk with chair, two additional chairs, and one legal size file cabinet that can be locked. The building must be waterproof, supplied with a heater, have a minimum of two doors, electric lights, a telephone, a battery-operated smoke detector alarm, a sufficient number of adjustable windows for adequate light and ventilation, and a supply of approved drinking water. Approved sanitary facilities must be furnished. Screen the windows and doors and provide the doors with dead bolt type locking devices or a padlock and heavy-duty hasp bolted to the door. Door hinge pins will be non-removable. Arrange the windows to open and to be securely fastened from the inside. Protect glass panels in windows by bars or heavy mesh screens to prevent easy access. In warm weather, furnish air conditioning capable of maintaining the office at 50 percent

relative humidity and a room temperature 20 degrees F below the outside temperature when the outside temperature is 95 degrees F. Any new building erected for a temporary field office must be maintained during the life of the contract. Unless otherwise directed by the Contracting Officer, remove the building from the site upon completion and acceptance of the work.

### 3.5.8 Security Provisions

Provide adequate outside security lighting at the temporary facilities. The Contractor will be responsible for the security of its own equipment.

### 3.5.9 Weather Protection of Temporary Facilities and Stored Materials

Take necessary precautions to ensure that roof openings and other critical openings in the building are monitored carefully. Take immediate actions required to seal off such openings when rain or other detrimental weather is imminent, and at the end of each workday. Ensure that the openings are completely sealed off to protect materials and equipment in the building from damage.

#### 3.5.9.1 Building and Site Storm Protection

When a warning of gale force winds is issued, take precautions to minimize danger to persons, and protect the work and nearby Government property. Precautions must include, but are not limited to, closing openings; removing loose materials, tools and equipment from exposed locations; and removing or securing scaffolding and other temporary work. Close openings in the work when storms of lesser intensity pose a threat to the work or any nearby Government property.

### 3.6 GOVERNMENT FIELD OFFICE

#### 3.6.1 Resident Engineer's Office

Provide the Government Resident Engineer with an office, approximately 200 square feet in floor area, located where directed and providing space heat, air conditioning unit, electric light and power, and toilet facilities consisting of one lavatory and one water closet complete with connections to water and sewer mains. Provide a mail slot in the door or a lockable mail box mounted on the surface of the door. Include a 4 by 8-foot plan table, computer work space a standard size office desk and chair, and telephone. At completion of the project, the office will remain the property of the Contractor and be removed from the site. Utilities will be connected and disconnected in accordance with local codes and to the satisfaction of the Contracting Officer. Compliance with safety and appearance requirements for temporary facilities stated in previous paragraphs is required.

#### 3.6.2 Trailer-Type Mobile Office

The option is available to, furnish and maintain a trailer-type mobile office acceptable to the Contracting Officer to meet the requirements of the minimum facilities specified above. Securely anchor the trailer to the ground at all four corners to guard against movement during high winds. Coordinate requirements for proper anchoring with EM 383-1-1 Section 04.



### 3.7 PLANT COMMUNICATIONS

Whenever the individual elements of the plant are located so that operation by normal voice between these elements is not satisfactory, install a satisfactory means of communication, such as telephone or other suitable devices and make available for use by Government personnel.

### 3.8 TEMPORARY PROJECT SAFETY FENCING

As soon as practicable, but not later than 15 days after the date established for commencement of work, furnish and erect temporary project safety fencing at the work site. Maintain the safety fencing during the life of the contract and, upon completion and acceptance of the work, remove from the work site.

### 3.9 CLEANUP

Remove construction debris, waste materials, packaging material and the like from the work site daily. Any dirt or mud which is tracked onto paved or surfaced roadways must be cleaned away. Store any salvageable materials resulting from demolition activities within the fenced area described above or at the supplemental storage area. Neatly stack stored materials not in trailers, whether new or salvaged.

### 3.10 RESTORATION OF STORAGE AREA

Upon completion of the project remove the bulletin board, signs, barricades, haul roads, and any other temporary products from the site. After removal of trailers, materials, and equipment from within the fenced area, remove the fence. Restore areas used during the performance of the contract to the original or better condition. Remove gravel used to traverse grassed areas and restore the area to its original condition, including top soil and seeding as necessary.

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SECTION 01 54 00

SECURITY

PART 1 GENERAL

1.1 GENERAL

The Contractor shall provide site security (e.g., fencing or guard service) as required. However, as a minimum the Contractor shall maintain the site and all other Contractor controlled areas in such a manner as to minimize the risk of injury or accident to site personnel or others who may be in the area. Work on or near roadways shall be carefully marked with lights and barricades meeting State and local regulations or where such regulations are not applicable and adequate to minimize the risk of an accident. Open excavations which pose a danger to site personnel or others shall be fenced to prevent accidental entry. Side slopes of excavations shall be shored or left at a safe angle repose as defined by EM 385-1-1, Section 25. All equipment, when not in operation, shall be left in a safe manner (e.g., wheels blocked and buckets on the ground). Near residential areas where there may be children, special consideration will be given to site security/safety needs.

1.2 SECURITY AT AN INSTALLATION OR FACILITY

When work is performed at a Federal, State, or local installation or facility, the Contractor shall comply with all security requirements of that installation or facility.

1.3 IDENTIFICATION OF EMPLOYEES

The Contractor shall be responsible for furnishing an identification badge/card to each employee prior to the employee's work on-site, and for requiring each employee engaged on the work to display identification. Upon the release of any employee, all prescribed identification shall immediately be delivered to the Contracting Officer for cancellation.

1.3.1 Government Identification

The Contractor (or subcontractor) will submit to the Contracting Officer a listing of all employees requesting access. The listing will state the access duration required, project location and access areas on base, and the nationality of all employees. Upon approval of the list, all United States citizens will be issued an AF Form 75 for identification. All employees will be required to have this form in possession in order to gain daily access. Upon the release of any employee, all prescribed identification shall immediately be delivered to the Contracting Officer for cancellation.

1.3.2 Foreign Nationals

Employees who are not United States citizens (foreign nationals) will be required to complete a visitor's form. This form will be forwarded to a senior AF staff officer for approval. Allow two (2) business days for this approval process. Upon approval, the Contractor shall designate an employee who is a United States citizen to be responsible for the foreign

national. An AF Form 75 will then be issued to the foreign national by the Visitor's Center.

#### 1.4 AREA RESTRICTIONS

All contractor personnel will be expected to stay within or near the designated contract work area or common area (eating establishments, disposal areas, etc.). Foreign nationals shall be accompanied by a United States citizen when outside the designated contract work area.

#### 1.5 IDENTIFICATION OF EMPLOYEES

The Contractor shall be responsible for furnishing an identification badge/card to each employee prior to the employee's work on-site, and for requiring each employee engaged on the work to display identification. Upon the release of any employee, all prescribed identification shall immediately be delivered to the Contracting Officer for cancellation.

#### 1.6 BASE ENTRY REQUIREMENTS

##### 1.6.1 General

The Contractor and all employees, as well as subcontractors and their employees, shall abide by the current rules and regulations of Kirtland Air Force Base; such base regulations may be reviewed at the Security Police Offices. Anyone found to be in violation of such rules and regulations may be removed and barred from further entry by the Base Commander.

##### 1.6.1.1 Base Entry Procedures

The following will apply when requiring access to Kirtland Air Force Base.

a. Base Entry passes will be issued by the Pass and Registration Office for both short-term and long-term contracts. The office is located on "B" Street, north end of Building 20140, Room 15. Entry to the Pass and Registration Office can be gained through the Red Cross entrance. In order to obtain a base pass the Contractor must submit a letter in duplicate to the Contracting Officer at the following address:

U.S. Army Corps of Engineers  
Northern Area Office  
P.O. Box 5010  
Kirtland Branch Post Office  
Albuquerque, New Mexico 87185-5010

b. The letter will contain the following information:

Company name.

Contract Number.

Scheduled completion date of the contract.

Description of the work to be performed at Kirtland Air Force Base.

Contractors with ten (10) or less employees will: List the names and social security number of each employee on the letter.

Contractors with ten (10) or more employees will: List a primary and alternate individual who will issue and monitor visitor and vehicle passes (AF Form 75) for their company. These individuals will be instructed on issue and control procedures by the Pass and Registration Office.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

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SECTION 01 57 19

TEMPORARY ENVIRONMENTAL CONTROLS

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.

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

29 CFR 1910.120	Hazardous Waste Operations and Emergency Response
40 CFR 112	Oil Pollution Prevention
40 CFR 122.26	Storm Water Discharges (Applicable to State NPDES Programs, see section 123.25)
40 CFR 241	Guidelines for Disposal of Solid Waste
40 CFR 243	Guidelines for the Storage and Collection of Residential, Commercial, and Institutional Solid Waste
40 CFR 258	Subtitle D Landfill Requirements
40 CFR 260	Hazardous Waste Management System: General
40 CFR 261	Identification and Listing of Hazardous Waste
40 CFR 261.7	Residues of Hazardous Waste in Empty Containers
40 CFR 262	Standards Applicable to Generators of Hazardous Waste
40 CFR 262.31	Standards Applicable to Generators of Hazardous Waste-Labeling
40 CFR 262.34	Standards Applicable to Generators of Hazardous Waste-Accumulation Time
40 CFR 263	Standards Applicable to Transporters of Hazardous Waste
40 CFR 264	Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
40 CFR 265	Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities

40 CFR 266	Standards for the Management of Specific Hazardous Wastes and Specific Types of Hazardous Waste Management Facilities
40 CFR 268	Land Disposal Restrictions
40 CFR 273	Standards For Universal Waste Management
40 CFR 273.2	Standards for Universal Waste Management - Batteries
40 CFR 273.4	Standards for Universal Waste Management - Mercury Containing Equipment
40 CFR 273.5	Standards for Universal Waste Management - Lamps
40 CFR 279	Standards for the Management of Used Oil
40 CFR 300	National Oil and Hazardous Substances Pollution Contingency Plan
40 CFR 300.125	National Oil and Hazardous Substances Pollution Contingency Plan - Notification and Communications
40 CFR 355	Emergency Planning and Notification
40 CFR 403	General Pretreatment Regulations for Existing and New Sources of Pollution
40 CFR 50	National Primary and Secondary Ambient Air Quality Standards
40 CFR 60	Standards of Performance for New Stationary Sources
40 CFR 61	National Emission Standards for Hazardous Air Pollutants
40 CFR 63	National Emission Standards for Hazardous Air Pollutants for Source Categories
40 CFR 64	Compliance Assurance Monitoring
40 CFR 745	Lead-Based Paint Poisoning Prevention in Certain Residential Structures
40 CFR 761	Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions
49 CFR 171	General Information, Regulations, and Definitions
49 CFR 172	Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response



Information, and Training Requirements

49 CFR 173

Shippers - General Requirements for  
Shipments and Packagings

49 CFR 178

Specifications for Packagings

1.2 DEFINITIONS

1.2.1 Class I and II Ozone Depleting Substance (ODS)

Class I ODS is defined in Section 602(a) of The Clean Air Act. A list of Class I ODS can be found on the EPA website at the following weblink.  
<https://www.epa.gov/ozone-layer-protection/ozone-depleting-substances>.

Class II ODS is defined in Section 602(s) of The Clean Air Act. A list of Class II ODS can be found on the EPA website at the following weblink.  
<https://www.epa.gov/ozone-layer-protection/ozone-depleting-substances>.

1.2.2 Contractor Generated Hazardous Waste

Contractor generated hazardous waste is materials that, if abandoned or disposed of, may meet the definition of a hazardous waste. These waste streams would typically consist of material brought on site by the Contractor to execute work, but are not fully consumed during the course of construction. Examples include, but are not limited to, excess paint thinners (i.e. methyl ethyl ketone, toluene), waste thinners, excess paints, excess solvents, waste solvents, excess pesticides, and contaminated pesticide equipment rinse water.

1.2.3 Electronics Waste

Electronics waste is discarded electronic devices intended for salvage, recycling, or disposal.

1.2.4 Environmental Pollution and Damage

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

1.2.5 Environmental Protection

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

1.2.6 Hazardous Debris

As defined in paragraph SOLID WASTE, debris that contains listed hazardous waste (either on the debris surface, or in its interstices, such as pore structure) in accordance with 40 CFR 261. Hazardous debris also includes debris that exhibits a characteristic of hazardous waste in accordance

with 40 CFR 261.

#### 1.2.7 Hazardous Materials

Hazardous materials as defined in 49 CFR 171 and listed in 49 CFR 172.

Hazardous material is any material that: Is regulated as a hazardous material in accordance with 49 CFR 173; or requires a Safety Data Sheet (SDS) in accordance with 29 CFR 1910.120; or during end use, treatment, handling, packaging, storage, transportation, or disposal meets or has components that meet or have potential to meet the definition of a hazardous waste as defined by 40 CFR 261 Subparts A, B, C, or D. Designation of a material by this definition, when separately regulated or controlled by other sections or directives, does not eliminate the need for adherence to that hazard-specific guidance which takes precedence over this section for "control" purposes. Such material includes ammunition, weapons, explosive actuated devices, propellants, pyrotechnics, chemical and biological warfare materials, medical and pharmaceutical supplies, medical waste and infectious materials, bulk fuels, radioactive materials, and other materials such as asbestos, mercury, and polychlorinated biphenyls (PCBs).

#### 1.2.8 Hazardous Waste

Hazardous Waste is any material that meets the definition of a solid waste and exhibit a hazardous characteristic (ignitability, corrosivity, reactivity, or toxicity) as specified in 40 CFR 261, Subpart C, or contains a listed hazardous waste as identified in 40 CFR 261, Subpart D. All wastes generated must be characterized by the contractor. Any wastes characterized as Universal (lamps, batteries, etc.) or Hazardous must be properly disposed of by the contractor in accordance with (IAW) all federal and state regulations. Transformers, capacitors, and ballast being removed/replaced must also be characterized and disposed of by the contractor IAW all federal, state, and local regulations. Ensure Scope of Work and contract funding accurately account for these requirements. Provide proof of disposal of Universal Wastes or Hazardous Wastes to the Hazardous Waste Program POC.

#### 1.2.9 Land Application

Land Application means spreading or spraying discharge water at a rate that allows the water to percolate into the soil. No sheeting action, soil erosion, discharge into storm sewers, discharge into defined drainage areas, or discharge into the "waters of the United States" must occur. Comply with federal, state, and local laws and regulations.

#### 1.2.10 Municipal Separate Storm Sewer System (MS4) Permit

MS4 permits are those held by installations to obtain NPDES permit coverage for their stormwater discharges.

#### 1.2.11 National Pollutant Discharge Elimination System (NPDES)

The NPDES permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States.

#### 1.2.12 Oily Waste

Oily waste are those materials that are, or were, mixed with Petroleum,

Oils, and Lubricants (POLs) and have become separated from that POLs. Oily wastes also means materials, including wastewaters, centrifuge solids, filter residues or sludges, bottom sediments, tank bottoms, and sorbents which have come into contact with and have been contaminated by, POLs and may be appropriately tested and discarded in a manner which is in compliance with other state and local requirements.

This definition includes materials such as oily rags, "kitty litter" sorbent clay and organic sorbent material. These materials may be land filled provided that: It is not prohibited in other state regulations or local ordinances; the amount generated is "de minimus" (a small amount); it is the result of minor leaks or spills resulting from normal process operations; and free-flowing oil has been removed to the practicable extent possible. Large quantities of this material, generated as a result of a major spill or in lieu of proper maintenance of the processing equipment, are a solid waste. As a solid waste, perform a hazardous waste determination prior to disposal. As this can be an expensive process, it is recommended that this type of waste be minimized through good housekeeping practices and employee education.

#### 1.2.13 Project Pesticide Coordinator

The Project Pesticide Coordinator (PPC) is an individual who resides at a Civil Works Project office and who is responsible overseeing of pesticide application on project grounds.

#### 1.2.14 Regulated Waste

Regulated waste are solid wastes that have specific additional federal, state, or local controls for handling, storage, or disposal.

#### 1.2.15 Sediment

Sediment is soil and other debris that have eroded and have been transported by runoff water or wind.

#### 1.2.16 Solid Waste

Solid waste is a solid, liquid, semi-solid or contained gaseous waste. A solid waste can be a hazardous waste, non-hazardous waste, or non-Resource Conservation and Recovery Act (RCRA) regulated waste. Types of solid waste typically generated at construction sites may include:

##### 1.2.16.1 Debris

Debris is non-hazardous solid material generated during the construction, demolition, or renovation of a structure that exceeds 2.5-inch particle size that is: a manufactured object; plant or animal matter; or natural geologic material (for example, cobbles and boulders), broken or removed concrete, masonry, and rock asphalt paving; ceramics; roofing paper and shingles. Inert materials may not be reinforced with or contain ferrous wire, rods, accessories and weldments. A mixture of debris and other material such as soil or sludge is also subject to regulation as debris if the mixture is comprised primarily of debris by volume, based on visual inspection.

##### 1.2.16.2 Green Waste

Green waste is the vegetative matter from landscaping, land clearing and

grubbing, including, but not limited to, grass, bushes, scrubs, small trees and saplings, tree stumps and plant roots. Marketable trees, grasses and plants that are indicated to remain, be re-located, or be re-used are not included.

#### 1.2.16.3 Material not regulated as solid waste

Material not regulated as solid waste is nuclear source or byproduct materials regulated under the Federal Atomic Energy Act of 1954 as amended; suspended or dissolved materials in domestic sewage effluent or irrigation return flows, or other regulated point source discharges; regulated air emissions; and fluids or wastes associated with natural gas or crude oil exploration or production.

#### 1.2.16.4 Non-Hazardous Waste

Non-hazardous waste is waste that is excluded from, or does not meet, hazardous waste criteria in accordance with 40 CFR 263.

#### 1.2.16.5 Recyclables

Recyclables are materials, equipment and assemblies such as doors, windows, door and window frames, plumbing fixtures, glazing and mirrors that are recovered and sold as recyclable, wiring, insulated/non-insulated copper wire cable, and structural components. It also includes commercial-grade refrigeration equipment with Freon removed, household appliances where the basic material content is metal, clean polyethylene terephthalate bottles, cooking oil, used fuel oil, textiles, high-grade paper products and corrugated cardboard, stackable pallets in good condition, clean crating material, and clean rubber/vehicle tires. Metal meeting the definition of lead contaminated or lead based paint contaminated may be included as recyclable if sold to a scrap metal company. Paint cans that meet the definition of empty containers in accordance with 40 CFR 261.7 may be included as recyclable if sold to a scrap metal company. Document all weight/volume of all wastes disposed, recycled, or salvaged. If using Kirtland AFB C&D Landfill for disposal, scrap metal and corrugated cardboard must be segregated for recycling at the landfill's recycling area. Mixed loads of waste are not accepted.

#### 1.2.16.6 Surplus Soil

Surplus soil is existing soil that is in excess of what is required for this work, including aggregates intended, but not used, for on-site mixing of concrete, mortars, and paving. Contaminated soil meeting the definition of hazardous material or hazardous waste is not included and must be managed in accordance with paragraph HAZARDOUS MATERIAL MANAGEMENT.

#### 1.2.16.7 Scrap Metal

This includes scrap and excess ferrous and non-ferrous metals such as reinforcing steel, structural shapes, pipe, and wire that are recovered or collected and disposed of as scrap. Scrap metal meeting the definition of hazardous material or hazardous waste is not included.

#### 1.2.17 Surface Discharge

Surface discharge means discharge of water into drainage ditches, storm sewers, creeks or "waters of the United States". Surface discharges are discrete, identifiable sources and require a permit from the governing

agency. Comply with federal, state, and local laws and regulations.

#### 1.2.18 Wastewater

Wastewater is the used water and solids from a community that flow to a treatment plant.

##### 1.2.18.1 Stormwater

Stormwater is any precipitation in an urban or suburban area that does not evaporate or soak into the ground, but instead collects and flows into storm drains, rivers, and streams.

#### 1.2.19 Waters of the United States

Waters of the United States means Federally jurisdictional waters, including wetlands, that are subject to regulation under Section 404 of the Clean Water Act or navigable waters, as defined under the Rivers and Harbors Act.

#### 1.2.20 Universal Waste

The universal waste regulations streamline collection requirements for certain hazardous wastes in the following categories: batteries, pesticides, mercury-containing equipment (for example, thermostats), and lamps (for example, fluorescent bulbs). The rule is designed to reduce hazardous waste in the municipal solid waste (MSW) stream by making it easier for universal waste handlers to collect these items and send them for recycling or proper disposal. These regulations can be found at [40 CFR 273](#).

### 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. Submittals with an "S" are for inclusion in the Sustainability eNotebook, in conformance with Section [01 33 29](#) SUSTAINABILITY REPORTING. Submit the following in accordance with Section [01 33 00](#) SUBMITTAL PROCEDURES:

#### [SD-01 Preconstruction Submittals](#)

[Preconstruction Survey](#)

[Solid Waste Management Permit; G](#)

[Regulatory Notifications; G](#)

[Environmental Protection Plan; G, \[ECGE\]\(#\)](#)

[Stormwater Notice of Intent](#) (for NPDES coverage under the general permit for construction activities); [G, \[ECGE\]\(#\)](#)

[Dirt and Dust Control Plan; G](#)

[Employee Training Records; G](#)

[Environmental Manager Qualifications; G](#)

SD-06 Test Reports

Laboratory Analysis

Inspection Reports

Solid Waste Management Report; G, ECGE

SD-07 Certificates

Employee Training Records; G, ECGE

Certificate of Competency

Erosion and Sediment Control Inspector Qualifications

SD-11 Closeout Submittals

Stormwater Pollution Prevention Plan Compliance Notebook; G

Stormwater Notice of Termination (for NPDES coverage under the general permit for construction activities); G

Waste Determination Documentation; G

Disposal Documentation for Hazardous and Regulated Waste; G

Assembled Employee Training Records; G

Solid Waste Management Permit; G

Solid Waste Management Report; G

Hazardous Waste/Debris Management; G

Regulatory Notifications; G

Sales Documentation; G

Contractor Certification

As-Built Topographic Survey

1.4 ENVIRONMENTAL PROTECTION REQUIREMENTS

Provide and maintain, during the life of the contract, environmental protection as defined. Plan for and provide environmental protective measures to control pollution that develops during construction practice. Plan for and provide environmental protective measures required to correct conditions that develop during the construction of permanent or temporary environmental features associated with the project. Protect the environmental resources within the project boundaries and those affected outside the limits of permanent work during the entire duration of this Contract. Comply with federal, state, and local regulations pertaining to the environment, including water, air, solid waste, hazardous waste and substances, oily substances, and noise pollution.

Tests and procedures assessing whether construction operations comply with

Applicable Environmental Laws may be required. Analytical work must be performed by qualified laboratories; and where required by law, the laboratories must be certified.

#### 1.4.1 Conformance with the Environmental Management System

Perform work under this contract consistent with the policy and objectives identified in the installation's Environmental Management System (EMS). Perform work in a manner that conforms to objectives and targets of the environmental programs and operational controls identified by the EMS. Support Government personnel when environmental compliance and EMS audits are conducted by escorting auditors at the Project site, answering questions, and providing proof of records being maintained. Provide monitoring and measurement information as necessary to address environmental performance relative to environmental, energy, and transportation management goals. In the event an EMS nonconformance or environmental noncompliance associated with the contracted services, tasks, or actions occurs, take corrective and preventative actions. In addition, employees must be aware of their roles and responsibilities under the installation EMS and of how these EMS roles and responsibilities affect work performed under the contract.

Coordinate with the installation's EMS coordinator to identify training needs associated with environmental aspects and the EMS, and arrange training or take other action to meet these needs. Provide training documentation to the Contracting Officer. The Installation Environmental Office will retain associated environmental compliance records. Make EMS Awareness training completion certificates available to Government auditors during EMS audits and include the certificates in the Employee Training Records. See paragraph EMPLOYEE TRAINING RECORDS.

### 1.5 QUALITY ASSURANCE

#### 1.5.1 Preconstruction Survey and Protection of Features

This paragraph supplements the Contract Clause PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS. Prior to start of any onsite construction activities, perform a [Preconstruction Survey](#) of the project site with the Contracting Officer, and take photographs showing existing environmental conditions in and adjacent to the site. Submit a report for the record. Include in the report a plan describing the features requiring protection under the provisions of the Contract Clauses, which are not specifically identified on the drawings as environmental features requiring protection along with the condition of trees, shrubs and grassed areas immediately adjacent to the site of work and adjacent to the Contractor's assigned storage area and access route(s), as applicable. The Contractor and the Contracting Officer will sign this survey report upon mutual agreement regarding its accuracy and completeness. Protect those environmental features included in the survey report and any indicated on the drawings, regardless of interference that their preservation may cause to the work under the Contract.

#### 1.5.2 [Regulatory Notifications](#)

Provide regulatory notification requirements in accordance with federal, state and local regulations. In cases where the Government will also provide public notification (such as stormwater permitting), coordinate with the Contracting Officer. Submit copies of regulatory notifications to the Contracting Officer at least 10 days prior to commencement of work

activities. Typically, regulatory notifications must be provided for the following (this listing is not all-inclusive): demolition, renovation, NPDES defined site work, construction, removal or use of a permitted air emissions source, and remediation of controlled substances (asbestos, hazardous waste, lead paint).

#### 1.5.3 Environmental Brief

Attend an environmental brief to be included in the preconstruction meeting. Provide the following information: types, quantities, and use of hazardous materials that will be brought onto the installation; and types and quantities of wastes/wastewater that may be generated during the Contract. Discuss the results of the Preconstruction Survey at this time.

Prior to initiating any work on site, meet with the Contracting Officer and installation Environmental Office to discuss the proposed Environmental Protection Plan (EPP). Develop a mutual understanding relative to the details of environmental protection, including measures for protecting natural and cultural resources, required reports, required permits, permit requirements (such as mitigation measures), and other measures to be taken.

#### 1.5.4 Environmental Manager

Appoint in writing an Environmental Manager for the project site. The Environmental Manager is directly responsible for coordinating contractor compliance with federal, state, local, and installation requirements. The Environmental Manager must ensure compliance with Hazardous Waste Program requirements (including hazardous waste handling, storage, manifesting, and disposal); implement the EPP; ensure environmental permits are obtained, maintained, and closed out; ensure compliance with Stormwater Program requirements; ensure compliance with Hazardous Materials (storage, handling, and reporting) requirements; and coordinate any remediation of regulated substances (lead, asbestos, PCB transformers). This can be a collateral position; however, the person in this position must be trained to adequately accomplish the following duties: ensure waste segregation and storage compatibility requirements are met; inspect and manage Satellite Accumulation areas; ensure only authorized personnel add wastes to containers; ensure Contractor personnel are trained in 40 CFR requirements in accordance with their position requirements; coordinate removal of waste containers; and maintain the Environmental Records binder and required documentation, including environmental permits compliance and close-out. Submit [Environmental Manager Qualifications](#) to the Contracting Officer.

#### 1.5.5 Non-Compliance Notifications

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 EPP. 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 will be granted or equitable adjustments allowed 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.



## 1.6 ENVIRONMENTAL PROTECTION PLAN

The purpose of the EPP is to present an overview of known or potential environmental issues that must be considered and addressed during construction. Incorporate construction related objectives and targets from the installation's EMS into the EPP. Include in the EPP measures for protecting natural and cultural resources, required reports, and other measures to be taken. Meet with the Contracting Officer or Contracting Officer Representative to discuss the EPP and develop a mutual understanding relative to the details for environmental protection including measures for protecting natural resources, required reports, and other measures to be taken. Submit the EPP within 15 days after notice to proceed and not less than 10 days before the preconstruction meeting. Revise the EPP throughout the project to include any reporting requirements, changes in site conditions, or contract modifications that change the project scope of work in a way that could have an environmental impact. No requirement in this section will relieve the Contractor of any applicable federal, state, and local environmental protection laws and regulations. During Construction, identify, implement, and submit for approval any additional requirements to be included in the EPP. Maintain the current version onsite.

The EPP includes, but is not limited to, the following elements:

### 1.6.1 General Overview and Purpose

#### 1.6.1.1 Descriptions

A brief description of each specific plan required by environmental permit or elsewhere in this Contract such as stormwater pollution prevention plan, solid waste management plan, wastewater management plan, air pollution control plan, contaminant prevention plan, a historical, archaeological, cultural resources, biological resources and wetlands plan, traffic control plan Hazardous, Toxic and Radioactive Waste (HTRW) Plan Non-Hazardous Solid Waste Disposal Plan borrowing material plan.

#### 1.6.1.2 Duties

The duties and level of authority assigned to the person(s) on the job site who oversee environmental compliance, such as who is responsible for adherence to the EPP, who is responsible for spill cleanup and training personnel on spill response procedures, who is responsible for manifesting hazardous waste to be removed from the site (if applicable), and who is responsible for training the Contractor's environmental protection personnel.

#### 1.6.1.3 Procedures

A copy of any standard or project-specific operating procedures that will be used to effectively manage and protect the environment on the project site.

#### 1.6.1.4 Communications

Communication and training procedures that will be used to convey environmental management requirements to Contractor employees and subcontractors.

#### 1.6.1.5 Contact Information

Emergency contact information contact information (office phone number, cell phone number, and e-mail address).

#### 1.6.2 General Site Information

##### 1.6.2.1 Drawings

Drawings showing locations of proposed temporary excavations or embankments for haul roads, stream crossings, jurisdictional wetlands, material storage areas, structures, sanitary facilities, storm drains and conveyances, and stockpiles of excess soil.

##### 1.6.2.2 Work Area

Work area plan showing the proposed activity in each portion of the area and identify the areas of limited use or nonuse. Include measures for marking the limits of use areas, including methods for protection of features to be preserved within authorized work areas and methods to control runoff and to contain materials on site, and a traffic control plan.

##### 1.6.2.3 Documentation

A letter signed by an officer of the firm appointing the Environmental Manager and stating that person is responsible for managing and implementing the Environmental Program as described in this contract. Include in this letter the Environmental Manager's authority to direct the removal and replacement of non-conforming work.

#### 1.6.3 Management of Natural Resources

- a. Land resources
- b. Tree protection
- c. Replacement of damaged landscape features
- d. Temporary construction
- e. Stream crossings
- f. Fish and wildlife resources
- g. Wetland areas

#### 1.6.4 Protection of Historical and Archaeological Resources

- a. Objectives
- b. Methods

#### 1.6.5 Stormwater Management and Control

- a. Ground cover
- b. Erodible soils

- c. Temporary measures
  - (1) Structural Practices
  - (2) Temporary and permanent stabilization
- d. Effective selection, implementation and maintenance of Best Management Practices (BMPs).

#### 1.6.6 Protection of the Environment from Waste Derived from Contractor Operations

Control and disposal of solid and sanitary waste. Control and disposal of hazardous waste.

This item consist of the management procedures for hazardous waste to be generated. The elements of those procedures will coincide with the Installation Hazardous Waste Management Plan. The Contracting Officer will provide a copy of the Installation Hazardous Waste Management Plan. As a minimum, include the following:

- a. List of the types of hazardous wastes expected to be generated
- b. Procedures to ensure a written waste determination is made for appropriate wastes that are to be generated
- c. Sampling/analysis plan, including laboratory method(s) that will be used for waste determinations and copies of relevant laboratory certifications
- d. Methods and proposed locations for hazardous waste accumulation/storage (that is, in tanks or containers)
- e. Management procedures for storage, labeling, transportation, and disposal of waste (treatment of waste is not allowed unless specifically noted)
- f. Management procedures and regulatory documentation ensuring disposal of hazardous waste complies with Land Disposal Restrictions (40 CFR 268)
- g. Management procedures for recyclable hazardous materials such as lead-acid batteries, used oil, and similar
- h. Used oil management procedures in accordance with 40 CFR 279; Hazardous waste minimization procedures
- i. Plans for the disposal of hazardous waste by permitted facilities; and Procedures to be employed to ensure required employee training records are maintained.

#### 1.6.7 Prevention of Releases to the Environment

Procedures to prevent releases to the environment

Notifications in the event of a release to the environment

#### 1.6.8 Regulatory Notification and Permits

List what notifications and permit applications must be made. Some permits require up to 180 days to obtain. Demonstrate that those permits have been obtained or applied for by including copies of applicable environmental permits. The EPP will not be approved until the permits have been obtained.

#### 1.6.9 Clean Air Act Compliance

##### 1.6.9.1 Haul Route

Submit truck and material haul routes along with a [Dirt and Dust Control Plan](#) for controlling dirt, debris, and dust on Installation roadways. As a minimum, identify in the plan the subcontractor and equipment for cleaning along the haul route and measures to reduce dirt, dust, and debris from roadways.

##### 1.6.9.2 Pollution Generating Equipment

Identify air pollution generating equipment or processes that may require federal, state, or local permits under the Clean Air Act. Determine requirements based on any current installation permits and the impacts of the project. Provide a list of all fixed or mobile equipment, machinery or operations that could generate air emissions during the project to the Installation Environmental Office (Air Program Manager).

##### 1.6.9.3 Stationary Internal Combustion Engines

Identify portable and stationary internal combustion engines that will be supplied, used or serviced. Comply with [40 CFR 60](#) Subpart IIII, [40 CFR 60](#) Subpart JJJJ, [40 CFR 63](#) Subpart ZZZZ, and local regulations as applicable. At minimum, include the make, model, serial number, manufacture date, size (engine brake horsepower), and EPA emission certification status of each engine. Maintain applicable records and log hours of operation and fuel use. Logs must include reasons for operation and delineate between emergency and non-emergency operation.

##### 1.6.9.4 Refrigerants

Identify management practices to ensure that heating, ventilation, and air conditioning (HVAC) work involving refrigerants complies with 40 CFR 82 requirements. Technicians must be certified, maintain copies of certification on site, use certified equipment and log work that requires the addition or removal of refrigerant. Any refrigerant reclaimed is the property of the Government, coordinate with the Installation Environmental Office to determine the appropriate turn in location.

##### 1.6.9.5 Air Pollution-engineering Processes

Identify planned air pollution-generating processes and management control measures (including, but not limited to, spray painting, abrasive blasting, demolition, material handling, fugitive dust, and fugitive emissions). Log hours of operations and track quantities of materials used.

##### 1.6.9.6 Compliant Materials

Provide the Government a list of and SDSs for all hazardous materials

proposed for use on site. Materials must be compliant with all Clean Air Act regulations for emissions including solvent and volatile organic compound contents, and applicable National Emission Standards for Hazardous Air Pollutants requirements. The Government may alter or limit use of specific materials as needed to meet installation permit requirements for emissions.

#### 1.7 LICENSES AND PERMITS

Obtain licenses and permits required for the construction of the project and in accordance with FAR 52.236-7 Permits and Responsibilities. Notify the Government of all general use permitted equipment the Contractor plans to use on site. This paragraph supplements the Contractor's responsibility under FAR 52.236-7 Permits and Responsibilities.

a. The following permits have been obtained by the Government:

(1) NONE

b. The following permits will be obtained by the Government:

(1) NONE

#### 1.8 ENVIRONMENTAL RECORDS BINDER

Maintain on-site a separate three-ring Environmental Records Binder and submit at the completion of the project. Make separate parts within the binder that correspond to each submittal listed under paragraph CLOSEOUT SUBMITTALS in this section.

#### 1.9 SOLID WASTE MANAGEMENT PERMIT

Provide the Contracting Officer with written notification of the quantity of anticipated solid waste or debris that is anticipated or estimated to be generated by construction. Include in the report the locations where various types of waste will be disposed or recycled. Include letters of acceptance from the receiving location or as applicable; submit one copy of the receiving location state and local Solid Waste Management Permit or license showing such agency's approval of the disposal plan before transporting wastes off Government property.

##### 1.9.1 Solid Waste Management Report

Monthly, submit a solid waste disposal report to the Contracting Officer. For each waste, the report will state the classification (using the definitions provided in this section), amount, location, and name of the business receiving the solid waste.

#### 1.10 FACILITY HAZARDOUS WASTE GENERATOR STATUS

KAFB is designated as a Large Quantity Generator. Meet the regulatory requirements of this generator designation for any work conducted within the boundaries of this Installation. Comply with provisions of federal, state, and local regulatory requirements applicable to this generator status regarding training and storage, handling, and disposal of construction derived wastes.

## PART 2 PRODUCTS

Not Used

## PART 3 EXECUTION

### 3.1 PROTECTION OF NATURAL RESOURCES

Minimize interference with, disturbance to, and damage to fish, wildlife, and plants, including their habitats. Prior to the commencement of activities, consult with the Installation Environmental Office, regarding rare species or sensitive habitats that need to be protected. The protection of rare, threatened, and endangered animal and plant species identified, including their habitats, is the Contractor's responsibility.

Preserve the natural resources within the project boundaries and outside the limits of permanent work. Restore to an equivalent or improved condition upon completion of work that is consistent with the requirements of the Installation Environmental Office or as otherwise specified. Confine construction activities to within the limits of the work indicated or specified.

#### 3.1.1 Flow Ways

Do not alter water flows or otherwise significantly disturb the native habitat adjacent to the project and critical to the survival of fish and wildlife, except as specified and permitted.

#### 3.1.2 Vegetation

Except in areas to be cleared, do not remove, cut, deface, injure, or destroy trees or shrubs without the Contracting Officer's permission. Do not fasten or attach ropes, cables, or guys to existing nearby trees for anchorages unless authorized by the Contracting Officer. Where such use of attached ropes, cables, or guys is authorized, the Contractor is responsible for any resultant damage.

Protect existing trees that are to remain to ensure they are not injured, bruised, defaced, or otherwise damaged by construction operations. Remove displaced rocks from uncleared areas. Coordinate with the Contracting Officer and Installation Environmental Office to determine appropriate action for trees and other landscape features scarred or damaged by equipment operations.

#### 3.1.3 Streams

Stream crossings must allow movement of materials or equipment without violating water pollution control standards of the federal, state, and local governments. Construction of stream crossing structures must be in compliance with any required permits including, but not limited to, Clean Water Act Section 404, and Section 401 Water Quality.

The Contracting Officer's approval and appropriate permits are required before any equipment will be permitted to ford live streams. In areas where frequent crossings are required, install temporary culverts or bridges. Obtain Contracting Officer's approval prior to installation. Remove temporary culverts or bridges upon completion of work, and repair the area to its original condition unless otherwise required by the Contracting Officer.

### 3.2 STORMWATER

Do not discharge stormwater from construction sites to the sanitary sewer. If the water is noted or suspected of being contaminated, it may only be released to the storm drain system if the discharge is specifically permitted. Obtain authorization in advance from the Installation Environmental Office for any release of contaminated water.

#### 3.2.1 Construction General Permit

Provide a Construction General Permit as required by 40 CFR 122.26 or EPA. Under the terms and conditions of the permit, install, inspect, maintain BMPs, prepare stormwater erosion and sediment control inspection reports, and submit SWPPP inspection reports. Maintain construction operations and management in compliance with the terms and conditions of the general permit for stormwater discharges from construction activities.

##### 3.2.1.1 Stormwater Pollution Prevention Plan

Submit a project-specific Stormwater Pollution Prevention Plan (SWPPP) to the Contracting Officer for approval, prior to the commencement of work. The SWPPP must meet the requirements of 40 CFR 122.26 and the EPA General Permit for stormwater discharges from construction sites.

Include the following:

- a. Comply with terms of the EPA general permit for stormwater discharges from construction activities. Prepare SWPPP in accordance with EPA requirements. Use EPA guide Developing your Stormwater Pollution Prevention Plan located at <http://water.epa.gov/polwaste/npdes/stormwater/Stormwater-Pollution-Prevention-Plans-for-Construction-Activities.cfm> to prepare the SWPPP.
- b. Select applicable BMPs from EPA Fact Sheets located at <http://water.epa.gov/polwaste/npdes/swbmp/Construction-Site-StormWater-Run-Off-Control.cfm> or in accordance with applicable state or local requirements.
- c. Include a completed copy of the Notice of Intent, BMP Inspection Report Template, and Stormwater Notice of Termination, except for the effective date.

##### 3.2.1.2 Stormwater Notice of Intent for Construction Activities

Prepare and submit the Notice of Intent for NPDES coverage under the general permit for construction activities to the Contracting Officer for review and approval.

Submit the approved NOI and appropriate permit fees onto the appropriate federal or state agency for approval. No land disturbing activities may commence without permit coverage. Maintain an approved copy of the SWPPP at the onsite construction office, and continually update as regulations require, reflecting current site conditions.

##### 3.2.1.3 Inspection Reports

Submit "Inspection Reports" to the Contracting Officer in accordance with EPA Construction General Permit.

#### 3.2.1.4 Stormwater Pollution Prevention Plan Compliance Notebook

Create and maintain a three ring binder of documents that demonstrate compliance with the Construction General Permit. Include a copy of the permit Notice of Intent, proof of permit fee payment, SWPPP and SWPPP update amendments, inspection reports and related corrective action records, copies of correspondence with the EPA, and a copy of the permit Notice of Termination in the binder. At project completion, the notebook becomes property of the Government. Provide the compliance notebook to the Contracting Officer.

#### 3.2.1.5 Stormwater Notice of Termination for Construction Activities

Submit a Notice of Termination to the Contracting Officer for approval once construction is complete and final stabilization has been achieved on all portions of the site for which the permittee is responsible. Once approved, submit the Notice of Termination to the appropriate state or federal agency. Prepare [as-built topographic survey](#) information required by the permitting agency for certification of the stormwater management system, and provide to the Contracting Officer.

#### 3.2.2 Erosion and Sediment Control Measures

Provide erosion and sediment control measures in accordance with state and local laws and regulations. Preserve vegetation to the maximum extent practicable.

Erosion control inspection reports may be compiled as part of a stormwater pollution prevention plan inspection reports.

##### 3.2.2.1 Sediment Control Practices

Implement sediment control practices to divert flows from exposed soils, temporarily store flows, or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Implement sediment control practices prior to soil disturbance and prior to creating areas with concentrated flow, during the construction process to minimize erosion and sediment laden runoff. Include the following devices: silt fence, temporary diversion dikes, storm drain inlet protection.

#### 3.2.3 Work Area Limits

Mark the areas that need not be disturbed under this Contract prior to commencing construction activities. Mark or fence isolated areas within the general work area that are not to be disturbed. Protect monuments and markers before construction operations commence. Where construction operations are to be conducted during darkness, any markers must be visible in the dark. Personnel must be knowledgeable of the purpose for marking and protecting particular objects.

#### 3.2.4 Contractor Facilities and Work Areas

Place field offices, staging areas, stockpile storage, and temporary buildings in areas designated on the drawings or as directed by the Contracting Officer. Move or relocate the Contractor facilities only when approved by the Government. Provide erosion and sediment controls for onsite borrow and spoil areas to prevent sediment from entering nearby waters. Control temporary excavation and embankments for plant or work areas to protect adjacent areas.



### 3.2.5 Municipal Separate Storm Sewer System (MS4) Management

Comply with the Installation's MS4 permit requirements.

## 3.3 SURFACE AND GROUNDWATER

### 3.3.1 Cofferdams, Diversions, and Dewatering

Construction operations for dewatering, removal of cofferdams, tailrace excavation, and tunnel closure must be constantly controlled to maintain compliance with existing state water quality standards and designated uses of the surface water body. . Do not discharge excavation ground water to the sanitary sewer, storm drains, or to surface waters without prior specific authorization in writing from the Installation Environmental Office. Discharge of hazardous substances will not be permitted under any circumstances. Use sediment control BMPs to prevent construction site runoff from directly entering any storm drain or surface waters.

If the construction dewatering is noted or suspected of being contaminated, it may only be released to the storm drain system if the discharge is specifically permitted. Obtain authorization for any contaminated groundwater release in advance from the Installation Environmental Officer and the federal or state authority, as applicable. Discharge of hazardous substances will not be permitted under any circumstances.

### 3.3.2 Waters of the United States

Do not enter, disturb, destroy, or allow discharge of contaminants into waters of the United States.

## 3.4 PROTECTION OF CULTURAL RESOURCES

### 3.4.1 Archaeological Resources

If, during excavation or other construction activities, any previously unidentified or unanticipated historical, archaeological, and cultural resources are discovered or found, activities that may damage or alter such resources will be suspended. Resources covered by this paragraph include, but are not limited to: any human skeletal remains or burials; artifacts; shell, midden, bone, charcoal, or other deposits; rock or coral alignments, pavings, wall, or other constructed features; and any indication of agricultural or other human activities. Upon such discovery or find, immediately notify the Contracting Officer so that the appropriate authorities may be notified and a determination made as to their significance and what, if any, special disposition of the finds should be made. Cease all activities that may result in impact to or the destruction of these resources. Secure the area and prevent employees or other persons from trespassing on, removing, or otherwise disturbing such resources. The Government retains ownership and control over archaeological resources.

### 3.4.2 Historical Resources

Existing historical resources within the work area are shown on the drawings. Protect these resources and be responsible for their preservation during the life of the Contract.

### 3.5 AIR RESOURCES

Equipment operation, activities, or processes will be in accordance with 40 CFR 64 and state air emission and performance laws and standards.

#### 3.5.1 Preconstruction Air Permits

Notify the Air Program Manager, through the Contracting Officer, at least 6 months prior to bringing equipment, assembled or unassembled, onto the Installation, so that air permits can be secured. Necessary permitting time must be considered in regard to construction activities. Clean Air Act (CAA) permits must be obtained prior to bringing equipment, assembled or unassembled, onto the Installation.

Confirm that these permits have been obtained.

#### 3.5.2 Oil or Dual-fuel Boilers and Furnaces

Provide product data and details for new, replacement, or relocated fuel fired boilers, heaters, or furnaces to the Installation Environmental Office (Air Program Manager) through the Contracting Officer. Data to be reported include: equipment purpose (water heater, building heat, process), manufacturer, model number, serial number, fuel type (oil type, gas type) size (MMBTU heat input). Provide in accordance with paragraph PRECONSTRUCTION AIR PERMITS.

#### 3.5.3 Burning

Burning is prohibited on the Government premises.

#### 3.5.4 Class I and II ODS Prohibition

Class I and II ODS are Government property and must be returned to the Government for appropriate management. Coordinate with the Installation Environmental Office to determine the appropriate location for turn in of all reclaimed refrigerant.

#### 3.5.5 Accidental Venting of Refrigerant

Accidental venting of a refrigerant is a release and must be reported immediately to the Contracting Officer.

#### 3.5.6 EPA Certification Requirements

Heating and air conditioning technicians must be certified through an EPA-approved program. Maintain copies of certifications at the employees' places of business; technicians must carry certification wallet cards, as provided by environmental law.

#### 3.5.7 Dust Control

Keep dust down at all times, including during nonworking periods. Sprinkle or treat, with dust suppressants, the soil at the site, haul roads, and other areas disturbed by operations. Dry power brooming will not be permitted. Instead, use vacuuming, wet mopping, wet sweeping, or wet power brooming. Air blowing will be permitted only for cleaning nonparticulate debris such as steel reinforcing bars. Only wet cutting will be permitted for cutting concrete blocks, concrete, and bituminous concrete. Do not unnecessarily shake bags of cement, concrete mortar, or

plaster.

#### 3.5.7.1 Particulates

Dust particles, aerosols and gaseous by-products from construction activities, and processing and preparation of materials (such as from asphaltic batch plants) must be controlled at all times, including weekends, holidays, and hours when work is not in progress. Maintain excavations, stockpiles, haul roads, permanent and temporary access roads, plant sites, spoil areas, borrow areas, and other work areas within or outside the project boundaries free from particulates that would exceed 40 CFR 50, state, and local air pollution standards or that would cause a hazard or a nuisance. Sprinkling, chemical treatment of an approved type, baghouse, scrubbers, electrostatic precipitators, or other methods will be permitted to control particulates in the work area. Sprinkling, to be efficient, must be repeated to keep the disturbed area damp. Provide sufficient, competent equipment available to accomplish these tasks. Perform particulate control as the work proceeds and whenever a particulate nuisance or hazard occurs. Comply with state and local visibility regulations.

#### 3.5.7.2 Abrasive Blasting

Blasting operations cannot be performed without prior approval of the Installation Air Program Manager. The use of silica sand is prohibited in sandblasting.

Provide tarpaulin drop cloths and windscreens to enclose abrasive blasting operations to confine and collect dust, abrasive agent, paint chips, and other debris. Perform work involving removal of hazardous material in accordance with 29 CFR 1910.

#### 3.5.8 Odors

Control odors from construction activities. The odors must be in compliance with state regulations and local ordinances and may not constitute a health hazard.

### 3.6 WASTE MINIMIZATION

Minimize the use of hazardous materials and the generation of waste. Include procedures for pollution prevention/ hazardous waste minimization in the Hazardous Waste Management Section of the EPP. Obtain a copy of the installation's Pollution Prevention/Hazardous Waste Minimization Plan for reference material when preparing this part of the EPP. If no written plan exists, obtain information by contacting the Contracting Officer. Describe the anticipated types of the hazardous materials to be used in the construction when requesting information.

#### 3.6.1 Salvage, Reuse and Recycle

Identify anticipated materials and waste for salvage, reuse, and recycling. Describe actions to promote material reuse, resale or recycling. To the extent practicable, all scrap metal must be sent for reuse or recycling and will not be disposed of in a landfill.

Include the name, physical address, and telephone number of the hauler, if transported by a franchised solid waste hauler. Include the destination and, unless exempted, provide a copy of the state or local permit (cover)

or license for recycling.

### 3.6.2 Nonhazardous Solid Waste Diversion Report

Maintain an inventory of nonhazardous solid waste diversion and disposal of construction and demolition debris. Submit a report to the Contracting Officer on the first working day after each fiscal year quarter, starting the first quarter that nonhazardous solid waste has been generated. Include the following in the report:

Construction and Demolition (C&D) Debris Disposed	tons, as appropriate
C&D Debris Recycled	tons, as appropriate
Total C&D Debris Generated	tons, as appropriate
Waste Sent to Waste-To-Energy Incineration Plant (This amount should not be included in the recycled amount)	tons, as appropriate

## 3.7 WASTE MANAGEMENT AND DISPOSAL

### 3.7.1 [Waste Determination Documentation](#)

Complete a Waste Determination form (provided at the pre-construction conference) for Contractor-derived wastes to be generated. All potentially hazardous solid waste streams that are not subject to a specific exclusion or exemption from the hazardous waste regulations (e.g. scrap metal, domestic sewage) or subject to special rules, (lead-acid batteries and precious metals) must be characterized in accordance with the requirements of [40 CFR 261](#) or corresponding applicable state or local regulations. Base waste determination on user knowledge of the processes and materials used, and analytical data when necessary. Consult with the Installation environmental staff for guidance on specific requirements. Attach support documentation to the Waste Determination form. As a minimum, provide a Waste Determination form for the following waste (this listing is not inclusive): oil- and latex -based painting and caulking products, solvents, adhesives, aerosols, petroleum products, and containers of the original materials.

### 3.7.2 Solid Waste Management

#### 3.7.2.1 [Solid Waste Management Report](#)

Provide copies of the waste handling facilities' weight tickets, receipts, bills of sale, and other [sales documentation](#). In lieu of sales documentation, a statement indicating the disposal location for the solid waste that is signed by an employee authorized to legally obligate or bind the firm may be submitted. The sales documentation [Contractor certification](#) must include the receiver's tax identification number and business, EPA or state registration number, along with the receiver's delivery and business addresses and telephone numbers. For each solid

waste retained for the Contractor's own use, submit the information previously described in this paragraph on the solid waste disposal report. Prices paid or received do not have to be reported to the Contracting Officer unless required by other provisions or specifications of this Contract or public law.

### 3.7.2.2 Control and Management of Solid Wastes

Pick up solid wastes, and place in covered containers that are regularly emptied. Do not prepare or cook food on the project site. Prevent contamination of the site or other areas when handling and disposing of wastes. At project completion, leave the areas clean. Employ segregation measures so that no hazardous or toxic waste will become co-mingled with non-hazardous solid waste. Haul waste materials to the Government landfill site designated by the Contracting Officer. Solid waste disposal offsite must comply with most stringent local, state, and federal requirements, including 40 CFR 241, 40 CFR 243, and 40 CFR 258.

Manage hazardous material used in construction, including but not limited to, aerosol cans, waste paint, cleaning solvents, contaminated brushes, and used rags, in accordance with 49 CFR 173.

### 3.7.3 Control and Management of Hazardous Waste

Do not dispose of hazardous waste on Government property. Do not discharge any waste to a sanitary sewer, storm drain, or to surface waters or conduct waste treatment or disposal on Government property without written approval of the Contracting Officer.

#### 3.7.3.1 Hazardous Waste/Debris Management

Identify construction activities that will generate hazardous waste or debris. Provide a documented waste determination for resultant waste streams. Identify, label, handle, store, and dispose of hazardous waste or debris in accordance with federal, state, and local regulations, including 40 CFR 261, 40 CFR 262, 40 CFR 263, 40 CFR 264, 40 CFR 265, 40 CFR 266, and 40 CFR 268.

Manage hazardous waste in accordance with the approved Hazardous Waste Management Section of the EPP. Store hazardous wastes in approved containers in accordance with 49 CFR 173 and 49 CFR 178. Hazardous waste generated within the confines of Government facilities is identified as being generated by the Government. Prior to removal of any hazardous waste from Government property, hazardous waste manifests must be signed by personnel from the Installation Environmental Office. Do not bring hazardous waste onto Government property. Provide the Contracting Officer with a copy of waste determination documentation for any solid waste streams that have any potential to be hazardous waste or contain any chemical constituents listed in 40 CFR 372-SUBPART D.

#### 3.7.3.2 Waste Storage/Satellite Accumulation/90 Day Storage Areas

Accumulate hazardous waste at satellite accumulation points and in compliance with 40 CFR 262.34 and applicable state or local regulations. Individual waste streams will be limited to 55 gallons of accumulation (or 1 quart for acutely hazardous wastes). If the Contractor expects to generate hazardous waste at a rate and quantity that makes satellite accumulation impractical, the Contractor may request a temporary 90 day accumulation point be established. Submit a request in writing to the

Contracting Officer and provide the following information (Attach Site Plan to the Request):

Contract Number	
Contractor	
Haz/Waste or Regulated Waste POC	
Phone Number	
Type of Waste	
Source of Waste	
Emergency POC	
Phone Number	
Location of the Site	

Attach a Waste Determination form for the expected waste streams. Allow 10 working days for processing this request. Additional compliance requirements (e.g. training and contingency planning) that may be required are the responsibility of the Contractor. Barricade the designated area where waste is being stored and post a sign identifying as follows:

"DANGER - UNAUTHORIZED PERSONNEL KEEP OUT"

### 3.7.3.3 Hazardous Waste Disposal

#### 3.7.3.3.1 Responsibilities for Contractor's Disposal

Provide hazardous waste manifest to the Installations Environmental Office for review, approval, and signature prior to shipping waste off Government property.

##### 3.7.3.3.1.1 Services

Provide service necessary for the final treatment or disposal of the hazardous material or waste in accordance with 40 CFR 260, local, and state, laws and regulations, and the terms and conditions of the Contract within 60 days after the materials have been generated. These services include necessary personnel, labor, transportation, packaging, detailed analysis (if required for disposal or transportation, include manifesting or complete waste profile sheets, equipment, and compile documentation).

##### 3.7.3.3.1.2 Samples

Obtain a representative sample of the material generated for each job done to provide waste stream determination.

##### 3.7.3.3.1.3 Analysis

Analyze each sample taken and provide analytical results to the Contracting Officer. See paragraph WASTE DETERMINATION DOCUMENTATION.

#### 3.7.3.3.1.4 Labeling

Determine the Department of Transportation's (DOT's) proper shipping names for waste (each container requiring disposal) and demonstrate to the Contracting Officer how this determination is developed and supported by the sampling and analysis requirements contained herein. Label all containers of hazardous waste with the words "Hazardous Waste" or other words to describe the contents of the container in accordance with 40 CFR 262.31 and applicable state or local regulations.

#### 3.7.3.4 Universal Waste Management

Manage the following categories of universal waste in accordance with federal, state, and local requirements and installation instructions:

- a. Batteries as described in 40 CFR 273.2
- b. Lamps as described in 40 CFR 273.5
- c. Mercury-containing equipment as described in 40 CFR 273.4

Mercury is prohibited in the construction of this facility, unless specified otherwise, and with the exception of mercury vapor lamps and fluorescent lamps. Dumping of mercury-containing materials and devices such as mercury vapor lamps, fluorescent lamps, and mercury switches, in rubbish containers is prohibited. Remove without breaking, pack to prevent breakage, and transport out of the activity in an unbroken condition for disposal as directed.

#### 3.7.3.5 Electronics End-of-Life Management

Recycle or dispose of electronics waste, including, but not limited to, used electronic devices such computers, monitors, hard-copy devices, televisions, mobile devices, in accordance with 40 CFR 260-262, state, and local requirements, and installation instructions.

#### 3.7.3.6 Disposal Documentation for Hazardous and Regulated Waste

Contact the Contracting Officer for the facility RCRA identification number that is to be used on each manifest.

Submit a copy of the applicable EPA and or state permit(s), manifest(s), or license(s) for transportation, treatment, storage, and disposal of hazardous and regulated waste by permitted facilities. Hazardous or toxic waste manifests must be reviewed, signed, and approved by the Contracting Officer before the Contractor may ship waste. To obtain specific disposal instructions, coordinate with the Installation Environmental Office. Refer to Section 01 57 19.01 20 SUPPLEMENTAL TEMPORARY ENVIRONMENTAL CONTROLS for the Installation Point of Contact information.

#### 3.7.4 Releases/Spills of Oil and Hazardous Substances

##### 3.7.4.1 Response and Notifications

Exercise due diligence to prevent, contain, and respond to spills of hazardous material, hazardous substances, hazardous waste, sewage, regulated gas, petroleum, lubrication oil, and other substances regulated in accordance with 40 CFR 300. Maintain spill cleanup equipment and materials at the work site. In the event of a spill, take prompt,

effective action to stop, contain, curtail, or otherwise limit the amount, duration, and severity of the spill/release. In the event of any releases of oil and hazardous substances, chemicals, or gases; immediately (within 15 minutes) notify the Installation Fire Department, the Installation Command Duty Officer, the Installation Environmental Office, the Contracting Officer and the state or local authority.

Submit verbal and written notifications as required by the federal ( 40 CFR 300.125 and 40 CFR 355), state, local regulations and instructions. Provide copies of the written notification and documentation that a verbal notification was made within 20 days. Spill response must be in accordance with 40 CFR 300 and applicable state and local regulations. Contain and clean up these spills without cost to the Government.

#### 3.7.4.2 Clean Up

Clean up hazardous and non-hazardous waste spills. Reimburse the Government for costs incurred including sample analysis materials, clothing, equipment, and labor if the Government will initiate its own spill cleanup procedures, for Contractor- responsible spills, when: Spill cleanup procedures have not begun within one hour of spill discovery/occurrence; or, in the Government's judgment, spill cleanup is inadequate and the spill remains a threat to human health or the environment.

#### 3.7.5 Mercury Materials

Immediately report to the Environmental Office and the Contracting Officer instances of breakage or mercury spillage. Clean mercury spill area to the satisfaction of the Contracting Officer.

Do not recycle a mercury spill cleanup; manage it as a hazardous waste for disposal.

#### 3.7.6 Wastewater

##### 3.7.6.1 Disposal of wastewater must be as specified below.

##### 3.7.6.1.1 Treatment

Do not allow wastewater from construction activities, such as onsite material processing, concrete curing, foundation and concrete clean-up, water used in concrete trucks, and forms to enter water ways or to be discharged prior to being treated to remove pollutants. Dispose of the construction- related waste water off-Government property in accordance with 40 CFR 403, state, regional, and local laws and regulations.

##### 3.7.6.1.2 Surface Discharge

For discharge of ground water, Surface discharge in accordance with the requirements of the NPDES or state STORMWATER DISCHARGES FROM CONSTRUCTION SITES permit.

##### 3.7.6.1.3 Land Application

Water generated from the flushing of lines after disinfection or disinfection in conjunction with hydrostatic testing must be land- applied in accordance with federal, state, and local laws and regulations for land



application.

### 3.8 HAZARDOUS MATERIAL MANAGEMENT

Include hazardous material control procedures in the Safety Plan, in accordance with Section 01 35 26 GOVERNMENTAL SAFETY REQUIREMENTS. Address procedures and proper handling of hazardous materials, including the appropriate transportation requirements. Do not bring hazardous material onto Government property that does not directly relate to requirements for the performance of this contract. Submit an SDS and estimated quantities to be used for each hazardous material to the Contracting Officer prior to bringing the material on the installation. Typical materials requiring SDS and quantity reporting include, but are not limited to, oil and latex based painting and caulking products, solvents, adhesives, aerosol, and petroleum products. Use hazardous materials in a manner that minimizes the amount of hazardous waste generated. Containers of hazardous materials must have National Fire Protection Association labels or their equivalent. Certify that hazardous materials removed from the site are hazardous materials and do not meet the definition of hazardous waste, in accordance with 40 CFR 261.

### 3.9 PREVIOUSLY USED EQUIPMENT

Clean previously used construction equipment prior to bringing it onto the project site. Equipment must be free from soil residuals, egg deposits from plant pests, noxious weeds, and plant seeds. Consult with the U.S. Department of Agriculture jurisdictional office for additional cleaning requirements.

### 3.10 CONTROL AND MANAGEMENT OF ASBESTOS-CONTAINING MATERIAL (ACM)

Manage and dispose of asbestos- containing waste in accordance with 40 CFR 61. Due to the age of the buildings being demolished, asbestos-containing material (ACM) may be present. No Renovation/Demolition shall begin prior to CE Approval and Asbestos Sampling as required. If suspected ACM is encountered, and will be disturbed, then asbestos abatement of the area to be renovated must be completed prior to starting the proposed work on the building. NOTE: NESHAP Notification to the Albuquerque Environmental Health Department Air Quality Division in accordance with 20.11.20.22 NMAC is required for ACM disturbance. All asbestos waste leaving the installation must be accompanied by a signed manifest. Civil Engineering is the only authorized manifest signatory. Prior to hauling asbestos waste, contact your CE project Manager or Toxics Program POC for direction.

### 3.11 CONTROL AND MANAGEMENT OF LEAD-BASED PAINT (LBP)

Manage and dispose of lead-contaminated waste in accordance with 40 CFR 745. Due to the age of the building, LBP may be present; files are available for review. Contact Toxics Program POC to coordinate access to files. If suspected LBP is encountered and will be disturbed, LBP sampling should be performed by the contractor with abatement as necessary prior to commencing the proposed work on the building. Manifest any lead-contaminated waste and provide the manifest to the Contracting Officer.

### 3.12 CONTROL AND MANAGEMENT OF LIGHTING BALLAST AND LAMPS CONTAINING PCBS

Manage and dispose of contaminated waste in accordance with 40 CFR 761.

### 3.13 MILITARY MUNITIONS

In the event military munitions, as defined in 40 CFR 260, are discovered or uncovered, immediately stop work in that area and immediately inform the Contracting Officer.

### 3.14 PETROLEUM, OIL, LUBRICANT (POL) STORAGE AND FUELING

POL products include flammable or combustible liquids, such as gasoline, diesel, lubricating oil, used engine oil, hydraulic oil, mineral oil, and cooking oil. Store POL products and fuel equipment and motor vehicles in a manner that affords the maximum protection against spills into the environment. Manage and store POL products in accordance with EPA 40 CFR 112, and other federal, state, regional, and local laws and regulations. Use secondary containments, dikes, curbs, and other barriers, to prevent POL products from spilling and entering the ground, storm or sewer drains, stormwater ditches or canals, or navigable waters of the United States. Describe in the EPP (see paragraph ENVIRONMENTAL PROTECTION PLAN) how POL tanks and containers must be stored, managed, and inspected and what protections must be provided. Storage of fuel on the project site must be in accordance with EPA, state, and local laws and regulations and paragraph OIL STORAGE INCLUDING FUEL TANKS.

#### 3.14.1 Used Oil Management

Manage used oil generated on site in accordance with 40 CFR 279. Determine if any used oil generated while onsite exhibits a characteristic of hazardous waste. Used oil containing 1,000 parts per million of solvents is considered a hazardous waste and disposed of at the Contractor's expense. Used oil mixed with a hazardous waste is also considered a hazardous waste. Dispose in accordance with paragraph HAZARDOUS WASTE DISPOSAL.

#### 3.14.2 Oil Storage Including Fuel Tanks

Provide secondary containment and overfill protection for oil storage tanks. A berm used to provide secondary containment must be of sufficient size and strength to contain the contents of the tanks plus 5 inches freeboard for precipitation. Construct the berm to be impervious to oil for 72 hours that no discharge will permeate, drain, infiltrate, or otherwise escape before cleanup occurs. Use drip pans during oil transfer operations; adequate absorbent material must be onsite to clean up any spills and prevent releases to the environment. Cover tanks and drip pans during inclement weather. Provide procedures and equipment to prevent overfilling of tanks. If tanks and containers with an aggregate aboveground capacity greater than 1320 gallons will be used onsite (only containers with a capacity of 55 gallons or greater are counted), provide and implement a SPCC plan meeting the requirements of 40 CFR 112. Do not bring underground storage tanks to the installation for Contractor use during a project. Submit the SPCC plan to the Contracting Officer for approval.

Monitor and remove any rainwater that accumulates in open containment dikes or berms. Inspect the accumulated rainwater prior to draining from a containment dike to the environment, to determine there is no oil sheen present.

3.15 INADVERTENT DISCOVERY OF PETROLEUM-CONTAMINATED SOIL OR HAZARDOUS WASTES

If petroleum-contaminated soil, or suspected hazardous waste is found during construction that was not identified in the Contract documents, immediately notify the Contracting Officer. Do not disturb this material until authorized by the Contracting Officer.

3.16 CHLORDANE

Evaluate excess soils and concrete foundation debris generated during the demolition of housing units or other wooden structures for the presence of chlordane or other pesticides prior to reuse or final disposal.

3.17 SOUND INTRUSION

Make the maximum use of low-noise emission products, as certified by the EPA. Blasting or use of explosives are not permitted without written permission from the Contracting Officer, and then only during the designated times. Confine pile-driving operations to the period between 8 a.m. and 4 p.m., Monday through Friday, exclusive of holidays, unless otherwise specified.

Keep construction activities under surveillance and control to minimize environment damage by noise. Comply with the provisions of the State of New Mexico rules.

3.18 POST CONSTRUCTION CLEANUP

Clean up areas used for construction in accordance with Contract Clause: "Cleaning Up". Unless otherwise instructed in writing by the Contracting Officer, remove traces of temporary construction facilities such as haul roads, work area, structures, foundations of temporary structures, stockpiles of excess or waste materials, and other vestiges of construction prior to final acceptance of the work. Grade parking area and similar temporarily used areas to conform with surrounding contours.

-- End of Section --

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SECTION 01 58 00

PROJECT IDENTIFICATION

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 WOOD PROTECTION ASSOCIATION (AWPA)

AWPA C1 (2003) All Timber Products - Preservative Treatment by Pressure Processes

AWPA C2 (2003) Lumber, Timber, Bridge Ties and Mine Ties - Preservative Treatment by Pressure Processes

U.S. ARMY CORPS OF ENGINEERS (USACE)

EP 310-1-6a (2006) Sign Standards Manual, VOL 1

ECB 2020-1 (2020) USACE Construction Project Signs and Use of the Army Star

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 that will review the submittal for the Government. Submittals with an "S" are for inclusion in the Sustainability Notebook, in conformance to Section 01 33 29 SUSTAINABILITY REPORTING. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-02 Shop Drawings

Preliminary One Line Drawings Of Project Rendering; G

Sign Legend Orders; G

SD-04 Samples

Final Rendering Sample; G

Final Framed Rendering and Copies; G

1.3 QUALITY ASSURANCE

1.3.1 Rendering

Provide the project rendering in accordance with the following drawing stages as required in the paragraph SUBMITTALS. The following submittal data is required to properly identify the appropriate view and approve the

final rendering of the facility. The final painted rendering will be used to produce the image for the signboard and framed photographic copies provided to the Contracting Officer.

#### 1.3.1.1 Preliminary One Line Drawings

Provide three different views of the facility in a preliminary single line drawing (black and white) format. These three views will represent the best angles at which to view the proposed facility showing the best design features and the three-dimensional character of the facility.

#### 1.3.1.2 Final Rendering Sample

Provide a photographic copy (8 by 10 inches minimum size) of final rendering for approval of color, landscaping, and foreground/background development prior to final submittal.

#### 1.3.1.3 Final Framed Rendering and Copies

Provide final full color rendering of the proposed facility as specified.

### 1.4 PROJECT SIGN

Prior to initiating any work on site, provide one project identification sign at the location designated. Construct the sign in accordance with project sign detail, which can be downloaded at: <http://www.wbdg.org/ffc/dod/unified-facilities-guide-specifications-ufgs/forms-graphics-tables>. Maintain sign throughout the life of the project. Upon completion of the project, remove the sign from the site. The Government will temporarily supply a copy of the rendering to use in the production of the final signboard artwork. Reproduce the rendering on the signboard.

On the project sign, provide points of contact for the Design Safety Coordinator and the Construction Safety Officer.

Furnish the construction project sign package, maintain the signs during construction, and remove the signs from the job site upon completion of the project. The construction project sign package consists of two signs: one for project identification and the other to show the on-the-job safety performance of the contractor. Ensure that the package conforms to the requirements of EP 310-1-6a and USACE ECB 2020-1. Submit the sign legend orders as described in Section 16 of EP 310-1-6a and USACE ECB 2020-1 before erecting the signs.

#### 1.4.1 Project Identification Signboard

Provide a project identification signboard in accordance with attached EP 310-1-6a and USACE ECB 2020-1. Provide a preliminary drawing indicating layout and text content. Erect a signboard at a conspicuous location on the job site where directed by the Contracting Officer.

- a. The field of the sign consists of a 4-foot by 8-foot sheet of grade B-B medium density overlaid exterior plywood.
- b. Lumber is B or better Southern pine, pressure-preservative treated in accordance with AWPA C1 and AWPA C2. Nails are aluminum or galvanized steel.

- c. Give one coat of exterior alkyd primer and two coats of exterior alkyd enamel paint to the entire signboard and supports. Perform the lettering and sign work by a skilled sign painter using paint known in the trade as bulletin colors. The colors, lettering sizes, and lettering styles are as indicated. Where preservative-treated lumber is required, utilize only cured pressure-treated wood which has had the chemicals leached from the surface of the wood prior to painting.
- d. Use spray applied automotive quality high gloss acrylic white enamel paint as background for the USACE logo. USACE logo is an applied 2 mil film sticker/decals with either transparent or white background or paint the logo by stencil onto the sign. The weather resistant sticker/decals film is rated for a minimum of 2-year exterior vertical exposure. Mount the self-adhering sticker to the sign with pressure sensitive, permanent acrylic adhesive. Shop cut sticker/decals to rectangular shape and provide pull-off backing sheet on adhesive side of design sticker for shipping.
- e. Final signboard artwork (rendering) may be either mounted under plexiglass as indicated in attached Plates 2 and 5 or may be electrostatically printed on 4 mil self-adhering, weather resistant, glossy vinyl film and mounted to signboard. Provide film that is capable of full color reproduction of the building rendering and cover it with an ultra-violet protection film. Laminate the 2-mil satin gloss clear protection film to the white 4 mil vinyl image film. Utilize pressure sensitive "controltac" adhesive to attach rendering to signboard and smooth out surface with hand pressure tools in accordance with manufacturer's recommendations. Shop cut sticker to size required and provide pull-off backing sheet on adhesive side of film for shipping. Provide the rendering on film that is rated for a minimum of 2 years exterior vertical exposure.

## PART 2 PRODUCTS

Not Used

## PART 3 EXECUTION

### 3.1 GENERAL

Reference [EP 310-1-6a](#) and [USACE ECB 2020-1](#) during construction of signs.

### 3.2 BULLETIN BOARD

Immediately upon beginning of work under this contract, the Contractor shall provide a weatherproof glass-covered bulletin board not less than 36 inches by 48 inches in size, for displaying the Equal Employment Opportunity Poster, a copy of the wage decision contained in the contract, Wage Rate Information Poster, and other information approved by the Contracting Officer. The bulletin board shall be located at the site of work in a conspicuous place easily accessible to all employees as approved by the Contracting Officer. Legible copies of the aforementioned data shall be displayed until work under the contract is complete. Upon completion of work under this contract the bulletin board shall be removed by and remain the property of the Contractor.

### 3.3 PROJECT SIGN

The Contractor shall furnish and erect a project sign in the location as

hereinbefore specified. Details of construction shall be as shown on the drawings attached at the end of this section. The sign shall be constructed of 1/2-inch-thick, grade A-C, exterior type plywood. The sign shall receive two coats of dark blue, semigloss, exterior type enamel, color number 25053, as shown in Federal Standard 595b, Notice 1. Lettering shall be as shown on the drawings and shall be an approved white, semigloss, exterior type enamel. Upon completion of work under this contract, the project sign shall be removed from the job site and shall remain the property of the Contractor.

### 3.4 PROJECT SAFETY SIGN

The Contractor shall furnish and erect a project safety sign at the Contractor's field office. The safety sign shall be located in a conspicuous place easily within view of all employees and visitors as approved by the Contracting Officer. Details of construction shall be as shown on the drawings attached at the end of this section. The sign shall be constructed of 3/4-inch-thick, grade A-C, exterior-type plywood. The sign shall receive two coats of an approved white, semigloss, exterior type enamel. Lettering shall be as shown on the drawings and shall be semigloss, exterior type enamel of the colors noted on the drawings. The Contractor will be furnished and apply a red decal of the Corps of Engineers' Castle or may use a stencil in lieu of a decal provided the dimensions are the same. The Contractor will be furnished a Zero Accident logo decal. Decals shall receive a thin coat of clear spar varnish after application. If a stencil is used, the castle shall be painted with an approved red, semigloss, exterior type, enamel. The Contractor shall furnish a sufficient number of sign numbers to cover the length of the contract period and to keep both numbered spaces up to date. The Contractor shall keep the safety sign current by posting the numbers daily in both slots (lines 5 and 6 of sign). Numbers shall be red and the size indicated on the drawing and shall be of a weatherproof material. Upon completion of work under this contract, the project safety sign shall be removed from the Government-controlled land and remain the property of the Contractor.

-- 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.

**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" Castre).  
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  
Maximum line length: 19"

**Legend Group 4:** One- to three-line project title legend describes the work being done under this contract.  
Color: Black  
Typeface: 3" Helvetica  
Maximum line length: 19"

**Legend Group 4:** One- to three-line project title legend describes the work being done under this contract.  
Color: Black  
Typeface: 3" Helvetica  
Maximum line length: 19"

**Legend Group 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.

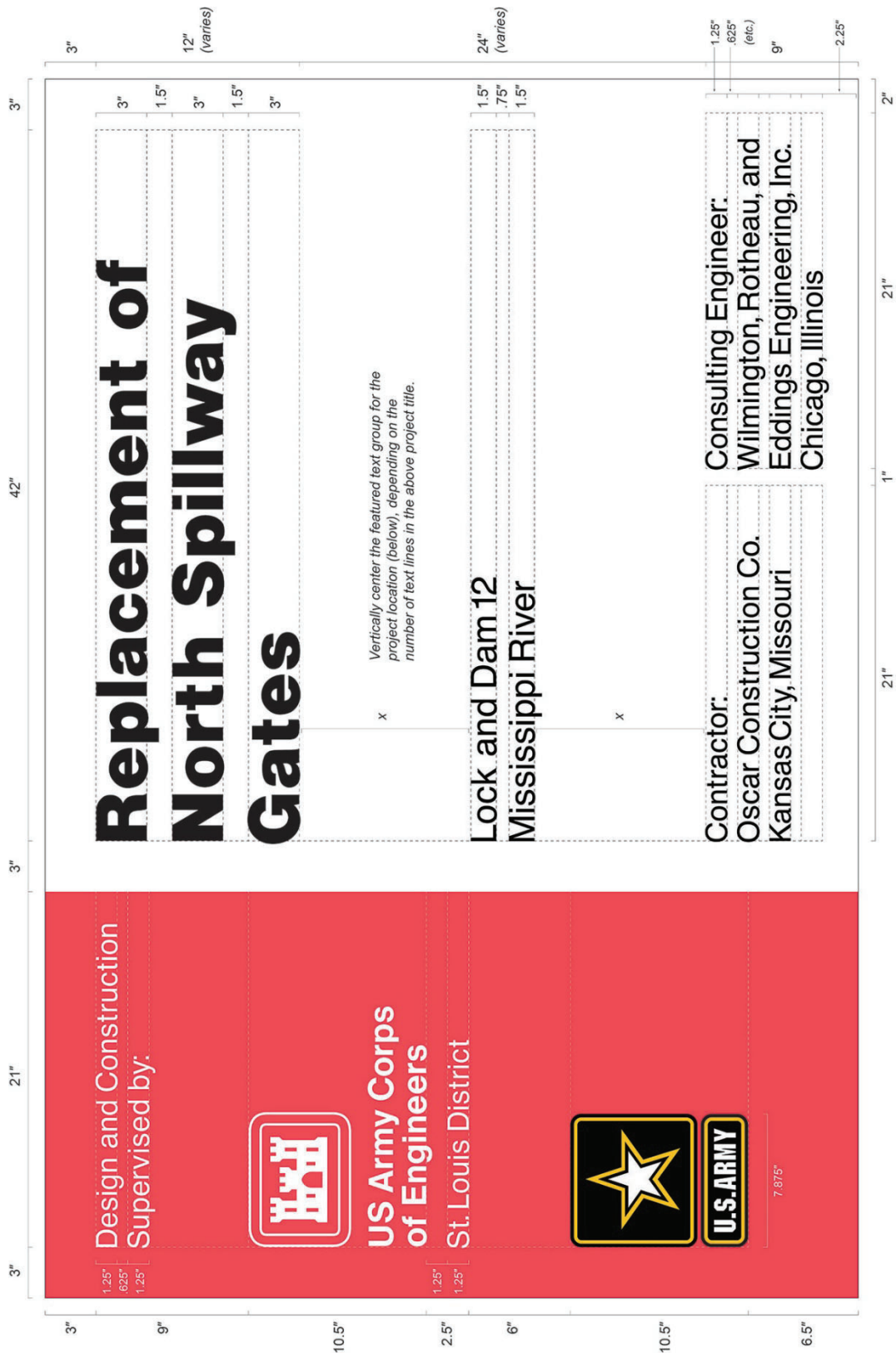
**Signage Layouts have been Superseded by USACE Engineering and Construction Bulletin (ECB) 2020-1. See Attached Layouts.**

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

ATTACHMENT A: Example Graphic of Signage with Dimensions for MILCON Project



ATTACHMENT B: Example Graphic of Signage with Dimensions for Civil Works Project



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 typefaces 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

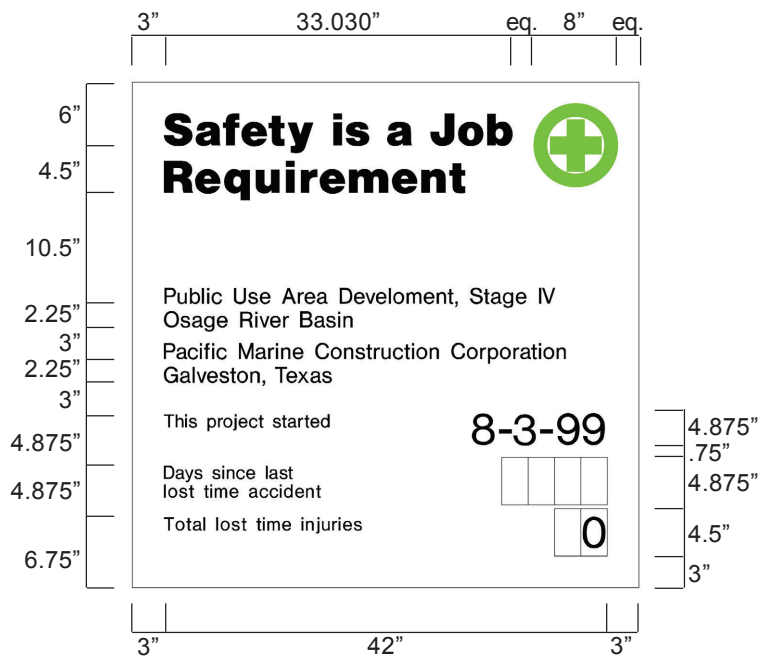
Legend Group 2: One- to two-line project title legend describes the work being done under this contract and name of host project.  
Color: Black  
Typeface: 1.5" Helvetica Regular  
Maximum line length: 42"

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"

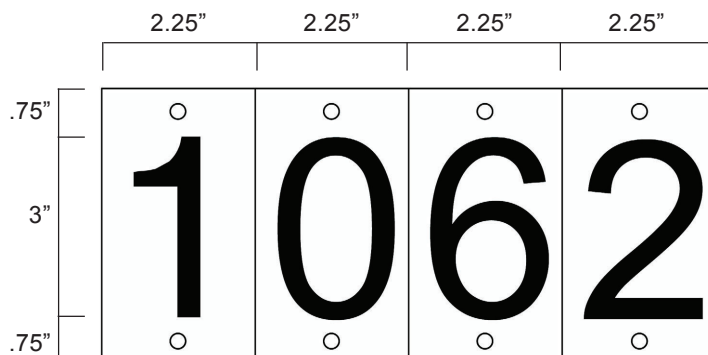
Legend Group 4: Standard safety record captions as shown.  
Color: Black  
Typeface: 1.25" Helvetica Regular

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.



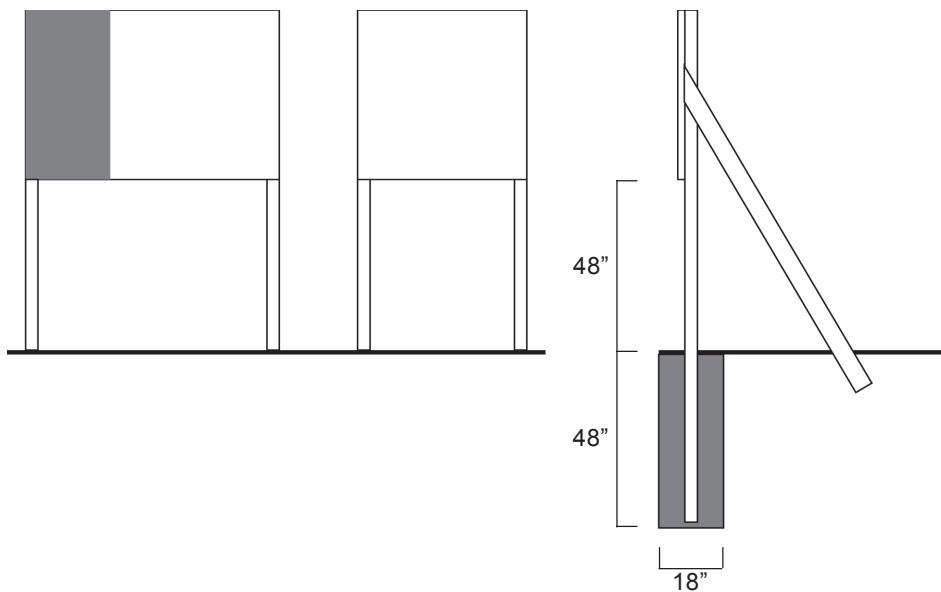
Sign Type	Legend Size (A)	Panel Size	Post Size	Specification Code	Mounting Height	Color Bkg/Lgd
CID-02	various	4'x4'	4"x4"	HDO-3	48"	WH/BK-SG





For additional information on the proper method to prepare sign panel graphics, contact the district Sign Program Manager.

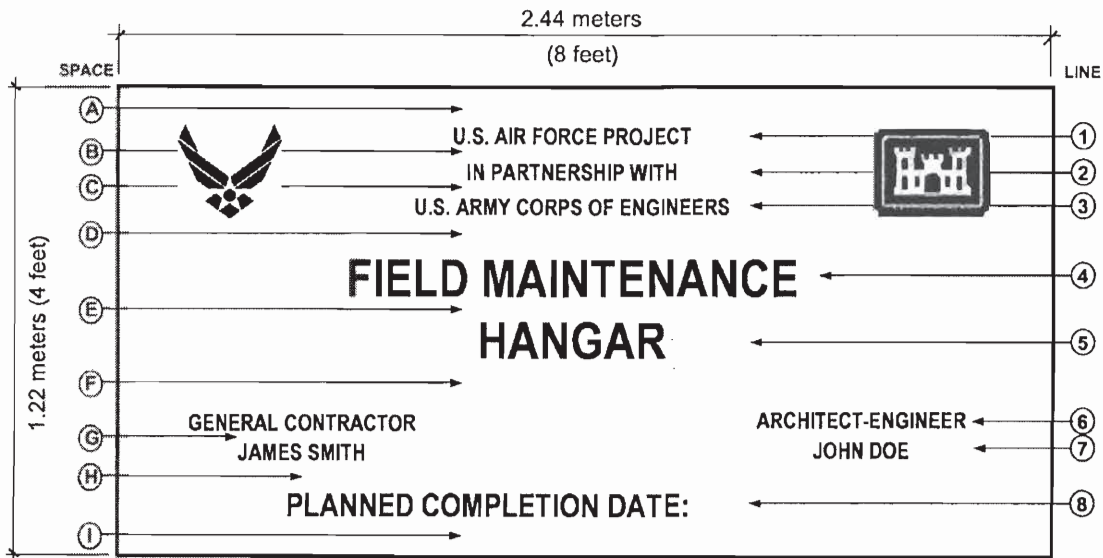
Assemble sign panel and uprights. Imbed assembled sign panel and uprights in 4' hole. Local soil conditions and/or wind loading may require bolting additional 2" x 4" struts on inside face of uprights to reinforce installation as shown.



1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

1. |

2. |



Space	Height	Line	Description	Letter Height	Stroke
A	102 mm (4 in)	1	U.S. AIR FORCE PROJECT	38 mm (1.5 in)	5 mm (0.1875 in)
B	51 mm (2 in)	2	IN PARTNERSHIP WITH	38 mm (1.5 in)	5 mm (0.1875 in)
C	51 mm (2 in)	3	U.S. ARMY CORPS OF ENGINEERS	38 mm (1.5 in)	5 mm (0.1875 in)
D	127 mm (5 in)	4	PROJECT NAME	102 mm (4 in)	13 mm (0.5 in)
E	76 mm (3 in)	5	PROJECT NAME CONT'D (IF REQUIRED)	102 mm (4 in)	13 mm (0.5 in)
F	127 mm (5 in)	6	GENERAL CONTRACTOR/A-E	38 mm (1.5 in)	5 mm (0.1875 in)
G	25 mm (1 in)	7	GENERAL CONTRACTOR/A-E	38 mm (1.5 in)	5 mm (0.1875 in)
H	102 mm (4 in)	8	PLANNED COMPLETION DATE	63 mm (2.5 in)	6 mm (0.25 in)

NOTE: U.S. AIR FORCE LOGO AND LETTERING TO BE BLUE ON WHITE BACKGROUND.

## PROJECT IDENTIFICATION - U.S. AIR FORCE PROJECTS

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**US Army Corps  
of Engineers®**

# ENGINEERING AND CONSTRUCTION BULLETIN

**No.** 2020-1

**Issuing Office:** CECW-EC

**Issued:** 31 Jan 20

**Expires:** 31 Jan 22

**SUBJECT:** USACE Construction Project Signs and Use of the Army Star

**CATEGORY:** Directive and Policy

## 1. References:

- a. Engineer Pamphlet (EP) 310-1-6a, Sign Standards Manual, VOL 1, 01 June 2006.
- b. Army Regulation (AR) 601-208, The Army Brand and Marketing Program, 16 July 2013.

2. **Purpose.** Provide direction and guidelines regarding use of the Army Star emblem for USACE construction projects signage.

a. **Design.** USACE policy to include guidelines on fabricating, locating, and mounting construction project signs is provided in Engineer Pamphlet (EP) 310-1-6a, Sign Standards Manual, VOL 1, Section 16, dated 01 June 2006. The guidelines for accomplishing all construction projects now includes a requirement to add the Army Star emblem to construction project signs. Accordingly, graphic format guidance on page 16-2 of EP 310-1-6a is hereby modified to incorporate the Army Star logo on construction project signs for all projects, both on and off USACE facilities. For official Army Brand information refer to Army Regulation (AR) 601-208, The Army Brand and Marketing Program, 16 July 2013. The Army Star logo dimensions for height and width of are multiples of four high by three wide. The proper incorporation of the Army Star logo in the standard USACE construction project signage is illustrated in the attached examples of construction project sign graphics.

3. **Directions.** Effective upon release of this ECB, all USACE projects will display signage that features the Army Star logo as part of the overall USACE construction project signage. Construction projects will incorporate the Army Star logo into the standard construction project identification sign, as shown in the attachments. Engineering and construction project specification writers are responsible to update the construction project signage text of their standard contract specification clause to include incorporation of the Army Star logo for all projects. District Sign Program Managers or District or MSC Chiefs of Natural Resources in Operations Division can provide the specific graphics.

4. **Update.** All new requirements will be included in the next appropriate policy document update.

**ECB No. 2020-1**

**SUBJECT:** USACE Construction Project Signs and Use of the Army Star

**5. Points of Contact.** HQUSACE points of contact for this ECB are AJ Jensen, USACE National Sign Program Manager, Mandatory Center of Expertise (MCX), CENWK-OFH-T, (816) 389-3840 and Jennifer L. Kline, P.E., HQUSACE CECW-EC, (202) 761-0076.

//S//

CHRISTINE T. ALTENDORF, P.E., PHD, SES  
Chief, Engineering and Construction  
U.S. Army Corps of Engineers

Encl.

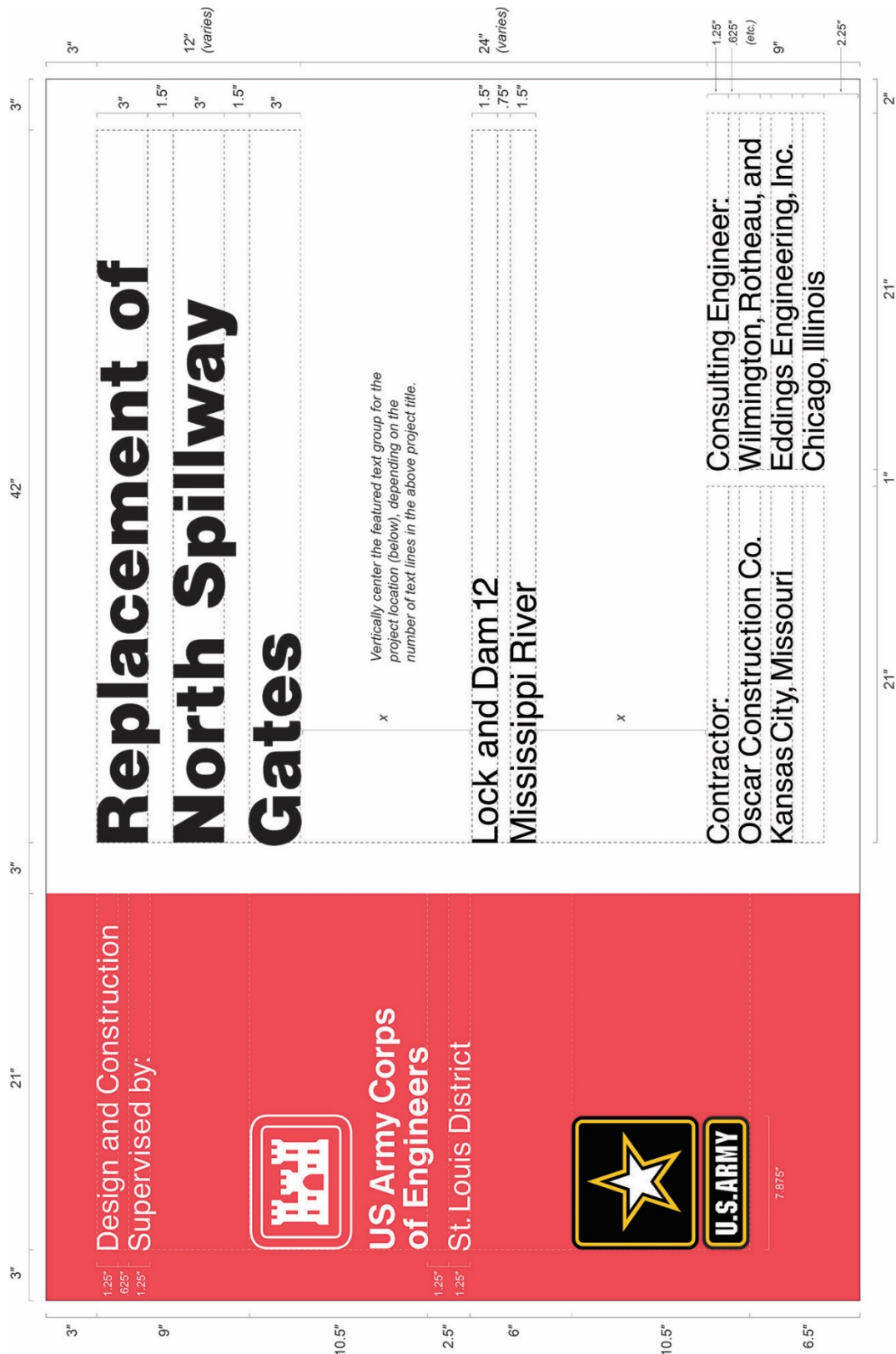
Attachment A – Example Graphic of Signage with Dimensions for MILCON Project

Attachment B – Example Graphic of Signage with Dimensions for Civil Works Project

ATTACHMENT A: Example Graphic of Signage with Dimensions for MILCON Project



ATTACHMENT B: Example Graphic of Signage with Dimensions for Civil Works Project



SECTION 01 62 35

RECYCLED / RECOVERED MATERIALS

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.

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

40 CFR 247

Comprehensive Procurement Guideline for  
Products Containing Recovered Materials

1.2 OBJECTIVES

Government procurement policy is to acquire, in a cost-effective manner, items containing the highest percentage of recycled and recovered materials practicable consistent with maintaining a satisfactory level of competition without adversely affecting performance requirements or exposing suppliers' employees to undue hazards from the recovered materials. The Environmental Protection Agency (EPA) has designated certain items which must contain a specified percent range of recovered or recycled materials. EPA designated products specified in this contract comply with the stated policy and with the EPA guidelines. The Contractor shall make all reasonable efforts to use recycled and recovered materials in providing the EPA designated products and in otherwise utilizing recycled and recovered materials in the execution of the work.

1.3 EPA DESIGNATED ITEMS INCORPORATED IN THE WORK

Various sections of the specifications contain requirements for materials that have been designated by EPA as being products which are or can be made with recovered or recycled materials. These items, when incorporated into the work under this contract, shall contain at least the specified percentage of recycled or recovered materials unless adequate justification (non-availability) for non-use is provided. When a designated item is specified as an option to a non-designated item, the designated item requirements apply only if the designated item is used in the work.

1.4 EPA PROPOSED ITEMS INCORPORATED IN THE WORK

Products other than those designated by EPA are still being researched and are being considered for future Comprehensive Procurement Guideline (CPG) designation. It is recommended that these items, when incorporated in the work under this contract, contain the highest practicable percentage of recycled or recovered materials, provided specified requirements are also met.

1.5 EPA LISTED ITEMS USED IN CONDUCT OF THE WORK BUT NOT INCORPORATED IN  
THE WORK

There are many products listed in 40 CFR 247 which have been designated or proposed by EPA to include recycled or recovered materials that may be used by the Contractor in performing the work but will not be incorporated into the work. These products include office products, temporary traffic control products, and pallets. It is recommended that these non-construction products, when used in the conduct of the work, contain the highest practicable percentage of recycled or recovered materials and that these products be recycled when no longer needed.

-- End of Section --

SECTION 01 72 80

TRANSFER AND ACCEPTANCE OF MILITARY REAL PROPERTY

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of the specification to the extent referenced. The publications are referenced in the text by basic designation only.

U.S. DEPARTMENT OF DEFENSE (DOD)

UFC 1-300-08

(2009, with Change 2, 2011) Criteria for  
Transfer and Acceptance of DoD Real  
Property

1.2 DD FORM 1354

The Contractor shall provide a [Draft DD Form 1354](#) and an [Interim DD Form 1354](#) in accordance with [UFC 1-300-08](#) which accurately accounts for real property improvements required by the design documents, to include demolition. The appropriate information shall be input into all blocks with the exception of Blocks 4, 6, 7a, 10a, 10b, 20, 21, 22, 24, 25, 26 and 27 which shall be left blank and will be filled out by the Government. Real Property Category Codes and units of measure for same may vary between the branches of the military (Army, Navy or Air Force) and those used shall be appropriate to the branch of the military of the end user. A copy of the category code listing will be provided upon request. Remarks shall be provided briefly describing what is being accounted for in each item for all items included on the DD 1354. The [Draft DD Form 1354](#) shall be provided with the 95% design review package for review and, if necessary, correction. The [Interim DD Form 1354](#) shall be provided a minimum of 90 days prior to the anticipated incremental facility turnover date or substantial completion, whichever comes first, for review and if necessary, correction.

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only or as otherwise designated. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section [01 33 00](#) SUBMITTAL PROCEDURES:

[SD-01 Preconstruction Submittals](#)

[Draft DD Form 1354; G](#)

[SD-11 Closeout Submittals](#)

[Interim DD Form 1354; G](#)

#### 1.4 FORMAT

The project shall be broken down into the appropriate six-digit category codes. Each category item shall include the total construction cost. For example, the category code for roads is "851147". The quantities for roads shall be calculated by square yards and lineal feet, and include costs for subbase, base, stabilized aggregate base, prime and tack coat, asphalt surface, and striping. If the road has curb and gutters, the curb and gutters will not be included in this category code breakout as curb and gutters have a different category code. An example DD Form 1354 is attached. A copy of the category code listing will be provided upon request.

#### 1.5 TRANSFER OF MISCELLANEOUS EQUIPMENT

Transfer of other miscellaneous equipment will be recorded on DD Form 1149 in two (2) copies. Copies of the forms will be provided upon request.

#### 1.6 TRANSFER OF INSTALLED PROPERTY

Transfer of installed property shall be recorded by the Contractor and provided with the [Interim DD Form 1354](#). As a minimum, the following information shall be provided: Quantity, Description, Manufacturer, Model Number, Serial Number, Nameplate/Electrical Rating Data, Capacity, Unit Cost, and Total Cost. An electronic version of the form will be provided at the preconstruction conference.

#### PART 2 PRODUCTS

Not Used

#### PART 3 EXECUTION

Not Used

-- End of Section --



## SECTION 01 74 19

### CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT

#### 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.

##### U.S. GREEN BUILDING COUNCIL (USGBC)

##### LEED BD+C

(2009; R 2010) Leadership in Energy and Environmental Design(tm) Building Design and Construction (LEED-NC)

##### LEED GBDC Ref Guide

(2009; R 2010) LEED Reference Guide for Green Building Design, Construction and Major Renovations of Commercial and Institutional Buildings including Core & Shell and K-12 Projects

##### 1.2 GOVERNMENT POLICY

Government policy is to apply sound environmental principles in the design, construction and use of facilities. As part of the implementation of that policy: (1) practice efficient waste management when sizing, cutting, and installing products and materials and (2) use all reasonable means to divert construction and demolition waste from landfills and incinerators and to facilitate their recycling or reuse. Divert a minimum of 60 percent by weight of total project solid waste from the landfill.

##### 1.3 MANAGEMENT

Develop and implement a waste management program. Take a pro-active, responsible role in the management of construction and demolition waste and require all subcontractors, vendors, and suppliers to participate in the effort. Construction and demolition waste includes products of demolition or removal, excess or unusable construction materials, packaging materials for construction products, and other materials generated during the construction process but not incorporated into the work. In the management of waste, consider the availability of viable markets, the condition of the material, the ability to provide the material in suitable condition and in a quantity acceptable to available markets, and time constraints imposed by internal project completion mandates. Implement any special programs involving rebates or similar incentives related to recycling of waste. Revenues or other savings obtained for salvage, or recycling accrue to the Contractor. Appropriately permit firms and facilities used for recycling, reuse, and disposal for the intended use to the extent required by federal, state, and local regulations. Also, provide on-site instruction of appropriate separation, handling, recycling, salvage, reuse, and return methods to be used by all parties at the appropriate stages of the project.

#### 1.4 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. Submittals with an "S" are for inclusion in the Sustainability eNotebook, in conformance to Section 01 33 29 SUSTAINABILITY REPORTING. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

##### SD-01 Preconstruction Submittals

Waste Management Plan; G, ECGE

##### SD-11 Closeout Submittals

Records; S

#### 1.5 MEETINGS

Conduct Construction Waste Management meetings. After award of the Contract and prior to commencement of work, schedule and conduct a meeting with the Contracting Officer to discuss the proposed Waste Management Plan and to develop a mutual understanding relative to the details of waste management. The requirements for this meeting may be fulfilled during the coordination and mutual understanding meeting outlined in Section 01 45 00.00 10 QUALITY CONTROL. At a minimum, discuss environmental and waste management goals and issues at the following additional meetings:

- a. Pre-bid meeting.
- b. Preconstruction meeting.
- c. Regular QC meetings.
- d. Work safety meetings.

#### 1.6 WASTE MANAGEMENT PLAN

Submit a waste management plan within 15 days after notice to proceed and not less than 10 days before the pre-demolition meeting. The plan demonstrates how to meet the the project waste diversion goal. Also, include the following in the plan:

- a. Name of individuals on the Contractor's staff responsible for waste prevention and management.
- b. Actions that will be taken to reduce solid waste generation, including coordination with subcontractors to ensure awareness and participation.
- c. Description of the regular meetings to be held to address waste management.
- d. Description of the specific approaches to be used in recycling/reuse of the various materials generated, including the areas on site and equipment to be used for processing, sorting, and temporary storage of wastes.
- e. Characterization, including estimated types and quantities, of the

waste to be generated.

- f. Name of landfill and/or incinerator to be used and the estimated costs for use, assuming that there would be no salvage or recycling on the project.
- g. Identification of local and regional reuse programs, including non-profit organizations such as schools, local housing agencies, and organizations that accept used materials such as materials exchange networks and Habitat for Humanity. Include the name, location, and phone number for each reuse facility to be used, and provide a copy of the permit or license for each facility.
- h. List of specific waste materials that will be salvaged for resale, salvaged and reused on the current project, salvaged and stored for reuse on a future project, or recycled. Identify the recycling facilities by name, location, and phone number, including a copy of the permit or license for each facility.
- i. Identification of materials that cannot be recycled/reused with an explanation or justification, to be approved by the Contracting Officer.
- j. Description of the means by which any waste materials identified in item (h) above will be protected from contamination.
- k. Description of the means of transportation of the recyclable materials (whether materials will be site-separated and self-hauled to designated centers, or whether mixed materials will be collected by a waste hauler and removed from the site).
- l. Anticipated net cost savings determined by subtracting Contractor program management costs and the cost of disposal from the revenue generated by sale of the materials and the incineration and/or landfill cost avoidance.

Revise and resubmit Plan as required by the Contracting Officer. Approval of Contractor's Plan will not relieve the Contractor of responsibility for compliance with applicable environmental regulations or meeting project cumulative waste diversion requirement. Distribute copies of the Waste Management Plan to each subcontractor, the Quality Control Manager, and the Contracting Officer.

#### 1.7 RECORDS

Maintain records to document the quantity of waste generated; the quantity of waste diverted through sale, reuse, or recycling; and the quantity of waste disposed by landfill or incineration. Keep records in accordance with the [LEED GBDC Ref Guide](#) and using the [LEED BD+C Letter Template](#). Make the records available to the Contracting Officer during construction, and deliver to the Contracting Officer upon completion of the construction a copy of the records.

Demolition accomplished by other parties on this project site count toward the project's total waste diversion cumulative score for [LEED BD+C](#) and for sustainability requirements. Information on the quantity and disposition of these materials will be provided by the Contracting Officer. Include this data in records, annotated to indicate that it was accomplished by another party.

## 1.8 COLLECTION

Separate, store, protect, and handle at the site identified recyclable and salvageable waste products in a manner that maximizes recyclability and salvagability of identified materials. Provide the necessary containers, bins and storage areas to facilitate effective waste management and clearly and appropriately identify them. Provide materials for barriers and enclosures around recyclable material storage areas which are nonhazardous and recyclable or reusable. Locate out of the way of construction traffic. Provide adequate space for pick-up and delivery and convenience to subcontractors. Recycling and waste bin areas are to be kept neat and clean, and handle recyclable materials to prevent contamination of materials from incompatible products and materials. Clean contaminated materials prior to placing in collection containers. Use cleaning materials that are nonhazardous and biodegradable. Handle hazardous waste and hazardous materials in accordance with applicable regulations and coordinate with Section 01 57 19 TEMPORARY ENVIRONMENTAL CONTROLS. Separate materials by one of the following methods:

### 1.8.1 Source Separated Method.

Separate waste products and materials that are recyclable from trash and sorted as described below into appropriately marked separate containers and then transported to the respective recycling facility for further processing. Deliver materials in accordance with recycling or reuse facility requirements (e.g., free of dirt, adhesives, solvents, petroleum contamination, and other substances deleterious to the recycling process). Separate materials into the following category types as appropriate to the project waste and to the available recycling and reuse programs in the project area:

- a. Land clearing debris.
- b. Asphalt.
- c. Concrete and masonry.
- d. Metal (e.g. banding, stud trim, ductwork, piping, rebar, roofing, other trim, steel, iron, galvanized, stainless steel, aluminum, copper, zinc, lead brass, bronze).
  - (1) Ferrous.
  - (2) Non-ferrous.
- e. Wood (nails and staples allowed).
- f. Debris.
- g. Glass (colored glass allowed).
- h. Paper.
  - (1) Bond.
  - (2) Newsprint.
  - (3) Cardboard and paper packaging materials.

i. Plastic.

Type	
1	Polyethylene Terephthalate (PET, PETE)
2	High Density Polyethylene (HDPE)
3	Vinyl (Polyvinyl Chloride or PVC)
4	Low Density Polyethylene (LDPE)
5	Polypropylene (PP)
6	Polystyrene (PS)
7	Other. Use of this code indicates that the package in question is made with a resin other than the six listed above, or is made of more than one resin listed above, and used in a multi-layer combination.

j. Gypsum.

k. Non-hazardous paint and paint cans.

l. Carpet.

m. Ceiling tiles.

n. Insulation.

o. Beverage containers.

1.8.2 Co-Mingled Method.

Place waste products and recyclable materials into a single container and then transport to a recycling facility where the recyclable materials are sorted and processed.

1.8.3 Other Methods.

Other proposed methods may be used when approved by the Contracting Officer.

1.9 DISPOSAL

Control accumulation of waste materials and trash. Recycle or dispose of collected materials off-site at intervals approved by the Contracting Officer and in compliance with waste management procedures. Except as otherwise specified in other sections of the specifications, dispose of in accordance with the following:

1.9.1 Reuse.

Give first consideration to salvage for reuse since little or no re-processing is necessary for this method, and less pollution is created

when items are reused in their original form. Coordinate reuse with the Contracting Officer. Consider sale or donation of waste suitable for reuse.

#### 1.9.2 Recycle.

Recycle waste materials not suitable for reuse, but having value as being recyclable. Recycle all fluorescent lamps, HID lamps, and mercury-containing thermostats removed from the site. Arrange for timely pickups from the site or deliveries to recycling facilities in order to prevent contamination of recyclable materials.

#### 1.9.3 Waste.

Dispose of materials with no practical use or economic benefit to waste-to-energy plants where available. As the last choice, dispose of materials at a landfill or incinerator.

#### 1.9.4 Return

Set aside and protect misdelivered and substandard products and materials and return to supplier for credit.

### PART 2 PRODUCTS

Not used.

### PART 3 EXECUTION

Not used.           -- End of Section --

SECTION 01 78 00

CLOSEOUT SUBMITTALS

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.

U.S. ARMY CORPS OF ENGINEERS (USACE)

ERDC/ITL TR-12-1 (2015) A/E/C Graphics Standard, Release 2.0

ERDC/ITL TR-12-6 (2015) A/E/C CAD Standard - Release 6.0

U.S. DEPARTMENT OF DEFENSE (DOD)

UFC 1-300-08 (2009, with Change 2, 2011) Criteria for Transfer and Acceptance of DoD Real Property

1.2 DEFINITIONS

1.2.1 As-Built Drawings

As-built drawings are developed and maintained by the Contractor and depict actual conditions, including deviations from the Contract Documents. These deviations and additions may result from coordination required by, but not limited to: contract modifications; official responses to Contractor submitted Requests for Information; direction from the Contracting Officer; designs which are the responsibility of the Contractor, and differing site conditions. Maintain the as-builts throughout construction as red-lined hard copies on site. These files serve as the basis for the creation of the record drawings.

1.2.2 Record Drawings

The record drawings are the final compilation of actual conditions reflected in the as-built drawings.

1.3 SOURCE DRAWING FILES

Request the full set of electronic drawings, in the source format, for Record Drawing preparation, after award and at least 30 days prior to required use.

1.3.1 Terms and Conditions

Data contained on these electronic files must not be used for any purpose other than as a convenience in the preparation of construction data for the referenced project. Any other use or reuse shall be at the sole risk of the Contractor and without liability or legal exposure to the Government. The Contractor must make no claim and waives to the fullest extent permitted by law, any claim or cause of action of any nature

against the Government, its agents or sub consultants that may arise out of or in connection with the use of these electronic files. The Contractor must, to the fullest extent permitted by law, indemnify and hold the Government harmless against all damages, liabilities or costs, including reasonable attorney's fees and defense costs, arising out of or resulting from the use of these electronic files.

These electronic CAD drawing files are not construction documents. Differences may exist between the CAD files and the corresponding construction documents. The Government makes no representation regarding the accuracy or completeness of the electronic CAD files, nor does it make representation to the compatibility of these files with the Contractor hardware or software. In the event that a conflict arises between the signed and sealed construction documents prepared by the Government and the furnished Source drawing files, the signed and sealed construction documents govern. The Contractor is responsible for determining if any conflict exists. Use of these Source Drawing files does not relieve the Contractor of duty to fully comply with the contract documents, including and without limitation, the need to check, confirm and coordinate the work of all contractors for the project. If the Contractor uses, duplicates or modifies these electronic source drawing files for use in producing construction data related to this contract, remove all previous indicia of ownership (seals, logos, signatures, initials and dates).

#### 1.4 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. Submittals with an "S" are for inclusion in the Sustainability eNotebook, in conformance to Section 01 33 29 SUSTAINABILITY REPORTING. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

##### SD-03 Product Data

Warranty Management Plan

Warranty Tags

Spare Parts Data

Final Cleaning

##### SD-08 Manufacturer's Instructions

Posted Instructions

##### SD-10 Operation and Maintenance Data

Operation and Maintenance Manuals; G

##### SD-11 Closeout Submittals

As-Built Drawings; G

Record Drawings; G

As-Built Record of Equipment and Materials



Final Approved Shop Drawings

Construction Contract Specifications

Certification of EPA Designated Items; G, S

Interim DD FORM 1354; G

Checklist for DD FORM 1354; G

High Performance and Sustainable Building (HPSB) Checklist; S

#### 1.5 SPARE PARTS DATA

Submit two copies of the Spare Parts Data list.

- a. Indicate manufacturer's name, part number, nomenclature, and stock level required for maintenance and repair. List those items that may be standard to the normal maintenance of the system.
- b. Supply five items of each part for spare parts inventory. Provision of spare parts does not relieve the Contractor of responsibilities listed under the contract guarantee provisions.

#### 1.6 QUALITY CONTROL

Additions and corrections to the contract drawings must be equal in quality and detail to that of the originals. Line colors, line weights, lettering, layering conventions, and symbols must be the same as the original line colors, line weights, lettering, layering conventions, and symbols.

#### 1.7 WARRANTY MANAGEMENT

##### 1.7.1 Warranty Management Plan

At least 30 days before the planned pre-warranty conference, submit one set of the warranty management plan. Include within the warranty management plan all required actions and documents to assure that the Government receives all warranties to which it is entitled. The plan must be in narrative form and contain sufficient detail to render it suitable for use by future maintenance and repair personnel, whether tradesmen, or of engineering background, not necessarily familiar with this contract. The term "status" as indicated below must include due date and whether item has been submitted or was accomplished. Warranty information made available during the construction phase must be submitted to the Contracting Officer for approval prior to each monthly pay estimate. Assemble approved information in a binder and turn over to the Government upon acceptance of the work. The construction warranty period will begin on the date of project acceptance and continue for the full product warranty period. A joint 4-month and 9-month warranty inspection will be conducted, measured from time of acceptance, by the Contractor, Contracting Officer and the Customer Representative. Include within the warranty management plan, but not limited to, the following:

- a. Roles and responsibilities of all personnel associated with the warranty process, including points of contact and telephone numbers within the organizations of the Contractors, subcontractors,

manufacturers or suppliers involved.

- b. Furnish with each warranty the name, address, and telephone number of each of the guarantor's representatives nearest to the project location.
- c. Listing and status of delivery of all Certificates of Warranty for extended warranty items, to include roofs, HVAC balancing, pumps, motors, transformers, and for all commissioned systems such as fire protection and alarm systems, sprinkler systems, lightning protection systems, etc.
- d. A list for each warranted equipment, item, feature of construction or system indicating:
  - (1) Name of item.
  - (2) Model and serial numbers.
  - (3) Location where installed.
  - (4) Name and phone numbers of manufacturers or suppliers.
  - (5) Names, addresses and telephone numbers of sources of spare parts.
  - (6) Warranties and terms of warranty. Include one-year overall warranty of construction, including the starting date of warranty of construction. Items which have extended warranties must be indicated with separate warranty expiration dates.
  - (7) Cross-reference to warranty certificates as applicable.
  - (8) Starting point and duration of warranty period.
  - (9) Summary of maintenance procedures required to continue the warranty in force.
  - (10) Cross-reference to specific pertinent Operation and Maintenance manuals.
  - (11) Organization, names and phone numbers of persons to call for warranty service.
  - (12) Typical response time and repair time expected for various warranted equipment.
- e. The plans for attendance at the 4-month and 9-month post-construction warranty inspections conducted by the Government.
- f. Procedure and status of tagging of all equipment covered by extended warranties.
- g. Copies of [instructions](#) to be posted near selected pieces of equipment where operation is critical for warranty and/or safety reasons.

#### 1.7.2 Performance Bond

The Performance Bond must remain effective throughout the construction period.

- a. In the event the Contractor fails to commence and diligently pursue any construction warranty work required, the Contracting Officer will have the work performed by others, and after completion of the work, will charge the remaining construction warranty funds of expenses incurred by the Government while performing the work, including, but not limited to administrative expenses.
- b. In the event sufficient funds are not available to cover the construction warranty work performed by the Government at the Contractor's expense, the Contracting Officer will have the right to

recoup expenses from the bonding company.

- c. Following oral or written notification of required construction warranty repair work, respond in a timely manner. Written verification will follow oral instructions. Failure to respond will be cause for the Contracting Officer to proceed against the Contractor.

#### 1.7.3 Pre-Warranty Conference

Prior to contract completion, and at a time designated by the Contracting Officer, meet with the Contracting Officer to develop a mutual understanding with respect to the requirements of this section. Communication procedures for Contractor notification of construction warranty defects, priorities with respect to the type of defect, reasonable time required for Contractor response, and other details deemed necessary by the Contracting Officer for the execution of the construction warranty will be established/reviewed at this meeting. In connection with these requirements and at the time of the Contractor's quality control completion inspection, furnish the name, telephone number and address of a licensed and bonded company which is authorized to initiate and pursue construction warranty work action on behalf of the Contractor. This point of contact will be located within the local service area of the warranted construction, be continuously available, and be responsive to Government inquiry on warranty work action and status. This requirement does not relieve the Contractor of any of its responsibilities in connection with other portions of this provision.

#### 1.7.4 Warranty Tags

At the time of installation, tag each warranted item with a durable, oil and water-resistant tag approved by the Contracting Officer. Attach each tag with a copper wire and spray with a silicone waterproof coating. Also, submit two record copies of the warranty tags showing the layout and design. The date of acceptance and the QC signature must remain blank until the project is accepted for beneficial occupancy. Show the following information on the tag.

Type of product/material	
Model number	
Serial number	
Contract number	
Warranty period from/to	
Inspector's signature	
Construction Contractor	
Address	

Telephone number	
Warranty contact	
Address	
Telephone number	
Warranty response time priority code	
WARNING - PROJECT PERSONNEL TO PERFORM ONLY OPERATIONAL MAINTENANCE DURING THE WARRANTY PERIOD.	

## PART 2 PRODUCTS

### 2.1 CERTIFICATION OF EPA DESIGNATED ITEMS

Submit the [Certification of EPA Designated Items](#) as required by FAR 52.223-9 Estimate of Percentage of Recovered Material Content for EPA Designated Items. Include on the certification form the following information: project name, project number, Contractor name, license number, Contractor address, and certification. The certification will read as follows and be signed and dated by the Contractor. "I hereby certify the information provided herein is accurate and that the requisition/procurement of all materials listed on this form comply with current EPA standards for recycled/recovered materials content. The following exemptions may apply to the non-procurement of recycled/recovered content materials:

- 1) The product does not meet appropriate performance standards;
- 2) The product is not available within a reasonable time frame;
- 3) The product is not available competitively (from two or more sources);
- 4) The product is only available at an unreasonable price (compared with a comparable non-recycled content product)."

Record each product used in the project that has a requirement or option of containing recycled or biobased content in accordance with SECTION [01 33 29 SUSTAINABILITY REPORTING](#), noting total price, total value of post-industrial recycled content, total value of post-consumer recycled content, total value of biobased content, exemptions (1, 2, 3, or 4, as indicated), and comments. Recycled and biobased content values may be determined by weight or volume percent but must be consistent throughout.

## PART 3 EXECUTION

### 3.1 AS-BUILT DRAWINGS

[Provide and maintain two black line print copies of the PDF contract drawings for As-Built Drawings.](#)

#### 3.1.1 Markup Guidelines

Make comments and markup the drawings complete without reference to letters, memos, or materials that are not part of the As-Built drawing.

Show what was changed, how it was changed, where item(s) were relocated and change related details. These working as-built markup prints must be neat, legible and accurate as follows:

- a. Use base colors of red, green, and blue. Color code for changes as follows:
  - (1) Special (Blue) - Items requiring special information, coordination, or special detailing or detailing notes.
  - (2) Deletions (Red) - Over-strike deleted graphic items (lines), lettering in notes and leaders.
  - (3) Additions (Green) - Added items, lettering in notes and leaders.
- b. Provide a legend if colors other than the "base" colors of red, green, and blue are used.
- c. Add and denote any additional equipment or material facilities, service lines, incorporated under As-Built Revisions if not already shown in legend.
- d. Use frequent written explanations on markup drawings to describe changes. Do not totally rely on graphic means to convey the revision.
- e. Use legible lettering and precise and clear digital values when marking prints. Clarify ambiguities concerning the nature and application of change involved.
- f. Wherever a revision is made, also make changes to related section views, details, legend, profiles, plans and elevation views, schedules, notes and call out designations, and mark accordingly to avoid conflicting data on all other sheets.
- g. For deletions, cross out all features, data and captions that relate to that revision.
- h. For changes on small-scale drawings and in restricted areas, provide large-scale inserts, with leaders to the applicable location.
- i. Indicate one of the following when attaching a print or sketch to a markup print:
  - 1) Add an entire drawing to contract drawings
  - 2) Change the contract drawing to show
  - 3) Provided for reference only to further detail the initial design.
- j. Incorporate all shop and fabrication drawings into the markup drawings.

### 3.1.2 As-Built Drawings Content

Revise As-Built Drawings in accordance with ERDC/ITL TR-12-1 and ERDC/ITL TR-12-6. Provide 2 sets of paper copies from PDF drawings to show the as-built conditions by red-line process during the execution of the project. Keep these working as-built markup drawings current on a weekly basis and at least one set available on the jobsite at all times. Changes from the contract drawings which are made during construction or

additional information which might be uncovered in the course of construction must be accurately and neatly recorded as they occur by means of details and notes. Submit the working as-built markup drawings for approval prior to submission of each monthly pay estimate. For failure to maintain the working and final record drawings as specified herein, the Contracting Officer will withhold 10 percent of the monthly progress payment until approval of updated drawings. Show on the as-built drawings, but not limited to, the following information:

- a. The actual location, kinds and sizes of all sub-surface utility lines. In order that the location of these lines and appurtenances may be determined in the event the surface openings or indicators become covered over or obscured, show by offset dimensions to two permanently fixed surface features the end of each run including each change in direction on the record drawings. Locate valves, splice boxes and similar appurtenances by dimensioning along the utility run from a reference point. Also record the average depth below the surface of each run.
- b. The location and dimensions of any changes within the building structure.
- c. Layout and schematic drawings of electrical circuits and piping.
- d. Correct grade, elevations, cross section, or alignment of roads, earthwork, structures or utilities if any changes were made from contract plans.
- e. Changes in details of design or additional information obtained from working drawings specified to be prepared and/or furnished by the Contractor; including but not limited to shop drawings, fabrication, erection, installation plans and placing details, pipe sizes, insulation material, dimensions of equipment foundations, etc.
- f. The topography, invert elevations and grades of drainage installed or affected as part of the project construction.
- g. Changes or Revisions which result from the final inspection.
- h. Where contract drawings or specifications present options, show only the option selected for construction on the working as-built markup drawings.
- i. If borrow material for this project is from sources on Government property, or if Government property is used as a spoil area, furnish a contour map of the final borrow pit/spoil area elevations.
- j. Systems designed or enhanced by the Contractor, such as HVAC controls, fire alarm, fire sprinkler, and irrigation systems.
- k. Changes in location of equipment and architectural features.
- l. Modifications (include within change order price the cost to change working as-built markup drawings to reflect modifications) and compliance with FC 1-300-09N procedures.
- m. Actual location of anchors, construction and control joints, etc., in concrete.

- n. Unusual or uncharted obstructions that are encountered in the contract work area during construction.
- o. Location, extent, thickness, and size of stone protection particularly where it will be normally submerged by water.

### 3.1.3 Withholding for Final As-Built Drawings

The final as-built drawings will be jointly reviewed for accuracy and completeness by the Contracting Officer and the Contractor. If the Contractor fails to provide final as-built drawings as specified herein, the Contracting Officer will withhold an amount representing the estimated cost of providing the final as-built drawings until an agreement can be reached between the Contracting Officer and the Contractor regarding the accuracy and completeness of the final as-built drawings.

## 3.2 RECORD DRAWING FILES

If additional drawings are required, prepare them using the specified electronic file format applying the same graphic standards specified for original drawings. The title block and drawing border to be used for any new final record drawings must be identical to that used on the contract drawings. Accomplish additions and corrections to the contract drawings using CAD files. Provide all program files and hardware necessary to prepare final PDF record drawings. The Contracting Officer will review final PDF record drawings for accuracy and return them to the Contractor for required corrections, changes, additions, and deletions.

### 3.2.1 Rename the CAD Drawing files

Rename the CAD Drawing files using the contract number as the Project Code field, (e.g., W91238-15-C-10A-102.DWGDGN) as instructed in the Pre-Construction conference. Use only those renamed files for the Marked-up changes. Make all changes on the layer/level as the original item.

- a. For AutoCAD files (DWG), enter all as-built delta changes and notations on the AS-BUILT layer. For MicroStation files (DGN), enter all as-built delta changes and notations on:
  - Level #63
  - Level/Layer Name contains: ANNO-REVS
  - Level/Layer Description: Revisions
- c. When final revisions have been completed, show the wording "RECORD DRAWING AS-BUILTS" followed by the name of the Contractor in letters at least 3/16 inch high on the cover sheet drawing. Date "RECORD DRAWING AS-BUILTS" drawing revisions in the revision block.
- d. Within 20 days after Government approval of all of the working record drawings for a phase of work, prepare the final CAD record drawings for that phase of work and submit PDF drawing files and two sets of prints for review and approval. The Government will promptly return one set of prints annotated with any necessary corrections. Within 10 days revise the CAD files accordingly at no additional cost and submit one set of final prints for the completed phase of work to the Government. Within 20 days of substantial completion of all phases of work, submit the final record drawing package for the entire project. Submit one set of electronic CAD files, and one set of the approved

working record PDF files on an optical disc with two sets of prints. The CAD files must be complete in all details and identical in form and function to the CAD drawing files supplied by the Government. Prepare AutoCAD files for transmittal using e-Transmit. Prepare MicroStation files for transmittal using the Packager (Archive). Make any transactions or adjustments necessary to accomplish this. The Government reserves the right to reject any drawing files it deems incompatible with the customer's CAD system. Paper prints, drawing files and storage media submitted will become the property of the Government upon final approval. Failure to submit final record PDF drawing files, CAD files and marked prints as specified will be cause for withholding any payment due under this contract. Approval and acceptance of final record drawings must be accomplished before final payment is made.

### 3.3 RECORD DRAWINGS

Prepare final record drawings after the completion of each definable feature of work as listed in the Contractor Quality Control Plan (Foundations, Utilities, Structural Steel, etc., as appropriate for the project). Transfer the changes from the approved working as-built markup drawings to the original electronic CAD drawing files. Modify the as-built CAD drawing files to correctly show the features of the project as-built by bringing the working CAD drawing set into agreement with approved working as-built markup drawings and adding such additional drawings as may be necessary. Refer to [ERDC/ITL TR-12-1](#) Chapter 11 Drawing Revisions. Jointly review the working as-built markup drawings with printouts from working as-built CAD drawing PDF files for accuracy and completeness. Monthly review of working as-built CAD drawing PDF file printouts must cover all sheets revised since the previous review. These PDF drawing files are part of the permanent records of this project. Any drawings damaged or lost must be satisfactorily replaced at no expense to the Government.

- a. Drawing revisions (include within change order price the cost to change working and final record drawings to reflect revisions) and compliance with the following procedures.
  - (1) Follow directions in the revision for posting descriptive changes.
  - (2) The revision delta size must be [5/16 inch](#) unless the area where the delta is to be placed is crowded. Use a smaller size delta for crowded areas.
  - (3) Place a revision delta at the location of each deletion.
  - (4) For new details or sections which are added to a drawing, place a revision delta by the detail or section title.
  - (5) For minor changes, place a revision delta by the area changed on the drawing (each location).
  - (6) For major changes to a drawing, place a revision delta by the title of the affected plan, section, or detail at each location.
  - (7) For changes to schedules or drawings, place a revision delta either by the schedule heading or by the change in the schedule.



### 3.3.1 Final Record Drawing Package

Submit the final record PDF and CAD drawings package for the entire project within 20 days of substantial completion of all phases of work. Submit one set of ANSI D size PDF and CAD files on optical disc, read-only memory (ROM), two sets of ANSI D size prints and one set of the approved working record drawings. The package must be complete in all details and identical in form and function to the contract drawing files supplied by the Government.

### 3.4 FINAL APPROVED SHOP DRAWINGS

Submit final approved project shop drawings 30 days after transfer of the completed facility.

### 3.5 CONSTRUCTION CONTRACT SPECIFICATIONS

Submit final PDF file record construction contract specifications, including revisions thereto, 30 days after transfer of the completed facility.

### 3.6 AS-BUILT RECORD OF EQUIPMENT AND MATERIALS

Furnish one copy of preliminary record of equipment and materials used on the project 15 days prior to final inspection. This preliminary submittal will be reviewed and returned 2 days after final inspection with Government comments. Submit two sets of final record of equipment and materials 10 days after final inspection. Key the designations to the related area depicted on the contract drawings. List the following data:

RECORD OF DESIGNATED EQUIPMENT AND MATERIALS DATA				
Description	Specification Section	Manufacturer and Catalog, Model, and Serial Number	Composition and Size	Where Used

### 3.7 OPERATION AND MAINTENANCE MANUALS

Provide project operation and maintenance manuals as specified in Section 01 78 23 OPERATION AND MAINTENANCE MANUALS DATA. Provide four electronic copies of the Operation and Maintenance Manual files and one hard copy of the Operation and Maintenance Manuals. Submit to the Contracting Officer for approval within 30 calendar days of the Beneficial Occupancy Date (BOD). Update and resubmit files for final approval at BOD.

### 3.8 CLEANUP

Provide final cleaning in accordance with ASTM E1971 and submit two copies of the listing of completed final clean-up items. Leave premises "broom clean." Comply with GS-37 for general purpose cleaning and bathroom cleaning. Use only nonhazardous cleaning materials, including natural

cleaning materials, in the final cleanup. Clean interior and exterior glass surfaces exposed to view; remove temporary labels, stains and foreign substances; polish transparent and glossy surfaces; vacuum carpeted and soft surfaces. Clean equipment and fixtures to a sanitary condition. Replace filters of operating equipment and comply with the Indoor Air Quality (IAQ) Management Plan. Clean debris from roofs, gutters, downspouts and drainage systems. Sweep paved areas and rake clean landscaped areas. Remove waste and surplus materials, rubbish and construction facilities from the site. Recycle, salvage, and return construction and demolition waste from project in accordance with Section 01 57 19 TEMPORARY ENVIRONMENTAL CONTROLS, and 01 74 19 CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT.

### 3.9 REAL PROPERTY RECORD

Near the completion of Project, but a minimum of 60 days prior to final acceptance of the work, complete and submit an accounting of all installed property with Interim DD FORM 1354. Include any additional assets, improvements, and alterations from the Draft DD FORM 1354. Contact the Contracting Officer for any project specific information necessary to complete the DD FORM 1354. Refer to UFC 1-300-08 for instruction on completing the DD FORM 1354. Attach the Real Property receiving Component's completed High Performance and Sustainable Building (HPSB) Checklist for each applicable building to the completed DD 1354, in accordance with Section 01 33 29 SUSTAINABILITY REPORTING. For convenience, a blank fillable PDF DD FORM 1354 may be obtained at the following link:

[www.esd.whs.mil/Portals/54/Documents/DD/forms/dd/dd1354.pdf](http://www.esd.whs.mil/Portals/54/Documents/DD/forms/dd/dd1354.pdf)

Submit the completed Checklist for DD FORM 1354 of Installed Building Equipment items. Attach this list to the updated DD FORM 1354.

-- End of Section --

## SECTION 01 78 23

### OPERATION AND MAINTENANCE DATA

#### 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. Submittals with an "S" are for inclusion in the Sustainability eNotebook, in conformance with Section 01 33 29 SUSTAINABILITY REPORTING. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

##### SD-10 Operation and Maintenance Data

O&M Database; G

Training Plan; G

Training Outline; G

Training Content; G

Draft Operation And Maintenance Manual; G

Final Operation And Maintenance Manual; G

Final Production Submittal; G

##### SD-11 Closeout Submittals

Training Video Recording; G

Validation of Training Completion; G

##### 1.2 OPERATION AND MAINTENANCE DATA

Submit Operation and Maintenance (O&M) Data for the provided equipment, product, or system, defining the importance of system interactions, troubleshooting, and long-term preventive operation and maintenance. Compile, prepare, and aggregate O&M data to include clarifying and updating the original sequences of operation to as-built conditions. Organize and present information in sufficient detail to clearly explain O&M requirements at the system, equipment, component, and subassembly level. Include an index preceding each submittal. Submit in accordance with this section and Section 01 33 00 SUBMITTAL PROCEDURES.

###### 1.2.1 Package Quality

Documents must be fully legible. Operation and Maintenance data must be consistent with the manufacturer's standard brochures, schematics, printed instructions, general operating procedures, and safety precautions.

### 1.2.2 Package Content

Provide data package content in accordance with paragraph SCHEDULE OF OPERATION AND MAINTENANCE DATA PACKAGES. Comply with the data package requirements specified in the individual technical sections, including the content of the packages and addressing each product, component, and system designated for data package submission, except as follows. Use Data Package 4 for commissioned items without a specified data package requirement in the individual technical sections. Provide a Data Package 4 instead of Data Package 1 or 2, as specified in the individual technical section, for items that are commissioned.

### 1.2.3 Changes to Submittals

Provide manufacturer-originated changes or revisions to submitted data if a component of an item is so affected subsequent to acceptance of the O&M Data. Submit changes, additions, or revisions required by the Contracting Officer for final acceptance of submitted data within 30 calendar days of the notification of this change requirement.

## 1.3 O&M MANUAL

The Contractor shall be responsible for the preparation, coordination, execution and submittal of all operation and maintenance instructions, training of operating and service personnel, spare parts lists, special tools and inventories of equipment. Manuals and maintenance instructions shall be for all system installations provided in this contract and shall be in sufficient detail to facilitate normal maintenance and troubleshooting by persons with minimum experience with the installed equipment. These O & M manuals shall be consolidated by division of the technical specifications (i.e. 23 52 00, HEATING BOILERS). Contents are indexed, and suitably cross-referenced to and between various volumes. The manuals must be divided into chapters for each major system and subdivided into the proper chapters as necessary to promote readability. Bound set covers are labeled with the system name; building number; contractor's name; and the contract number of the project. All copies shall be forwarded to the Resident Office for review and approval. A Draft Operation and Maintenance Manual and a Final Operation and Maintenance Manual shall be prepared.

### 1.3.1 Draft Operation and Maintenance Manual

A draft manual shall be submitted in quadruplicate for review no later than 60 days prior to scheduled contract completion. Failure to do so will result in a 10% retainage of the current progress payment. Four copies of these documents shall be submitted unless a greater number is required by the Technical Provisions. If a lesser number is specified, four shall be submitted. After review by the Government, the Contractor will have 30 days to make corrections and submit a [Final Operation and Maintenance Manual](#). Except for those portions which cannot be fully developed prior to testing and checkout, final approved manuals shall be furnished prior to scheduling training of operating and service personnel. Approved operation and maintenance instructions shall be provided 30 days prior to scheduling training of operating and service personnel. The Contractor shall coordinate the content of each instruction period required in the Technical Provisions of these specifications with the Contracting Officer's representative prior to the actual start of the training period.

### 1.3.2 Table of Contents

This must include a listing of all major subjects and the page numbers on which they appear, plus a list of all illustrations and a list of all tables to include the title and page numbers on which they appear.

### 1.3.3 System Features

The following features must be presented for systems as well as individual equipments.

#### 1.3.3.1 Notes, Cautions and Warnings

Notes, cautions and warnings are used to emphasize important and critical instructions where necessary. A warning page, consisting of the more vital warnings extracted from those shown throughout the manual, must be used when care must be exercised.

#### 1.3.3.2 Theory and Principles of Operation

This section includes a complete functional description of the system or equipment (as installed), based on a system or equipment block diagram. For complex mechanical or electrical features, a complete explanation must be given using block diagrams, exploded views, or cutaway drawings. Each major component must be broken down to a block diagram or to simplified schematics where the complexity of the circuits require such detail.

#### 1.3.3.3 Start Up Procedures

This section includes step-by-step instructions for starting, operating, and stopping the equipment and/or system. Meter readings and the results to be expected from properly adjusted and operated equipment must be supplied, calling out all operating controls and indications. All references to controls and indicators must follow the specific designation on the panels and nameplates. Operating plasticized instruction cards must be provided in addition to the manual and attached to equipment. Operating instructions must include routine and emergency precautions. Emergency operating instructions must include alternate procedures to be followed when normal operation is not possible because of emergency conditions (i.e. component equipment failure, power failure, etc.). Emergency operating instructions and procedures must be located for quick and ready reference.

### 1.3.4 Service and Maintenance

#### 1.3.4.1 Preventative Maintenance

This section includes all maintenance adjustment procedures to be performed periodically to prevent equipment failure. Preventative maintenance procedures which require the use of special tools, procedures or specialized expertise must be specifically detailed with proper precautions highlighted. Any preventative maintenance procedure which requires that essential life support systems or subsystems be terminated or limited, must be explicitly stated. Data must include the recommended frequency of adjustment verification checks.

#### 1.3.4.2 Corrective Maintenance

Instructions must be provided for all removal, repair, adjustment, and

replacement procedures. Exploded and sectional views giving details of assemblies must be provided, as necessary, to clarify the text. For mechanical items, dimensional information with tolerances, clearances, wear limits, maximum bolt-down torques, and in-place balancing or other means or reducing noise level, if required, must be supplied.

#### 1.3.4.3 Troubleshooting

Troubleshooting shall apply to systems as well as individual equipments. Failures that might occur during operation must be listed. Troubleshooting data and fault isolation techniques must state:

- a. The indication or symptom of trouble.
- b. The instructions necessary, including test hookups, to determine the cause.
- c. Special tools and equipment required.
- d. Methods for returning the equipment to operating conditions.

#### 1.3.4.4 Circuit Diagrams

Circuit diagrams for electronic units are provided to support maintenance, and troubleshooting. Circuit diagrams must cross-reference repair parts shown in test tables and parts lists. Interconnecting cable diagrams must be furnished to show TO and FROM information, including any intermediate connections.

#### 1.3.4.5 Illustrations

Manuals must contain all illustrations necessary to locate and identify components of operational and maintenance significance. Where necessary for clarity, illustrations must show configuration, and the removal and disassembly of parts.

#### 1.3.4.6 Replacement Parts

Parts list must provide positive identification of parts necessary for support of the systems or equipment and must include sufficient information to enable maintenance personnel to requisition replacement parts. The parts list must show part number, generic description and drawing components and functional mechanical components in the equipment. Parts lists are also provided for all vendor-supplied assemblies or subassemblies. Recommended stockage quantities of high usage repair parts must be provided. Provide price list for all spare parts.

#### 1.3.5 Test and Balance Report

A copy of the approved test and balance report shall be included in the appropriate section of the manual.

#### 1.3.6 Inventory of Installed Property

A copy of the approved inventory of installed property shall be included in a separate section of the manual.

#### 1.3.7 Emergency Procedures

Include location and procedures for operating all emergency cutoffs.

#### 1.3.8 Energy Conservation

Procedures for initiating energy conservation measures, when required selectively or because of equipment failure, must be provided. The negative impact of implementing these procedures must be stated. This section relates to EMCS control of major mechanical equipments.

#### 1.3.9 Copies

Copies of the guarantee or warranty terms and conditions for all components of the facility. These must be organized and referenced by component. The name and address of installing and servicing contractors must be provided for each component. Performance agreements for roofs must be included.

#### 1.3.10 Important and Special Considerations

Include data as to commercial warranty terms, available customer "in service" training offered by the manufacturer or supplier, initial inspection procedures, etc.

### 1.4 VIDEO TAPING TRAINING SESSIONS

All training sessions required by the technical specifications for operations and service personnel shall be video and sound recorded.

#### 1.4.1 Duration

The time allotted for training under sections of the technical specifications includes multiple training sessions to accommodate various personnel schedules. The amount of time requiring videographic documentation shall be one third of the stated training duration.

#### 1.4.2 Video Tape Recording

Acceptable video recordings shall be recorded in digital format using standard NTSC color and EIA standards. Cameras shall be 1080P, 24 MP resolution or better.

##### 1.4.2.1 Final Production Submittal

The final production submittal of the recorded training sessions shall be presented in DVD format. A scene index shall accompany the recording to allow easy access to any portion of the material. The original recording tapes and final production submittal copies shall be labeled and delivered to the Contracting Officer.

#### 1.4.3 Video Production

The final video production shall include the following features:

- a. Legible close-ups of nameplates and equipment when referenced by the instructor.
- b. Clear visual identification of equipment or system components

referenced by the instructor.

- c. Specification section titles and scene transitions between sections.
- d. Adequate professional lighting.
- e. Microphones with wind screens for clear audio.
- f. Standard presentation introduction to include the date, presenter's name, company, project name, specification title and section number.

#### 1.4.4 Sound Recording

Voice recordings shall be recorded with an appropriate type, directional sensitivity and style of microphone. Acceptable pickup elements are dynamic and condenser. Acceptable types of microphones are handheld, lavalier, shotgun, wireless, and PZM. Frequency response shall be 50 to 15k Hz +/-10dB. Signal-to-noise ratio shall be 55dB or greater.

#### 1.4.5 Videographer

The videographer shall be video professional with a minimum of two years experience.

#### 1.4.6 Videographic Documentation Plan

The Videographic Documentation Plan shall include the following:

- a. Each training session location shall be shown on a half-size drawings of the site or building. Plans shall be clearly marked and keyed to a separate reference sheet(s) with session name listed.
- b. Production schedule, including event name, dates, time and anticipated duration.
- c. Equipment list of camera type and format, audio, and lighting equipment to be used. Include manufacturer, model number, and serial number of all equipment used.

#### 1.5 O&M DATABASE

Develop an editable, electronic spreadsheet based on the equipment in the Operation and Maintenance Manuals that contains the information required to start a preventive maintenance program. As a minimum, provide list of system equipment, location installed, warranty expiration date, manufacturer, model, and serial number.

#### 1.6 OPERATION AND MAINTENANCE MANUAL FILE FORMAT

Assemble data packages into electronic Operation and Maintenance Manuals. Assemble each manual into a composite electronically indexed file using the most current version of Adobe Acrobat or similar software capable of producing PDF file format. Provide compact disks (CD) or data digital versatile disk (DVD) as appropriate, so that each one contains operation, maintenance and record files, project record documents, and training videos. Include a complete electronically linked operation and maintenance directory.



#### 1.6.1 Organization

Bookmark Product and Drawing Information documents using the current version of CSI MasterFormat numbering system, and arrange submittals using the specification sections as a structure. Use CSI MasterFormat and UFGS numbers along with descriptive bookmarked titles that explain the content of the information that is being bookmarked.

#### 1.6.2 CD or DVD Label and Disk Holder or Case

Provide the following information on the disk label and disk holder or case:

- a. Building Number
- b. Project Title
- c. Activity and Location
- d. Construction Contract Number
- e. Prepared For: (Contracting Agency)
- f. Prepared By: (Name, title, phone number and email address)
- g. Include the disk content on the disk label
- h. Date
- i. Virus scanning program used

#### 1.7 TYPES OF INFORMATION REQUIRED IN O&M DATA PACKAGES

The following are a detailed description of the data package items listed in paragraph SCHEDULE OF OPERATION AND MAINTENANCE DATA PACKAGES.

##### 1.7.1 Operating Instructions

Provide specific instructions, procedures, and illustrations for the following phases of operation for the installed model and features of each system:

##### 1.7.1.1 Safety Precautions and Hazards

List personnel hazards and equipment or product safety precautions for operating conditions. List all residual hazards identified in the Activity Hazard Analysis provided under Section 01 35 26 GOVERNMENT SAFETY REQUIREMENTS. Provide recommended safeguards for each identified hazard.

##### 1.7.1.2 Operator Prestart

Provide procedures required to install, set up, and prepare each system for use.

##### 1.7.1.3 Startup, Shutdown, and Post-Shutdown Procedures

Provide narrative description for Startup, Shutdown and Post-shutdown operating procedures including the control sequence for each procedure.

#### 1.7.1.4 Normal Operations

Provide Control Diagrams with data to explain operation and control of systems and specific equipment. Provide narrative description of Normal Operating Procedures.

#### 1.7.1.5 Emergency Operations

Provide Emergency Procedures for equipment malfunctions to permit a short period of continued operation or to shut down the equipment to prevent further damage to systems and equipment. Provide Emergency Shutdown Instructions for fire, explosion, spills, or other foreseeable contingencies. Provide guidance and procedures for emergency operation of utility systems including required valve positions, valve locations and zones or portions of systems controlled.

#### 1.7.1.6 Operator Service Requirements

Provide instructions for services to be performed by the operator such as lubrication, adjustment, inspection, and recording gauge readings.

#### 1.7.1.7 Environmental Conditions

Provide a list of Environmental Conditions (temperature, humidity, and other relevant data) that are best suited for the operation of each product, component or system. Describe conditions under which the item equipment should not be allowed to run.

#### 1.7.1.8 Operating Log

Provide forms, sample logs, and instructions for maintaining necessary operating records.

#### 1.7.1.9 Additional Requirements for HVAC Control Systems

Provide Data Package 5 and the following for control systems:

- a. Narrative description on how to perform and apply functions, features, modes, and other operations, including unoccupied operation, seasonal changeover, manual operation, and alarms. Include detailed technical manual for programming and customizing control loops and algorithms.
- b. Full as-built sequence of operations.
- c. Copies of checkout tests and calibrations performed by the Contractor (not Cx tests).
- d. Full points list. Provide a listing of rooms with the following information for each room:
  - (1) Floor
  - (2) Room number
  - (3) Room name
  - (4) Air handler unit ID
  - (5) Reference drawing number

(6) Air terminal unit tag ID

(7) Heating or cooling valve tag ID

(8) Minimum cfm

(9) Maximum cfm

- e. Full print out of all schedules and set points after testing and acceptance of the system.
- f. Full as-built print out of software program.
- g. Marking of system sensors and thermostats on the as-built floor plan and mechanical drawings with their control system designations.

#### 1.7.2 Preventive Maintenance

Provide the following information for preventive and scheduled maintenance to minimize repairs for the installed model and features of each system. Include potential environmental and indoor air quality impacts of recommended maintenance procedures and materials.

##### 1.7.2.1 Lubrication Data

Include the following preventive maintenance lubrication data, in addition to instructions for lubrication required under paragraph OPERATOR SERVICE REQUIREMENTS:

- a. A table showing recommended lubricants for specific temperature ranges and applications.
- b. Charts with a schematic diagram of the equipment showing lubrication points, recommended types and grades of lubricants, and capacities.
- c. A Lubrication Schedule showing service interval frequency.

##### 1.7.2.2 Preventive Maintenance Plan, Schedule, and Procedures

Provide manufacturer's schedule for routine preventive maintenance, inspections, condition monitoring (predictive tests) and adjustments required to ensure proper and economical operation and to minimize repairs. Provide instructions stating when the systems should be retested. Provide manufacturer's projection of preventive maintenance work-hours on a daily, weekly, monthly, and annual basis including craft requirements by type of craft. For periodic calibrations, provide manufacturer's specified frequency and procedures for each separate operation.

- a. Define the anticipated time required to perform each of each test (work-hours), test apparatus, number of personnel identified by responsibility, and a testing validation procedure permitting the record operation capability requirements within the schedule. Provide a remarks column for the testing validation procedure referencing operating limits of time, pressure, temperature, volume, voltage, current, acceleration, velocity, alignment, calibration, adjustments, cleaning, or special system notes. Delineate procedures for preventive maintenance, inspection, adjustment, lubrication and

cleaning necessary to minimize repairs.

- b. Repair requirements must inform operators how to check out, troubleshoot, repair, and replace components of the system. Include electrical and mechanical schematics and diagrams and diagnostic techniques necessary to enable operation and troubleshooting of the system after acceptance.

### 1.7.3 Repair

Provide manufacturer's recommended procedures and instructions for correcting problems and making repairs.

#### 1.7.3.1 Troubleshooting Guides and Diagnostic Techniques

Provide step-by-step procedures to promptly isolate the cause of typical malfunctions. Describe clearly why the checkout is performed and what conditions are to be sought. Identify tests or inspections and test equipment required to determine whether parts and equipment may be reused or require replacement.

#### 1.7.3.2 Wiring Diagrams and Control Diagrams

Provide point-to-point drawings of wiring and control circuits including factory-field interfaces. Provide a complete and accurate depiction of the actual job specific wiring and control work. On diagrams, number electrical and electronic wiring and pneumatic control tubing and the terminals for each type, identically to actual installation configuration and numbering.

#### 1.7.3.3 Repair Procedures

Provide instructions and a list of tools required to repair or restore the product or equipment to proper condition or operating standards.

#### 1.7.3.4 Removal and Replacement Instructions

Provide step-by-step procedures and a list of required tools and supplies for removal, replacement, disassembly, and assembly of components, assemblies, subassemblies, accessories, and attachments. Provide tolerances, dimensions, settings and adjustments required. Use a combination of text and illustrations.

#### 1.7.3.5 Spare Parts and Supply Lists

Provide lists of spare parts and supplies required for repair to ensure continued service or operation without unreasonable delays. Special consideration is required for facilities at remote locations. List spare parts and supplies that have a long lead-time to obtain.

#### 1.7.3.6 Repair Work-Hours

Provide manufacturer's projection of repair work-hours including requirements by type of craft. Identify, and tabulate separately, repair that requires the equipment manufacturer to complete or to participate.

### 1.7.4 Appendices

Provide information required below and information not specified in the

preceding paragraphs but pertinent to the maintenance or operation of the product or equipment. Include the following:

#### 1.7.4.1 Product Submittal Data

Provide a copy of SD-03 Product Data submittals documented with the required approval.

#### 1.7.4.2 Manufacturer's Instructions

Provide a copy of SD-08 Manufacturer's Instructions submittals documented with the required approval.

#### 1.7.4.3 O&M Submittal Data

Provide a copy of SD-10 Operation and Maintenance Data submittals documented with the required approval.

#### 1.7.4.4 Parts Identification

Provide identification and coverage for the parts of each component, assembly, subassembly, and accessory of the end items subject to replacement. Include special hardware requirements, such as requirement to use high-strength bolts and nuts. Identify parts by make, model, serial number, and source of supply to allow reordering without further identification. Provide clear and legible illustrations, drawings, and exploded views to enable easy identification of the items. When illustrations omit the part numbers and description, both the illustrations and separate listing must show the index, reference, or key number that will cross-reference the illustrated part to the listed part. Group the parts shown in the listings by components, assemblies, and subassemblies in accordance with the manufacturer's standard practice. Parts data may cover more than one model or series of equipment, components, assemblies, subassemblies, attachments, or accessories, such as typically shown in a master parts catalog.

#### 1.7.4.5 Warranty Information

List and explain the various warranties and clearly identify the servicing and technical precautions prescribed by the manufacturers or contract documents in order to keep warranties in force. Include warranty information for primary components of the system. Provide copies of warranties required by Section 01 78 00 CLOSEOUT SUBMITTALS.

#### 1.7.4.6 Extended Warranty Information

List all warranties for products, equipment, components, and sub-components whose duration exceeds one year. For each warranty listed, indicate the applicable specification section, duration, start date, end date, and the point of contact for warranty fulfillment. Also, list or reference the specific operation and maintenance procedures that must be performed to keep the warranty valid. Provide copies of warranties required by Section 01 78 00 CLOSEOUT SUBMITTALS.

#### 1.7.4.7 Personnel Training Requirements

Provide information available from the manufacturers that is needed for use in training designated personnel to properly operate and maintain the equipment and systems.

#### 1.7.4.8 Testing Equipment and Special Tool Information

Include information on test equipment required to perform specified tests and on special tools needed for the operation, maintenance, and repair of components. Provide final set points.

#### 1.7.4.9 Testing and Performance Data

Include completed prefunctional checklists, functional performance test forms, and monitoring reports. Include recommended schedule for retesting and blank test forms. Provide final set points.

#### 1.7.4.10 Field Test Reports

Provide a copy of Field Test Reports (SD-06) submittals documented with the required approval.

#### 1.7.4.11 Contractor Information

Provide a list that includes the name, address, and telephone number of the General Contractor and each Subcontractor who installed the product or equipment, or system. For each item, also provide the name address and telephone number of the manufacturer's representative and service organization that can provide replacements most convenient to the project site. Provide the name, address, and telephone number of the product, equipment, and system manufacturers.

### 1.8 SCHEDULE OF OPERATION AND MAINTENANCE DATA PACKAGES

Provide the O&M data packages specified in individual technical sections. The information required in each type of data package follows:

#### 1.8.1 Data Package 1

- a. Safety precautions and hazards
- b. Cleaning recommendations
- c. Maintenance and repair procedures
- d. Warranty information
- e. Extended warranty information
- f. Contractor information
- g. Spare parts and supply list

#### 1.8.2 Data Package 2

- a. Safety precautions and hazards
- b. Normal operations
- c. Environmental conditions
- d. Lubrication data

- e. Preventive maintenance plan, schedule, and procedures
- f. Cleaning recommendations
- g. Maintenance and repair procedures
- h. Removal and replacement instructions
- i. Spare parts and supply list
- j. Parts identification
- k. Warranty information
- l. Extended warranty information
- m. Contractor information

1.8.3 Data Package 3

- a. Safety precautions and hazards
- b. Operator prestart
- c. Startup, shutdown, and post-shutdown procedures
- d. Normal operations
- e. Emergency operations
- f. Environmental conditions
- g. Operating log
- h. Lubrication data
- i. Preventive maintenance plan, schedule, and procedures
- j. Cleaning recommendations
- k. Troubleshooting guides and diagnostic techniques
- l. Wiring diagrams and control diagrams
- m. Maintenance and repair procedures
- n. Removal and replacement instructions
- o. Spare parts and supply list
- p. Product submittal data
- q. O&M submittal data
- r. Parts identification
- s. Warranty information
- t. Extended warranty information

- u. Testing equipment and special tool information
- v. Testing and performance data
- w. Contractor information
- x. Field test reports

1.8.4 Data Package 4

- a. Safety precautions and hazards
- b. Operator prestart
- c. Startup, shutdown, and post-shutdown procedures
- d. Normal operations
- e. Emergency operations
- f. Operator service requirements
- g. Environmental conditions
- h. Operating log
- i. Lubrication data
- j. Preventive maintenance plan, schedule, and procedures
- k. Cleaning recommendations
- l. Troubleshooting guides and diagnostic techniques
- m. Wiring diagrams and control diagrams
- n. Repair procedures
- o. Removal and replacement instructions
- p. Spare parts and supply list
- q. Repair work-hours
- r. Product submittal data
- s. O&M submittal data
- t. Parts identification
- u. Warranty information
- v. Extended warranty information
- w. Personnel training requirements
- x. Testing equipment and special tool information



y. Testing and performance data

z. Contractor information

aa. Field test reports

#### 1.8.5 Data Package 5

a. Safety precautions and hazards

b. Operator prestart

c. Start-up, shutdown, and post-shutdown procedures

d. Normal operations

e. Environmental conditions

f. Preventive maintenance plan, schedule, and procedures

g. Troubleshooting guides and diagnostic techniques

h. Wiring and control diagrams

i. Maintenance and repair procedures

j. Removal and replacement instructions

k. Spare parts and supply list

l. Product submittal data

m. Manufacturer's instructions

n. O&M submittal data

o. Parts identification

p. Testing equipment and special tool information

q. Warranty information

r. Extended warranty information

s. Testing and performance data

t. Contractor information

u. Field test reports

v. Additional requirements for HVAC control systems

## PART 2 PRODUCTS

Not Used

## PART 3 EXECUTION

### 3.1 TRAINING

Prior to acceptance of the facility by the Contracting Officer for Beneficial Occupancy, provide comprehensive training for the systems and equipment specified in the technical specifications. The training must be targeted for the building maintenance personnel, and applicable building occupants. Instructors must be well-versed in the particular systems that they are presenting. Address aspects of the Operation and Maintenance Manual submitted in accordance with Section 01 78 00 CLOSEOUT SUBMITTALS. Training must include classroom or field lectures based on the system operating requirements. The location of classroom training requires approval by the Contracting Officer.

#### 3.1.1 Training Plan

Submit a written training plan to the Contracting Officer for approval at least 60 calendar days prior to the scheduled training. Training plan must be approved by the Quality Control Manager (QC) prior to forwarding to the Contracting Officer. Also, coordinate the training schedule with the Contracting Officer and QC. Include within the plan the following elements:

- a. Equipment included in training
- b. Intended audience
- c. Location of training
- d. Dates of training
- e. Objectives
- f. Outline of the information to be presented and subjects covered including description
- g. Start and finish times and duration of training on each subject
- h. Methods (e.g. classroom lecture, video, site walk-through, actual operational demonstrations, written handouts)
- i. Instructor names and instructor qualifications for each subject
- j. List of texts and other materials to be furnished by the Contractor that are required to support training
- k. Description of proposed software to be used for video recording of training sessions.

#### 3.1.2 Training Content

The core of this training must be based on manufacturer's recommendations and the operation and maintenance information. The QC is responsible for overseeing and approving the content and adequacy of the training. Spend 95 percent of the instruction time during the presentation on the OPERATION AND MAINTENANCE DATA. Include the following for each system training presentation:

- a. Start-up, normal operation, shutdown, unoccupied operation, seasonal changeover, manual operation, controls set-up and programming, troubleshooting, and alarms.
- b. Relevant health and safety issues.
- c. Discussion of how the feature or system is environmentally responsive. Advise adjustments and optimizing methods for energy conservation.
- d. Design intent.
- e. Use of O&M Manual Files.
- f. Review of control drawings and schematics.
- g. Interactions with other systems.
- h. Special maintenance and replacement sources.
- i. Tenant interaction issues.

#### 3.1.3 Training Outline

Provide the Operation and Maintenance Manual Files (Bookmarked PDF) and a written course outline listing the major and minor topics to be discussed by the instructor on each day of the course to each trainee in the course. Provide the course outline 14 calendar days prior to the training.

#### 3.1.4 Training Video Recording

Record classroom training session(s) on video. Provide to the Contracting Officer two copies of the training session(s) in DVD video recording format. Capture within the recording, in video and audio, the instructors' training presentations including question and answer periods with the attendees. The recording camera(s) must be attended by a person during the recording sessions to assure proper size of exhibits and projections during the recording are visible and readable when viewed as training.

#### 3.1.5 Unresolved Questions from Attendees

If, at the end of the training course, there are questions from attendees that remain unresolved, the instructor must send the answers, in writing, to the Contracting Officer for transmittal to the attendees, and the training video must be modified to include the appropriate clarifications.

#### 3.1.6 Validation of Training Completion

Ensure that each attendee at each training session signs a class roster daily to confirm Government participation in the training. At the completion of training, submit a signed validation letter that includes a sample record of training for reporting what systems were included in the training, who provided the training, when and where the training was performed, and copies of the signed class rosters. Provide two copies of the validation to the Contracting Officer, and one copy to the Operation and Maintenance Manual Preparer for inclusion into the Manual's documentation.

### 3.1.7 Quality Control Coordination

Coordinate this training with the QC in accordance with Section  
01 45 00.00 10 QUALITY CONTROL.

### 3.2 WITHHOLDING FOR O&M MANUALS

Failure to submit all specified operation and maintenance manuals, training videotapes, spare parts listings, spare parts, special tools and inventories of installed property in a timely manner shall be cause for withholding of payment. A percentage of payment representing the cost of the aforementioned shall be withheld until all the above listed items have been received and approved. On those systems where complete and comprehensive operation and maintenance instructions cannot be fully developed until the system is checked, tested, and/or balanced, a proposed draft shall be submitted within the above specified time. The fully developed and completed package shall be submitted not more than 30 days after the system has been checked, tested and/or balanced. Upon approval, the funds being withheld shall be returned to the Contractor.

-- End of Section --

## SECTION 01 78 24.00 10

### FACILITY DATA REQUIREMENTS

#### PART 1 GENERAL

This specification requires the collection, organization, and turnover of electronic Facility Data for specific assets designed and constructed as part of this contract. Provide a Facility Document Set (FDS) and Facility Data Workbook (FDW) as defined in this specification. See Sections 01 33 00 SUBMITTAL PROCEDURES, 01 78 00 CLOSEOUT SUBMITTALS, and 01 78 23 OPERATION AND MAINTENANCE DATA, for additional Facility Data delivery requirements.

#### 1.1 DEFINITIONS AND ABBREVIATIONS

##### 1.1.1 Assets

Assets are specific items of property or equipment.

##### 1.1.2 Attributes

Attributes are individual pieces of Facility Data that describe facilities and their associated assets.

##### 1.1.3 Facility Data

Information defined and collected in the Facility Data Workbook (FDW) and Facility Document Set (FDS).

##### 1.1.4 Facility Document Set (FDS)

An electronically compiled and organized document containing the supporting documents and data used to populate the Facility Data Workbook during its respective phase of development.

- a. For design-based deliverables, the FDS contains the "Design Complete" or "Issued for Construction" (IFC) design drawings, specifications, and design analysis.

##### 1.1.5 Facility Data Workbook (FDW)

A pre-formatted spreadsheet template used to compile Asset, Attribute, Facility, and Space Data that the Government wishes to manage via electronic means. The FDW also contains all requirements associated with proper collection, organization, and turnover of the Facility Data.

##### 1.1.6 Facility Data Project Execution Plan (FDPxP)

A document that describes the clear and organized plan for the collection, organization, and turnover of the Facility Data deliverables required by this specification.

#### 1.2 UNITS OF MEASURE

Provide Facility Data deliverables utilizing the units of measure identified in the Contract Documents.

### 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. Submittals with an "S" are for inclusion in the Sustainability eNotebook, in conformance to Section 01 33 29 SUSTAINABILITY REPORTING. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

#### SD-01 Preconstruction Submittals

Facility Data Project Execution Plan (FDPxP)

#### SD-05 Design Data

Facility Data Workbook, Design; G

Facility Document Set, Design; G

### 1.4 QUALITY ASSURANCE

#### 1.4.1 Facility Data Project Execution Plan (FDPxP)

Provide the Government with a plan for the collection, organization, and turnover of the Facility Data deliverables to the Government. At a minimum, include the following items in the FDPxP:

##### 1.4.1.1 Front Matter

Provide a Cover Page, Table of Contents, and Executive Summary/Objectives.

##### 1.4.1.2 Project Information

List the Project Owner, Project Name, Project Location and address, Contract Type, Project Description, Project/Contract Number, Project Milestones.

##### 1.4.1.3 Submittal Schedule

Identify delivery schedule for all deliverables in compliance with the submission requirements identified in this specification.

##### 1.4.1.4 Personnel

Identify key personnel involved in the development of the Facility Data deliverables including Contractor and Government personnel.

##### 1.4.1.5 Facility Data Workbook(s)

Identify Facility and Space Data as applicable at time of FDPxP submission. Individually list every asset group from the FDW Requirements that will require Facility Data collection. No attribute data is required at this time. Identify any asset groups from the FDW Requirements that are not required within the scope of this Contract. Document the version of FDW to be used through the duration of the project.

#### 1.4.1.6 Facility Document Set(s)

Define structure and format of the submittal. Provide a comprehensive outline of the final FDS to be delivered. Organize the outline with headings, titles, and descriptions such that the Government may ascertain that working documents comply with the formatting requirements defined by this specification.

#### 1.4.1.7 Protocols

Detailed procedures:

- a. Facility Data documentation/collection process.
- b. Facility Document Set production/development process.
- c. Collaboration procedures including strategy, meetings, communication, and subcontractor/consultant involvement.
- d. Quality Control, including site verification of FDW, as applicable.
- e. File and folder naming structure.
- f. Hardware and software being used for collection and organization of Facility Data. Identify type, format, and anticipated organization of digital storage media to be provided as part of required deliverables. Include means and methods for checking deliverables for malicious content.

#### 1.4.2 Meetings

To assure that Facility Data requirements are being met through the duration of the project, organize the following meetings and discuss the subsequent topics:

##### 1.4.2.1 Post-Award Kickoff Meeting

At a minimum, discuss the following:

- a. The requirement for Facility Data deliverables under this contract.
- b. Primary roles and responsibilities associated with the development and delivery of the Facility Data deliverables, and.
- c. Identify and agree upon a date and attendance list for the meetings described below:

##### 1.4.2.2 FDPxP Coordination Meeting

- a. Facilitate a meeting following submission and Government review of the FDPxP. Include the Facility Data Preparer(s), Designer of Record (DOR), Quality Control (QC) Manager, Government's Facility Data Proponent, Contracting Officer's Representative, and Base Civil Engineer (BCE) Facilities Management Specialist (FMS). Also include any Government personnel required for obtaining security clearances and waivers for proper Facility Data collection in this meeting.
- b. The purpose of this meeting is to coordinate the efforts necessary by contract parties to ensure an accurate collection, preparation,

quality control, and submittal of these deliverables.

- c. The FDPxP serves as the primary agenda for this meeting. At a minimum, discuss the following:

- (1) Processes and methods of gathering facility data during construction. Discuss and obtain special permissions and/or waivers as necessary (photo waivers, data encryption, etc.);
- (2) Contractor Quality Control practices and procedures;
- (3) Corrective actions necessary for Government approval of FDPxP;
- (4) Necessity for additional or recurring Facility Data Coordination Meetings outside of those required by this specification, as requested by the Contractor. Intent of these meetings would be to maintain regular contact between responsible parties of the Contractor and Government with regard to development of the facility data deliverables. Conduct status meetings with a frequency agreed upon at this meeting.

#### 1.4.2.3 Submittal Coordination Meeting

- a. Facilitate a meeting following submission and Government review of each design or progress submittal of the Facility Data. Include the Facility Data Preparer(s), Designer of Record (DOR), Quality Control (QC) Manager, [Commissioning Authority \(CA\)](#), Government's Facility Data Proponent, Contracting Officer's Representative, and Base Civil Engineer (BCE) Facilities Management Specialist (FMS). Include Mechanical, Electrical, Plumbing, and Fire Protection subcontractors as applicable.
- b. The purpose of this meeting is to demonstrate ongoing compliance with the requirements identified in this specification.
- c. The applicable deliverables, along with Government remarks associated with review of these submittals serve as the primary guide and agenda for this meeting. At a minimum, discuss the following during this meeting:
  - (1) Review assets, applicable attributes, facility, and space data in FDW at time of submittal;
  - (2) Demonstrate Quality Control and site verification procedures, as applicable, by Contractor QC;
  - (3) Review contents and organization of FDS at time of submittal;
  - (4) Discuss Government review comments and/or unresolved items preventing completion and Government approval of the Facility Data Workbook and Facility Document Set.

#### 1.4.3 Facility Turnover and Contract Closeout

Include the Facility Document Set, Construction Final as a deliverable in Facility Turnover and Contract Closeout procedures as defined in [01 78 00 CLOSEOUT SUBMITTALS](#).



#### 1.4.4 Facility Data Workbook Quality Requirements

For each submittal, ensure that the information contained in the FDW(s) reflects the minimum content requirements defined in the PART 3 EXECUTION portion of this section. Ensure that information provided as part of the FDW(s) conforms to the standards described below:

- a. Compile FDW(s) using approved spreadsheet templates. Do not alter the formatting or organizational layout of the templates in any way. For this Contract, templates are available for download from the USACE CAD/BIM Technology Center website, site information provided in the PART 2 PRODUCTS portion of this section.
- b. Instructions for the proper maintenance and completion of these FDWs are contained in the FDW Requirements contained within the FDW template.

#### 1.4.5 Facility Document Set Quality Requirements

Ensure that information provided as part of each FDS conforms to the electronic and data formatting standards identified in 01 33 00 SUBMITTAL REQUIREMENTS and 01 78 23 OPERATION AND MAINTENANCE DATA.

#### 1.4.6 Facility Document Set Integrity Requirements

Ensure that information provided as part of each FDS conforms to the integrity standards identified below:

##### 1.4.6.1 File Protection

Do not restrict data files, document files or photographic files from being printed, exported, modified or copied. Do not deliver files with any restrictions (expiration date, locks, etc.) for access, viewing, archiving, or editing.

##### 1.4.6.2 Manufacturer-Specific Documents

Provide text-searchable, vector-based document files from the manufacturer's online or electronic documentation. Color documents are preferred. Provide documents specific to the product(s) installed under this Contract. When possible, do not submit document files containing multiple product catalogs from the same manufacturer, or product data from multiple manufacturers in the same file. Provide documents directly from the manufacturer whenever possible. Do not provide scanned copies of hardcopy documents.

#### 1.5 DELIVERY, STORAGE, AND HANDLING

Deliver facility data submittals in an organized and legible manner. Provide submittals adhering to the requirements of 01 33 00 SUBMITTAL REQUIREMENTS and 01 78 23 OPERATION AND MAINTENANCE DATA.

##### 1.5.1 Number of Copies

Provide three identical copies of disks for approval; for each submittal and each facility required. Provide on approved electronic media (one copy per disk or set of disks) as defined below. Provide submittal files on electronic storage media in compliance with the quality requirements identified in this specification.

### 1.5.2 Malicious Content

Scan all files for malicious viruses using a commercially available scanning program that is routinely updated to identify and remove current virus threats.

### 1.5.3 Storage Media

Provide facility data on disk-based (DVD-R/RW) media. Any deviations from the required storage media must be approved by the Government. Select and apply technology used for electronic data transmission to ensure that the full Facility Data submittal for each facility is provided on one single disk, whenever possible. When separation of the submittal is required, first separate the FDS and the FDW onto separate media. Second, separate FDS into logical segments or components. Any further divisions must be documented in the FDPxP and approved by the Government.

Provide Facility Data on disk-based (DVD-R/RW) media. Any deviations from the required storage media shall be approved by the Government. Select and apply technology used for electronic data transmission to ensure that the full Facility Data submittal for each facility is provided on one single disk, whenever possible. When separation of the submittal is required, first separate the FDS and the FDW onto separate media. Second, separate FDS into logical segments or components. Any further divisions must be documented in the FDPxP and approved by the Government.

- a. Apply a label directly printed to storage media. Do not provide adhesive, paper-based labels. List the name of the facility, Project, Project location, Contract number, Designer of Record firm/Prime Contractor company's name, title of submission, and security classification (in accordance with the appropriate security classification labeling regulations) on the label. If multiple disks are provided, clearly document the contents of each disk on the label.
- b. Include the name and contact information of the individual who produced the final data disk to ensure that any problems with the data or media can be easily resolved.
- c. When browsed on any computer, the disk shall display the following folders and their associated content:
  - (1) Facility Data Workbook (containing 1 FDW per facility);
  - (2) Facility Document Set (containing 1 FDS per facility);
  - (3) FDPxP (containing 1 PxP per contract);
  - (4) Readme (Containing 1 TXT, PDF, or HTML file with general use information, organizational instructions, and basic preparer contact information. Include all information included on the storage media label).

## PART 2 PRODUCTS

### 2.1 FACILITY DATA WORKBOOK(S)

Provide one compiled FDW for each facility. Complete all portions of each FDW including facility, space, asset, and attribute data in compliance

with the FDW Requirements.

The current FDW template (.xlsm format) shall be downloaded from the USACE CAD/BIM Technology Center website at <https://cadbimcenter.erdcdren.mil>.

#### 2.1.1.1 Spaces

Provide data for all applicable spaces in the facility. Minimum space definitions are as follows:

- a. Provide all rooms as defined in the design documents.
- b. If not otherwise defined, provide a minimum of one "roof" space in the FDW.
- c. If not otherwise defined, provide a minimum of one "site" space in the FDW.
- d. Provide all spaces not otherwise described, but necessary to accurately indicate the location of all FDW assets required by this specification.

#### 2.1.1.2 Assets

- a. Compile an FDW that contains the maintainable and warrantable equipment (assets) associated with each facility. This includes assets in contract scope and within the project extents. See 01 78 00 CLOSEOUT SUBMITTALS for related requirements. Assets shall include but are not limited to those types described in the "Required Assets" portion of the FDW template and any additional assets defined in the FDPxP. FDW asset entries shall be individually itemized (instance-based). Entries indicative of multiple assets (type-based) are not allowed.

Assets applicable to the scope of this project shall be documented in the FDPxP.

- b. Sub-component assets that are an integral and functional part of another component (e.g. An electric motor that serves as part of an air-handling unit) need not be duplicated or listed separately as its own asset.
- c. Definitions, descriptions, and formatting requirements for these assets can be found in the FDW Requirements contained within the FDW template.
- d. If an asset type is not included in the scope of the Project, no Facility Data (assets or attributes) are to be included in the FDW (even as a placeholder) for that asset type.

#### 2.1.1.3 Attributes

- a. Populate each individual asset with all required attributes defined in the "Required Attributes" portion of the FDW template.
- b. Definitions, descriptions, and formatting requirements for these attributes can be found in the FDW Requirements contained within the FDW template.
- c. If an attribute is not applicable, populate that field with "N/A." Do

not leave it blank.

## 2.2 FACILITY DOCUMENT SET

### 2.2.1 Organization

Organize the FDS in a hierarchical manner as follows. Use electronic bookmarks to create an easily navigable document. The first and primary hierarchical level must contain the following bookmarks:

- a. "Design Data" - See subordinate hierarchical requirements in the "DESIGN DATA HIERARCHY" paragraph.
- b. "O&M Data" - See subordinate hierarchical requirements in the "O&M DATA HIERARCHY" paragraph.
- c. "Record Drawings" - See subordinate hierarchical requirements in paragraph RECORD DRAWINGS HIERARCHY.

#### 2.2.1.1 Design Data Hierarchy

Under "Design Data," provide all Government-Approved "Design Complete" or "Issued for Construction" design documents as identified in the contract documents, including:

- a. Design Drawings - Provide the Government-Approved, "Design Complete" or "Issued for Construction" design drawings.
- b. Design Specifications - Provide the Government-Approved, "Design Complete" or "Issued for Construction" design specifications.
- c. Design Analysis - Provide the "Design Complete" or "Issued for Construction" Government-Approved Design Analysis.

#### 2.2.1.2 O&M Data Hierarchy

Under "O&M Data" provide all Government-Approved O&M Data Packages as defined in 01 78 23 OPERATION AND MAINTENANCE DATA and as required by technical specifications contained within this contract. Further organize this information under the following hierarchical levels:

- a. The contract specification and title under which the Data Package and the associated equipment or system references. (e.g. 26 23 00.00 40 - SWITCHBOARDS AND SWITCHGEAR)
- b. The Data Package Number as defined in 01 78 23 OPERATION AND MAINTENANCE DATA. (e.g. Data Package 2)

#### 2.2.1.3 Record Drawings Hierarchy

Under "Record Drawings" provide an electronic copy of the Government-Approved record drawings, as specified in 01 78 00 CLOSEOUT SUBMITTALS, for the project in PDF format. Further group discipline sheets under the following hierarchical levels:

- a. The full discipline heading represented by the contents of the sheet and as shown in the Record Drawing Sheet Index. Organize these headings in the order that the drawings set is organized. (General, Civil, Structural, Architectural, Interiors, Plumbing, Mechanical,

Electrical, Telecommunications, etc.)

- b. The Sheet ID and Sheet Name as found in the Record Drawing Sheet Index and in accordance with the AEC CAD Standard referenced in 01 78 00 CLOSEOUT SUBMITTALS. (e.g. G-001 - LEGEND; CS101 - SITE PLAN AREA 101; A-101 - OVERALL FIRST FLOOR PLAN; P-601 - FIRST FLOOR DWS WATER RISER DIAGRAM, etc.)

### PART 3 EXECUTION

#### 3.1 DESIGN SUBMITTALS

Not used.

#### 3.2 FACILITY DATA WORKBOOK VERIFICATION

Verify the FDW through the quality control personnel and procedures as defined in the FDPxP. One-hundred percent accuracy of FDW information is required for Government acceptance of the Facility Data Workbook, Construction Final submittal.

-- End of Section --

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SECTION 01 91 00.15

TOTAL BUILDING COMMISSIONING

PART 1 GENERAL

1.1 SUMMARY

Commission the building systems listed herein. Employ the services of an independent Commissioning Firm. The Commissioning Firm must be a 1st tier subcontractor of the General or Prime Contractor and must be financially and corporately independent of all other subcontractors. The Commissioning Firm must employ a Lead Commissioning Specialist that coordinates all aspects of the commissioning process. Conform to the commissioning procedures outlined in this specification.

1.2 SYSTEMS TO BE COMMISSIONED

Commission the following systems:

Heating, Ventilating, Air Conditioning, and Refrigeration Systems (HVAC)  
Building Automation System  
Utility Monitoring and Control System  
Lighting Systems  
Power Distribution Systems  
Service Water Heating Systems  
Plumbing Systems  
Natural Gas and Propane Systems  
Water Pumping and Mixing Systems  
Energy and Water Utility Metering Systems and Submeters  
**Building Envelope: moisture and thermal integrity and air tightness**

1.3 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 HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS (ASHRAE)

**ASHRAE 180** (2012) Standard Practice for Inspection and Maintenance of Commercial Building HVAC Systems

**ASHRAE 202** (2013; Addenda B 2018) Commissioning Process for Buildings and Systems

ASSOCIATED AIR BALANCE COUNCIL (AABC)

**ACG Commissioning Guideline** (2005) Commissioning Guideline

NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB)

**NEBB Commissioning Standard** (2009) Procedural Standards for Whole Building Systems Commissioning of New

Construction; 3rd Edition

SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION  
(SMACNA)

SMACNA 1429

(1994) HVAC Systems Commissioning Manual,  
1st Edition

#### 1.4 COMMUNICATION WITH THE GOVERNMENT

The Lead Commissioning Specialist (CxS) must submit all plans, schedules, reports, and documentation directly to the Contracting Officer Representative concurrent with submission to the CQC System Manager. The Lead Commissioning Specialist must have direct communication with the Contracting Officer's Representative regarding all elements of the commissioning process; however, the Government has no direct contract authority with the Lead Commissioning Specialist.

#### 1.5 SEQUENCING AND SCHEDULING

##### 1.5.1 Sequencing

Complete the following prior to starting Functional Performance Tests of mechanical systems:

- a. All equipment and systems have been completed, cleaned, flushed, disinfected, calibrated, tested, and operate in accordance with contract documents and construction plans and specifications.
- b. Performance Verification Tests of the controls systems have been completed and the Performance Verification Test Report has been submitted and approved in accordance with Specification Section 23 09 00 INSTRUMENTATION AND CONTROL FOR HVAC.
- c. Testing, Adjusting, and Balancing has been completed and the Testing, Adjusting, and Balancing Report, has been submitted and approved in accordance with Specification Section 23 05 93 TESTING, ADJUSTING, AND BALANCING FOR HVAC and Section 23 09 23.02 BACNET DIRECT DIGITAL CONTROL FOR HVAC AND OTHER BUILDING CONTROL SYSTEMS.
- d. The building envelope is enclosed according to contract documents with final construction completed, the Air Barrier Pressure Tests have been completed and the Air Leakage Test Reports and Diagnostic Test Reports have been submitted and approved in accordance with Specification Section 07 05 23 PRESSURE TESTING AN AIR BARRIER SYSTEM FOR AIR TIGHTNESS.
- e. The Pre-Functional Checklists have been submitted and approved.
- f. The Certificate of Readiness for mechanical systems has been submitted and approved.

Complete the following prior to starting Functional Performance Tests of the electrical systems:

- a. All electrical and lighting equipment and systems have been completed, calibrated, tested, and operate in accordance with contract documents and construction plans and specifications.



- b. The building envelope is enclosed according to contract documents with final construction completed.
- c. Ceiling tiles, floor coverings, and window coverings are in place.
- d. The Certificate of Readiness for electrical systems has been submitted and approved.
- e. Lamps have completed a minimum 100-hour burn-in period.

#### 1.5.2 Project Schedule

Include the following tasks in the project schedule required by Section 01 32 01.00 10 PROJECT SCHEDULE. Ensure sufficient time is scheduled to accommodate the requirements of this specification section. The order of items listed below is not intended to imply a specified sequence:

- a. Submission and approval of the Commissioning Firm and Commissioning Specialist
- b. Submission and approval of the Testing, Adjusting, and Balancing (TAB) Firm and TAB Specialist specified in Section 23 05 93 TESTING, ADJUSTING, AND BALANCING FOR HVAC
- c. Submission and approval of the Construction Phase Commissioning Plan
- d. Installation of permanent utilities (gas, water, electric)
- e. Building Envelope Construction
- f. Submission and approval of the Building Envelope Inspection Checklists
- g. Air Barrier Pressure Tests specified in Section 07 05 23 PRESSURE TESTING AN AIR BARRIER SYSTEM FOR AIR TIGHTNESS
- h. Drainage and Vent, Building Sewers, Water Supply Systems and Backflow Prevention Assembly Tests specified in Section 22 00 00 PLUMBING, GENERAL PURPOSE
- i. Factory Acceptance Testing for each of the systems to be commissioned as required by technical specifications
- j. Manufacturer's Equipment Start-Up for each of the systems to be commissioned.
- k. Potable Water System Flushing specified in Section 22 00 00 PLUMBING, GENERAL PURPOSE
- l. Operational Tests of the plumbing system specified in Section 22 00 00 PLUMBING, GENERAL PURPOSE.
- m. Potable Water System Disinfection specified in Section 22 00 00 PLUMBING, GENERAL PURPOSE
- n. Submission and approval of the TAB Schematic Drawings, Report Forms, and Procedures specified in Section 23 05 93 TESTING, ADJUSTING, AND BALANCING FOR HVAC.
- o. Submission and approval of Duct Air Leakage Test Procedures specified

in Section 23 05 93 TESTING, ADJUSTING, AND BALANCING FOR HVAC

- p. Duct Air Leakage Test Execution specified in Section 23 05 93 TESTING, ADJUSTING, AND BALANCING FOR HVAC
- q. Submission and approval of the Final Duct Air Leakage Test Report specified in Section 23 05 93 TESTING, ADJUSTING, AND BALANCING FOR HVAC
- r. Testing, Adjusting, and Balancing (TAB) Field Work required by Section 23 05 93 TESTING, ADJUSTING, AND BALANCING FOR HVAC
- s. Submission and approval of the TAB Report specified in Section 23 05 93 TESTING, ADJUSTING, AND BALANCING FOR HVAC
- t. TAB Field Acceptance Testing required by Section 23 05 93 TESTING, ADJUSTING, AND BALANCING FOR HVAC
- u. Submission and approval of the Start-Up Testing Report specified in Section 23 09 00 INSTRUMENTATION AND CONTROL FOR HVAC.
- v. Submission and approval of the Performance Verification Test Procedures specified in Section 23 09 00 INSTRUMENTATION AND CONTROL FOR HVAC.
- w. Performance Verification Tests required by Section 23 09 00 INSTRUMENTATION AND CONTROL FOR HVAC
- x. Performance Verification Test Report specified in Section 23 09 00 INSTRUMENTATION AND CONTROL FOR HVAC
- y. Pre-Functional Checklist Submittal
- z. Functional Performance Testing for each system to be commissioned
- aa. Post-Test Deficiency Correction for each system to be commissioned
- bb. Re-Testing
- cc. Endurance Tests
- dd. Training for each of the systems to be commissioned
- ee. Systems Manual and Computerized Maintenance Management System Manual, Maintenance Plan, and Service Life Plan submission and approval
- ff. Seasonal Testing

#### 1.6 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. Submittals with an "S" are for inclusion in the Sustainability eNotebook, in conformance to Section 01 33 29 SUSTAINABILITY REPORTING. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Commissioning Firm; G, DO

Lead Commissioning Specialist; G, DO

Technical Commissioning Specialists; G, DO

Commissioning Firm's Contract; G, DO

#### SD-06 Test Reports

Interim Construction Phase Commissioning Plan; G, DO

Final Construction Phase Commissioning Plan; G, DO S

Template Building Envelope Inspection Checklists; G, DO

Building Envelope Inspection Checklists; G, DO S

Pre-Functional Checklists; G, DO

Issues Log

Commissioning Report; G, DO

Post-Construction Trend Log Report; G, DO

#### SD-07 Certificates

Certificate of Readiness; G, DO

#### SD-10 Operation and Maintenance Data

Training Plan; G, RO

Training Attendance Rosters; G, RO

Systems Manual and Computerized Maintenance Management System  
Manual; G, DO

Maintenance and Service Life Plans; G, DO

### 1.7 COMMISSIONING FIRM

Provide a Commissioning Firm that is certified in commissioning by one of the following: the AABC Commissioning Group (ACG); the National Environmental Balancing Bureau (NEBB); the International Certification Board/Testing, Adjusting, and Balancing Bureau (ICB/TABB), the Building Commissioning Association (BCA); the Association of Energy Engineers (AEE). The Commissioning Firm may employ a commissioning professional certified by the University of Wisconsin-Madison or the American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE) as required in paragraph LEAD COMMISSIONING SPECIALIST as an alternative to certification of the Commissioning Firm. The Commissioning Firm must be certified in all systems to be commissioned to the extent such certifications are available from the certifying body. Describe any lapses in certification or disciplinary action taken by the certifying body against the proposed Commissioning Firm or Lead Commissioning Specialist in detail. Any firm or commissioning professional that has

been the subject of disciplinary action by the certifying body within the five years preceding contract award is not eligible to perform any duties related to commissioning.

- a. Submit the Commissioning Firm's certification of qualifications including the name of the firm and certifications no later than 60 calendar days after Notice to Proceed. Submit one hard copy and an electronic copy.
- b. The Commissioning Firm's and Commissioning Specialists' certifications must be maintained for the entire duration of the duties specified herein. If, for any reason, the firm or a specialist loses a certification during this period, immediately notify the [Contracting Officer's Representative](#) and submit another Commissioning Firm or Commissioning Specialist for approval. All work specified in this specification section performed by the Commissioning Firm or associated Commissioning Specialists is invalid if the Commissioning Firm or Commissioning Specialist loses its certification prior to contract completion and must be performed by an approved successor.
- c. The Commissioning Firm must oversee and assist the General or Prime Contractor with the work specified herein. Submit the [Commissioning Firm's Contract](#) including the Scope of Work associated with the paragraph POST-CONSTRUCTION SUPPORT no later than 30 calendar days after approval of the Commissioning Firm. Submit one hard copy and an electronic copy.
- d. The Commissioning Firm may act as the Pressure Test Agency required by [Section 07 05 23 PRESSURE TESTING AN AIR BARRIER SYSTEM FOR AIR TIGHTNESS](#) provided that all qualification requirements of that specification section are met.

#### 1.7.1 [Lead Commissioning Specialist](#)

The Commissioning Firm must provide a Lead Commissioning Specialist (CxC) that has a minimum of five years of commissioning experience, including two projects of similar size and complexity, and that is one of the following: a NEBB qualified Systems Commissioning Administrator (SCA); ACG Certified Commissioning Authority (CxA); ICB/TABB Certified Commissioning Supervisor; BCA Certified Commissioning Professional (CCP); AEE Certified Building Commissioning Professional (CBCP); University of Wisconsin-Madison Qualified Commissioning Process Provider (QCxP); ASHRAE Commissioning Process Management Professional (CPMP).

- a. Submit the Lead Commissioning Specialist's certification of qualifications including the name of the specialist and firm; certifications; years of experience; and a listing of representative projects of similar size and complexity no later than 60 calendar days after Notice to Proceed. Submit one hard copy and an electronic copy.
- b. The Lead Commissioning Specialists' certifications must be maintained for the entire duration of the duties specified herein. If, for any reason, the specialist loses a certification during this period, immediately notify the [Contracting Officer's Representative](#) and submit another Lead Commissioning Specialist for approval. All work specified in this specification section to be performed by the Lead Commissioning Specialist is invalid if the Lead Commissioning Specialist loses its certification prior to contract completion and must be performed by an approved successor.

- c. The Lead Commissioning Specialist must lead and oversee the commissioning work specified herein and be the primary point of contact for the Government regarding the commissioning work.

#### 1.7.2 Technical Commissioning Specialists

Technical Commissioning Specialists, employed by the Commissioning Firm and that have the following qualifications, must perform the technical work specified herein associated with each system to be commissioned:

- a. The technical work associated with mechanical systems including Heating, Ventilating, Air Conditioning, and Refrigeration Systems; Building Automation System; Utility Monitoring and Control System; Service Water Heating Systems; Plumbing Systems; Water Pumping and Mixing Systems; Energy and Water Utility Metering Systems must be performed by a Commissioning Specialist certified by NEBB, ACG, ICB/TABB, AEE, University of Wisconsin-Madison, ASHRAE, or BCA in the commissioning of HVAC systems with five years of experience in the commissioning of HVAC systems.
- b. The technical work associated with electrical systems including Lighting Systems; Power Distribution Systems; must be performed by an engineering technician certified by the InterNational Electrical Testing Association (NETA) or the National Institute for Certification in Engineering Technologies (NICET) with five years of experience inspecting, testing, and calibrating electrical distribution, systems, and devices.
- c. The technical work associated with the Building Envelope system must be performed by a registered architect with five years of building envelope design or construction experience. The Commissioning Firm team member with the required experience related to the building envelope may act as the Air Barrier Inspector required by specification section 07 27 10.00 10 BUILDING AIR BARRIER SYSTEM provided that all qualification requirements of that specification section are met. The Commissioning Firm team member with the required experience related to the building envelope may act as the thermographer required by specification section 07 05 23 PRESSURE TESTING AN AIR BARRIER SYSTEM FOR AIR TIGHTNESS provided that all of the qualification requirements of that specification section are met.
- d. Submit the Technical Commissioning Specialist's certification of qualifications including the name of the specialist and firm; certifications; years of experience; and a listing of representative projects of similar size and complexity no later than 60 calendar days after Notice to Proceed. Submit one hard copy and an electronic copy.

#### 1.7.3 Commissioning Standard

Comply with the requirements of the commissioning standard under which the Commissioning Firm and Specialists qualifications are approved. When the firm and specialists are certified by BCA, AEE, ASHRAE, or the University of Wisconsin-Madison, comply with the requirements of one of the acceptable standards unless otherwise stated herein. The acceptable standards are [ACG Commissioning Guideline](#), [NEBB Commissioning Standard](#), [SMACNA 1429](#), or [ASHRAE 202](#). Comply with applicable NETA and NICET testing standards for electrical systems.

- a. Implement all recommendations and suggested practices contained in the Commissioning Standard and electrical test standards.
- b. Use the Commissioning Standard for all aspects of Commissioning, including calibration of instruments.
- c. Where the instrument manufacturer calibration recommendations are more stringent than those listed in the Commissioning Standard, adhere to the manufacturer calibration recommendations.
- d. All quality assurance provisions of the Commissioning Standard such as performance guarantees are part of this contract.
- e. The Commissioning Specialists must develop commissioning procedures for any systems or system components not covered in the Commissioning Standard.
- f. Use any new requirements, recommendations, and procedures published or adopted prior to contract solicitation by the body responsible for the Commissioning Standard.

#### 1.8 ISSUES LOG

The Lead Commissioning Specialist must develop and maintain an Issues Log for tracking and resolution of all deficiencies discovered through commissioning review, inspection, and testing. Include the date of final resolution of issues as confirmed by the Commissioning Specialist. Submit the Issues Log on a monthly basis at a minimum. At any point during construction, any commissioning team member finding deficiencies may communicate those deficiencies in writing to the Commissioning Specialist for inclusion into the Issues Log.

Track construction deficiencies identified in the Issues Log using RMS CM as specified in Specification Section 01 45 00.15 10 RESIDENT MANAGEMENT SYSTEM CONTRACTOR MODE(RMS CM).

#### 1.9 CERTIFICATE OF READINESS

Prior to scheduling Functional Performance Tests for each system, issue a Certificate of Readiness for the system certifying that the system is ready for Functional Performance Testing. The Certificate of Readiness must include, for each system to be commissioned, all equipment and system start-up reports; Performance Verification Test Reports; completed Building Envelope Inspection Checklists; completed Pre-Functional Checklists; Testing, Adjusting, and Balancing (TAB) Report; HVAC Controls Start-Up Reports; and the Air Leakage Test Reports and Diagnostic Test Reports to the extent applicable to the system. The Contractor; the Lead Commissioning Specialist; the Contractor's Quality Control Representative; the Mechanical, Electrical, Controls, and TAB subcontractor representatives must sign and date the Certificate of Readiness. Submit the Certificate of Readiness for each system no later than 14 calendar days prior to Functional Performance Tests of that system. Submit one hard copy and an electronic copy. Do not schedule Functional Performance Tests for a system until the Certificate of Readiness for that system receives approval by the Government.

#### PART 2 PRODUCTS

Not used

## PART 3 EXECUTION

### 3.1 CONSTRUCTION PHASE

#### 3.1.1 Construction Commissioning Coordination Meeting

The Lead Commissioning Specialist must lead a Construction Commissioning Coordination Meeting no later than to discuss the commissioning process including contract requirements, lines of communication, roles and responsibilities, schedules, documentation requirements, inspection and test procedures, and logistics as specified in this specification section. The Contractor's Superintendent or Project Manager, the Contractor's Quality Control Representative, and the Government must attend this meeting. Invite the User and a Base Civil Engineer Office Representative to attend this meeting.

#### 3.1.2 Construction Phase Commissioning Plan

##### 3.1.2.1 Interim Construction Phase Commissioning Plan

The Lead Commissioning Specialist (CxC) must prepare the Interim Construction Phase Commissioning Plan. Submit the [Interim Construction Phase Commissioning Plan](#) no later than 30 calendar days after the Construction Commissioning Coordination Meeting and no later than 14 days prior to the start of construction of the building envelope. Submit one hard copy and an electronic copy.

Identify the commissioning and testing standards and outline the overall commissioning process, the commissioning schedule, the commissioning team members and responsibilities, lines of communication, documentation requirements for the construction phase of the project, and [Template Building Envelope Inspection Checklists](#) in the Interim Construction Phase Commissioning Plan.

##### 3.1.2.1.1 Checklists

Download example [Building Envelope Inspection Checklists](#), Pre-Functional Checklists, Functional Performance Test Checklists for specification section [01 91 00.15](#) TOTAL BUILDING COMMISSIONING at the following location: <http://www.wbdg.org/FFC/NAVGGRAPH/graphtoc.pdf>. The checklists submitted in the Interim and Final Construction Phase Commissioning Plans must contain the same level of detail shown in the examples. The submitted checklists are not required to match the format of the examples.

##### 3.1.2.1.2 Contents

In addition, include the following in the Interim Construction Phase Commissioning Plan:

- a. Plan purpose
- b. Commissioning scope
- c. Systems to be commissioned
- d. Examples and description of development of pre-functional and functional performance test checklists

- e. Building information
- f. Contact information for the Commissioning Specialists and the Commissioning Team listed in paragraph Commissioning Team
- g. Roles and responsibilities
- h. Management plan
- i. Owner's Project Requirements
- j. Basis of Design
- k. Description of design reviews by the Commissioning Specialists
- l. Description and templates for site observation reports and the issues log
- m. Listing and description of required meetings
- n. Identification and sequence of commissioning and acceptance tasks for incorporation into the Project Schedule
- o. Listing of required submittals to Government and Commissioning Specialists
- p. Description of execution of building envelope inspection, prefunctional checks, and functional performance tests
- q. Description of Endurance Tests
- r. Acceptance testing of critical systems as identified in contract specifications
- s. Operation and maintenance manual requirements
- t. Description of training requirements
- u. Description of required Systems Manual
- v. Description of the Commissioning Report

#### 3.1.2.1.3 Template Building Envelope Inspection Checklists

The Building Envelope Technical Commissioning Specialist must develop the Template Building Envelope Inspection Checklists. Include items that verify the building materials and construction maintain the required thermal and moisture integrity and air tightness of the building envelope system in the Building Envelope Inspection Checklists.

#### 3.1.2.2 Final Construction Phase Commissioning Plan

The Lead Commissioning Specialist (CxC) must prepare the Final Construction Phase Commissioning Plan. Submit the Final Construction Phase Commissioning Plan no later than 30 calendar days prior to the start of Pre-Functional Checks. Submit one hard copy and an electronic copy.

Include the information provided in the Interim Construction Phase Commissioning Plan. In addition, the Technical Commissioning Specialist



must develop the Pre-Functional Checklists, and Functional Performance Test Checklists for each building, for each system required to be commissioned, and for each component for inclusion in the Final Construction Phase Commissioning Plan.

#### 3.1.2.2.1 Pre-Functional Checklists

The Pre-Functional Checklists must include items for physical inspection or testing that demonstrate that installation and start-up of equipment and systems is complete. See paragraph Pre-Functional Checks for more information. Functional Performance test procedures must explain, step-by-step, the actions and expected results that will demonstrate that the system performs in accordance with the contract in the Functional Performance Test Checklists. See paragraph Functional Performance Tests for more information.

#### 3.1.2.2.2 Functional Performance Test Checklists

Functional Performance Test Checklists must include procedures that explain, step-by-step, the actions and expected results that will demonstrate that the system performs in accordance with the contract. See paragraph Functional Performance for more information. Include the following sections and details appropriate to the systems being tested in the Functional Performance Test Checklists:

- a. Notable system features including information about such attributes as system sizing and controls to facilitate understanding of system operation
- b. Conclusions and recommendations based on control system feature, point-to-point, actuator, and system operation observations. Conclusions must clearly indicate if system does or does not perform in accordance with contract requirements. Recommendation must clearly indicate that the system should or should not be accepted by the Government.
- c. Test conditions including date, beginning and ending time, and beginning and ending outdoor air conditions
- d. Attendees present throughout the entire system test
- e. Identification of the equipment involved in the test
- f. Control system feature identification including control point description, embedded/visible type, adjustable/monitoring type, actual value, and setpoint value/alarm range
- g. Point-to-point observations including demonstrating system flow meters and sensors have been calibrated and are correctly displayed on the Operator work station
- h. Actuator operation observations demonstrating actuator responses to commands from the control system
- i. As-found condition of the system operation
- j. List of test items with step numbers along with the corresponding feature or control operation, intended test procedure, expected system response, and pass/fail indication.

k. Space for comments for each test item.

1. System operation observations for system-based tests demonstrating each control algorithm, operation mode, and alarm condition resulting from control point(s) manipulation. System operation observations must contain the following:
  - (1) introduction identifying testing methodology
  - (2) as-found conditions prior to control point(s) manipulation
  - (3) clear list of test items (step numbers)
  - (4) control algorithm (design control sequence) segmented by unique functions
  - (5) intended test procedures following each segmented control algorithm identifying control point(s) required to be manipulated to initiate system response
  - (6) expected system response
  - (7) space for comments for each test item complete including resulting control signal such as 0-volts, 10-volts, active, or inactive
  - (8) pass or fail indication for each test item

3.1.2.2.3 Integrated Systems Test Checklists

Not Used.

3.1.3 Construction Submittals

Provide all submittals associated with the systems to be commissioned, including shop drawings; equipment submittals; test plans, procedures, and reports; and resubmittals to the Commissioning Specialists. The Technical Commissioning Specialist must review the submittals to the extent necessary to verify that the equipment and system installation will comply with the contract requirements and the requirements of the Basis of Design and the Owner's Project Requirements.

3.1.4 Inspection and Testing

Demonstrate that all system components have been installed, that each control device and item of equipment operates, and that the systems operate and perform, including interactive operation between systems, in accordance with contract documents and the Owner's Project Requirements. Requirements in related specification sections are independent from the requirements of this section and do not satisfy any of the requirements specified in this specification section. Provide all materials, services, and labor required to perform the Pre-Functional Checks, [Building Envelope Inspection](#), and Functional Performance Tests.

3.1.4.1 Commissioning Team

Provide a commissioning representative for each subcontractor associated with the systems to be commissioned. Each commissioning representative is responsible for coordination of their respective subcontractor's execution

of the commissioning activities and participation in the inspection and testing required by this specification section. The designers listed below are the designers of record for their respective systems. Substitutes must be approved by the [Contracting Officer's Representative](#).

#### 3.1.4.1.1 Building Envelope Inspections Team

The following team members must participate in building envelope inspections:

Designation	Function
CxB	Building Envelope Technical Commissioning Specialist
QAR	Contracting Officer's Quality Assurance Representative
CQC	Contractor's Quality Control Personnel
BEC	Contractor's Building Envelope Commissioning Representative

#### 3.1.4.1.2 Mechanical System Pre-Functional Checks Team

The following team members must participate in Pre-Functional checks of mechanical systems:

Designation	Function
CxM	Mechanical System Technical Commissioning Specialist
QAR	Contracting Officer's Quality Assurance Representative
CQC	Contractor's Quality Control Personnel
MC	Contractor's Mechanical Commissioning Representative
EC	Contractor's Electrical Commissioning Representative
CC	Contractor's Controls Commissioning Representative
TABC	Contractor's TAB Commissioning Representative
PC	Contractor's Plumbing Commissioning Representative
IC	Contractor's Irrigation Commissioning Representative

#### 3.1.4.1.3 Electrical System Pre-Functional Checks Team

The following team members must participate in Pre-Functional checks of electrical systems:

Designation	Function
CxE	Electrical System Technical Commissioning Specialist
QAR	Contracting Officer's Quality Assurance Representative
CQC	Contractor's Quality Control Personnel
EC	Contractor's Electrical Commissioning Representative

#### 3.1.4.1.4 Mechanical Systems Test Team

The following team members must participate in Functional Performance Testing of mechanical systems:

Designation	Function
CxM	Mechanical System Technical Commissioning Specialist
QAR	Contracting Officer's Quality Assurance Representative
CQC	Contractor's Quality Control Personnel
MC	Contractor's Mechanical Commissioning Representative
EC	Contractor's Electrical Commissioning Representative
CC	Contractor's Controls Commissioning Representative
TABC	Contractor's TAB Commissioning Representative
PC	Contractor's Plumbing Commissioning Representative
IC	Contractor's Irrigation Commissioning Representative

#### 3.1.4.1.5 Electrical Systems Test Team

The following team members must participate in Functional Performance Testing of electrical systems:

Designation	Function
CxE	Electrical System Technical Commissioning Specialist
QAR	Contracting Officer's Quality Assurance Representative
CQC	Contractor's Quality Control Personnel
EC	Contractor's Electrical Commissioning Representative

#### 3.1.4.1.6 Other Pre-Functional and Functional Performance Participants

The following may participate as team members during Pre-Functional Checks and Functional Performance Testing:

Designation	Function
BCE	Base Civil Engineer Office Representative
User	Using Agent's Representative

#### 3.1.4.2 Building Envelope Inspection

Document building envelope inspection by the commissioning team using the approved Template Building Envelope Inspection Checklists. Indicate commissioning team member inspection and acceptance of each Building Envelope Inspection Checklist item by initials at the time they are inspected and found to be in conformance with contract requirements. Inspect checklist items before they become hidden as construction progresses.

- a. Submit the completed and initialed Building Envelope Inspection Checklists no later than 7 calendar days after completion of inspection of all checklists items. Submit one hard copy and an electronic copy.
- b. The Building Envelope Technical Commissioning Specialist must make at least two site visits to the site to observe construction of the building envelope in-progress. On each visit, the Building Envelope Commissioning Specialist must review the Contractor's in-progress checklists to ensure that the commissioning team is inspecting the building envelope as required.
- c. The Building Envelope Technical Commissioning Specialist must witness the building envelope pressure tests and diagnostic tests specified in Specification Section 07 05 23 PRESSURE TESTING AN AIR BARRIER SYSTEM FOR AIR TIGHTNESS. The Building Envelope Technical Commissioning Specialist must review the resulting reports and provide recommendations for correction of any deficiencies or further testing.

#### 3.1.4.3 Pre-Functional Checks

Pre-Functional Checklists from the approved Final Construction Phase Commissioning Plan must be completed by the commissioning team. Complete one Pre-Functional Checklist for each individual item of equipment or system for each system required to be commissioned including, but not limited to, ductwork, piping, equipment, fixtures (lighting and plumbing), and controls. Indicate commissioning team member inspection and acceptance of each Pre-Functional Checklist item by initials. Acceptance of each Pre-Functional Checklist item by each team member indicates that item conforms to the construction contract requirements in their area of responsibility. Technical Commissioning Specialist acceptance of each Pre-Functional Checklist item indicates that each item has been installed correctly and in accordance with contract documents and the Owner's Project Requirements. Submit the completed and initialed Pre-Functional Checklists no later than 7 calendar days after completion of inspection of all checklists items for each system. Submit one hard copy and an

electronic copy. Include manufacturer start-up checklists associated with equipment with the submission of the Pre-Functional Checklists.

#### 3.1.4.4 Testing, Adjusting, and Balancing (TAB) Report and Field Acceptance Testing

The Mechanical System Technical Commissioning Specialist must review the pre-final TAB Report required by Specification Section 23 05 93 TESTING, ADJUSTING, AND BALANCING FOR HVAC. Identify any deficiencies to the Contracting Officer's Representative and the Contractor's Quality Control Personnel. Resolve all deficiencies prior to TAB Field Acceptance Testing.

The Mechanical System Technical Commissioning Specialist must witness the TAB Field Acceptance Testing specified by Section 23 05 93 TESTING, ADJUSTING, AND BALANCING FOR HVAC. Include a certification by the Mechanical Technical Specialist that no outstanding deficiencies exist in the systems relative to Testing, Adjusting, and Balancing with the final TAB Report submittal.

#### 3.1.4.5 HVAC Controls Test Reports

The Mechanical System Technical Commissioning Specialist must review the Front End and Integration, Start-Up Testing Report and the PVT Procedures and Reports required by Specification Section 23 09 00 INSTRUMENTATION AND CONTROL FOR HVAC. Include a certification by the Mechanical System Technical Commissioning Specialist that the submittals contain no deficiencies or that the submittals do not indicate any deficiencies in the HVAC systems or HVAC control systems with each of these submittals.

#### 3.1.4.6 Tests

##### 3.1.4.6.1 Functional Performance Tests

Schedule Functional Performance Tests for each system only after the Certificate of Readiness has been approved by the Government for the system. Correct all deficiencies identified through any prior review, inspection, or test activity before the start of Functional Performance Tests.

- a. Functional Performance Tests must be performed with the Contracting Officer's Quality Assurance Representative present.
- b. Abort Functional Performance Tests when any system deficiency prevents the successful completion of the test.
- c. Technical Commissioning Specialists must lead and document all Functional Performance Tests for the systems to be commissioned with the Contractor and appropriate subcontractors performing the Functional Performance Tests. The representatives listed in the paragraph Commissioning Team must attend the tests. Abort Functional Performance Tests when any required commissioning team member is not present for the test.

##### 3.1.4.6.1.1 Checklist

Use the Functional Performance Test Checklists from the approved Final Construction Phase Commissioning Plan to guide the Functional Performance Tests. Functional Performance Tests must be performed for each item of

equipment and each system required to be commissioned and verify all sensor calibrations, control responses, safeties, interlocks, operating modes, sequences of operation, capacities, lighting levels, and all other performance requirements comply with construction contract regardless of the specific items listed within the Functional Performance Test Checklists provided. Testing must progress from equipment or components to subsystems to systems to interlocks and connections between systems. The order of components and systems to be tested must be determined by the Technical Commissioning Specialists.

#### 3.1.4.6.1.2 Acceptance

Indicate acceptance of each item of equipment and systems tested by signature of each commissioning team member for each Functional Performance Test Checklist. The Contractor's Quality Control Representative and the Technical Commissioning Specialists must indicate acceptance after the equipment and systems are free of deficiencies.

#### 3.1.4.6.2 HVAC Test Methods

Perform Functional Performance Tests in accordance with the following:

##### 3.1.4.6.2.1 Prior to Testing

Prior to testing operating modes, sequences of operation, interlocks, and safeties, complete control point-to-point observations, test sensor calibrations, and test actuator commands.

##### 3.1.4.6.2.2 Simulating Conditions

Over-writing control input values through the controls system is not acceptable, unless approved by the Contracting Officer's Representative. Identify proposed exceptions in a protocol submitted to the Contracting Officer's Representative for approval. Before simulating conditions, overwriting values (if approved), or changing set-points, calibrate all sensors, transducers and devices. Below are several examples of exceptions that would be considered acceptable:

- a. When varying static pressures inside ductwork can not be simulated within the duct, and where a sensor signals the controls system to initiate sequences at various duct static pressures, it is acceptable to simulate the various pressures with a Pneumatic Squeeze-Bulb Type Signaling Device with gauge temporarily attached to the sensing tube leading to the transmitter. It is not acceptable to reset the various set-points, nor to simulate an electric analog signal (unless approved as noted above).
- b. Dirty filter pressure drops can be simulated using sheets of cardboard at filter face.
- c. Freeze-stat safeties can be simulated by packing portion of sensor with ice.
- d. High outside air temperatures can be simulated with a hair blower.
- e. High entering cooling coil temperatures can be used to simulate entering cooling coil conditions.
- f. Do not use signal generators to simulate sensor signals unless

approved by the [Contracting Officer's Representative](#), as noted above, for special cases.

- g. Control set points can be altered. For example, to see the air conditioning compressor lockout work at an outside air temperature below 55 degrees F, when the outside air temperature is above 55 degrees F, temporarily change the lockout set point to be 0 degrees F above the current outside air temperature. Caution: Set points are not to be raised or lowered to a point such that damage to the components, systems, or the building structure and/or contents will occur.
- h. Test duct mounted smoke detectors in accordance with the manufacturer's recommendations. Perform the tests with air system at minimum airflow condition in ductwork.
- i. Test current sensing relays used for fan and pump status signals to control system to indicate unit failure and run status by resetting the set point on the relay to simulate a lost belt or unit failure while the unit is running. Confirm that the failure alarm was generated and received at the control system. After the test is conducted, return the set point to its original set-point or a set-point as indicated by the [Contracting Officer's Representative](#).

#### 3.1.4.6.2.3 Setup

Perform each test under conditions that simulate actual conditions as close as is practically possible. Provide all necessary materials and system modifications to produce the necessary flows, pressures, temperatures, and other conditions necessary to execute the test according to the specified conditions. At completion of the test, return the affected building equipment and systems to their pre-test condition.

#### 3.1.4.6.3 Sample Strategy

#### 3.1.4.6.4 Seasonal Tests

##### 3.1.4.6.4.1 Initial Functional Performance Tests

Perform Initial Functional Performance Tests as soon as all contract work is completed, regardless of the season. Develop and implement means of artificial loading to demonstrate, to a reasonable level of confidence, the ability of the HVAC systems to handle peak seasonal loads.

##### 3.1.4.6.4.2 Full-Load Conditions

In addition to the Initial Functional Performance Tests, perform Functional Performance Tests of HVAC systems under full-load conditions during peak heating and cooling seasons during outdoor air condition design extremes.

Schedule Seasonal Functional Performance Tests in coordination with the Government.

##### 3.1.4.6.4.3 System Acceptance

Systems may be partially accepted prior to seasonal testing if they comply with all construction contract that can be tested during initial Functional Performance Tests. All Functional Performance Test procedures must be completed prior to full systems acceptance.



#### 3.1.4.6.5 Aborted Tests and Re-Testing

Abort Functional Performance Tests or Seasonal Tests if any deficiency prevents successful completion of the test or if any required commissioning team member is not present for the test. reimburse the Government for all costs associated with effort lost due to re-testing due to test failures and aborted tests. These costs must include salary, travel costs, and per diem for Government commissioning team members. Re-test only after all deficiencies identified during the original tests have been corrected.

##### 3.1.4.6.5.1 100 Percent Sample

Systems or equipment for which 100 percent sample size are tested fail if one or more of the test procedures results in discovery of a deficiency and the deficiency cannot be resolved within 5 minutes during the test.

Re-test to the extent necessary to confirm that the deficiencies have been corrected without negatively impacting the performance of the rest of the system.

#### 3.1.5 Training Plan

Develop a training plan which identifies all training required by specification sections associated with commissioned systems. Include a matrix listing each training requirement, content of the training, the trainer name, trainer contact information, and schedule and location of training. Submit one hard copy and an electronic copy of the Training Plan to the Commissioning Specialists and the Government no later than 30 calendar days prior to the associated training.

Document training attendance using training attendance rosters and provide completed attendance rosters to the Commissioning Specialists and the Government no later than 7 calendar days following the completion of training for each system to be commissioned. Submit one hard copy and an electronic copy.

#### 3.1.6 Systems Manual

Prepare and submit a Systems Manual and Computerized Maintenance Management System Manual including, for all commissioned systems, the Basis of Design, system single line diagrams, as-built sequences of operation and controls drawings, as-built control setpoints, recommended schedule for sensor and actuator calibration, recommended schedule of maintenance when not in the O&M manuals, recommended re-testing schedule with proposed testing forms, and full equipment warranty information. Update and resubmit the Systems Manual based on any corrective action taken during the warranty period. The Technical Commissioning Specialists must review the Systems Manual. Include a signed certification or letter from the Lead Commissioning Specialist stating that the Systems Manual is complete, clear, and accurate with the submittal.

Submit Systems Manual and Computerized Maintenance Management System Manual no later than 30 calendar days following completion of Functional Performance Tests. Submit one hard copy and an electronic copy.

### 3.1.7 Maintenance and Service Life Plans

#### 3.1.7.1 Maintenance Plan

Prepare and submit a Maintenance Plan for the project mechanical, electrical, plumbing, and fire protection systems. Prepare the HVAC and refrigeration sections of the Maintenance Plan in accordance with ASHRAE 180. Develop required inspection and maintenance tasks similar to Section 5 of ASHRAE 180 for the other commissioned systems and fire protection systems.

Submit the Maintenance Plan no later than 30 calendar days following the completion of Functional Performance tests. Submit one hard copy and an electronic copy.

#### 3.1.7.2 Service Life Plan

Prepare and submit a Service Life Plan for the building envelope, structural systems, and site hardscape that includes the following for each assembly or component:

- a. A description of each including the materials or products.
- b. The estimated service life, in years.
- c. The estimated maintenance frequency and description of maintenance tasks.
- d. The point of maintenance access for the components with estimated service life less than service life of the building.

Submit the Service Life Plan no later than 30 calendar days following the completion of Functional Performance tests. Submit one hard copy and an electronic copy.

### 3.2 COMMISSIONING REPORT

Following the completion of Functional Performance Tests with the exception of Seasonal Tests, the Lead Commissioning Specialist must prepare a Commissioning Report.

- a. Include an executive summary describing the overall commissioning process, the results of the commissioning process, any outstanding deficiencies and recommended resolutions, and any seasonal testing that must be scheduled for a later date. Indicate, in the executive summary, whether the systems meet the requirements of the construction contract and the Owner's Project Requirements.
- b. Detail any deficiencies discovered during the commissioning process and the corrective actions taken in the report. Include the completed Building Envelope Inspection Checklists, Pre-Functional Checklists, Functional Performance Test Checklists, the Commissioning Plans, the Issues Log, Performance Verification Test Reports, Training Attendance Rosters, and the final TAB Report.
- c. Submit the Commissioning Report no later than 14 calendar days following commissioning team acceptance of all Functional Performance Tests with the exception of Seasonal Tests. Submit one hard copy and an electronic copy.

- d. Following any Seasonal Tests or Post-Construction Activities, update the Final Commissioning Report to reflect any changes and resubmit. File the approved, updated, Final Commissioning Report in the Sustainability eNotebook.

### 3.3 POST-CONSTRUCTION SUPPORT

#### 3.3.1 Post-Construction Endurance Test

Perform an Endurance Test in accordance with the paragraph Endurance Test in Specification Section 23 09 00 INSTRUMENTATION AND CONTROL FOR HVAC once during the peak heating season and once during the peak cooling season during outdoor air condition extremes with the exception that network bandwidth usage measurement and recording is not required. Use the Temporary Trending Hardware, if necessary, in accordance with Specification Section 23 09 00 INSTRUMENTATION AND CONTROL FOR HVAC. Perform a one-week Endurance Test once during the peak heating season and once during the peak cooling season during outdoor air condition extremes using the building control system to trend all points shown as requiring a trend on the project schedules. If insufficient buffer capacity exists to trend the entire endurance test, upload trend logs during the course of the endurance test to ensure that no trend data is lost. Poll all points shown in the project schedules with an alarm condition at 5 minute intervals. Poll all points shown in the project schedules required for trending, overrides, or graphical displays at 15 minute intervals.

The Mechanical System Commissioning Specialists must review the trend logs from the Endurance Tests to ensure that the systems have stable operation and operate as required by the construction contract, and the Owner's Project Requirements. The Commissioning Specialists must provide a [Post-Construction Trend Log Report](#) that identifies any deficiencies noted in operation and includes a graphical representation of the trends. Provide one Trend Log Report for the peak cooling season and one Trend Log Report for the peak heating season. Submit one hard copy and one electronic copy of the Post-Construction Trend Log Reports no later than 14 calendar days following receipt of the trend log data by the Commissioning Specialist.

#### 3.3.2 Post-Construction Site Visit

The Commissioning Specialists must visit the building site concurrent with the 9-month warranty inspection to inspect building system equipment and review building operation with the building operating/maintenance staff. The Commissioning Specialists must identify any deficiency of the building systems to operate in accordance with the contract requirements and the Owner's Project Requirements. The Commissioning Specialists must advise the [Contracting Officer's Representative](#) of any identified deficiencies and the proposed corrective action. Submit an updated commissioning report and systems manual documenting the results of the post-construction inspection.

**APPENDIX A - OWNER'S PROJECT REQUIREMENTS**

**OWNER'S PROJECT REQUIREMENTS DOCUMENT**

Project: Project, Location, PN #####

Approved:

Name	Design Agent's Representative	Date
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Name	Owner's Representative	Date
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**OWNER'S PROJECT REQUIREMENTS DOCUMENT**

Contents

1. Owner and User Requirements
  - a. Primary Purpose, Program, and Use
  - b. Project History
  - c. Broad Goals
    - i. Future Expansion
    - ii. Flexibility
    - iii. Quality of Materials
    - iv. Construction Costs
    - v. Operational Costs
2. Environmental and Sustainability Goals
  - a. High Performance Building
  - b. Other
3. Energy Efficiency Goals
  - a. Goals/Policy
  - b. Systems and Feature Energy Impact
4. Indoor Environmental Quality Requirements
  - a. Space Type 1
    - i. Intended Use
    - ii. Occupancy Schedule
    - iii. Environmental Requirements
    - iv. Occupant System Control Ability
    - v. Type of Lighting
    - vi. After-hour Use Accommodation
  - b. Space Type 2
    - i. Intended Use
    - ii. Occupancy Schedule
    - iii. Environmental Requirements
    - iv. Occupant System Control Ability
    - v. Type of Lighting
    - vi. After-hour Use Accommodation
5. Equipment and System Expectations
  - a. HVAC Systems
    - i. Quality and Reliability
    - ii. Type
    - iii. Automation
    - iv. Flexibility
    - v. Maintenance Requirements
  - b. Lighting Systems
    - i. Quality and Reliability
    - ii. Type
    - iii. Automation
    - iv. Flexibility
    - v. Maintenance Requirements
  - c. Domestic Hot Water Systems
    - i. Quality and Reliability
    - ii. Type
    - iii. Automation
    - iv. Flexibility
    - v. Maintenance Requirements

Contents (continued)

- d. Onsite Power Systems
  - i. Quality and Reliability
  - ii. Type
  - iii. Automation
  - iv. Flexibility
  - v. Maintenance Requirements
- e. Other Systems
  - i. Quality and Reliability
  - ii. Type
  - iii. Automation
  - iv. Flexibility
  - v. Maintenance Requirements
- 6. Building Occupant and O&M Personnel Requirements
  - a. Facility Operation
  - b. UMCS (EMCS or FMCS)
  - c. Occupant Training and Orientation
  - d. O&M Staff Training and Orientation

1. Owner and User Requirements

a. Primary Purpose, Program, and Use

Explain the purpose, program, and use of the facility. (i.e. Army Reserve Center used for training reserve units. Training includes spaces such as weapons, medical, vehicle repair, cooking, etc.)

b. Project History

Explain the history of the project related to design/construction (i.e. D/B/B, D/B, IDIQ, JOC, COE in-house, A/E, etc.). Explain any additional project background that would impact energy/sustainability goals.

c. Broad Goals

i. Future Expansion: Explain goals related to potential future expansion.

ii. Flexibility: Explain goals related to flexibility for layout and use of the building. (i.e. high rate of office churn, expected frequency of renovation, etc.)

iii. Quality of Materials: Explain goals related to quality of materials. (i.e. highest quality materials, 50 yr life, 25 yr life, highest quality within budget, etc.)

iv. Construction Costs: Explain goals related to construction costs. (i.e. how low can you go, set project amount, select simplest systems for low cost, etc.)

v. Operational Costs: Explain goals related to operational costs. (i.e. low utilities based on water and energy conservation, trade-off allowable on maintenance costs to reduce utility cost, utility cost unimportant compared to construction cost, etc.)



## 2. Environmental and Sustainability Goals

### a. High Performance Building

Set goal of High Performance Building and explain sustainable features permissible or preferred to be incorporated. Explain relative importance of goal within project scope. Indicate requirement from specific criteria and policy.

### b. Other

Explain any special sustainability or environmental goals associated with the project. Identify specific sustainability features that may be required or desired. (i.e. hydro-power, solar power, onsite water treatment, onsite water infiltration, impervious cover reduction, parking capacity, etc.)

### 3. Energy Efficiency Goals

#### a. Goals/Policy

Explain the specific project goals and requirements regarding energy efficiency. Incorporate the requirements of UFC 1-200-02 High Performance and Sustainable Building Requirements and/or other relevant agency policies.

#### b. Systems and Feature Energy Impacts

Identify and explain envelope, system, or site and building features that will be incorporated to maximize energy efficiency. Identify features that must be incorporated that will reduce or limit energy efficiency.

#### 4. Indoor Environmental Quality Requirements

##### a. Space Type 1

i. Intended Use: Explain how the space will be used (i.e. classroom occasionally used as conference room).

ii. Occupancy Schedule: Describe the occupancy including number of people at various times (i.e. drill weekend-maximum capacity, weekdays-20 percent; or 0700-0900 - none, 0900-1400 - 30 people, 1400-1600 - none).

iii. Environmental Requirements: Describe the environmental requirements of the space. Include description of temperatures, humidity levels, ventilation rates, air quality, lighting levels, or any other specific parameters desired (i.e. 75 deg F, 50 percent rh, 30 fc, etc.).

iv. Occupant System Control Ability: Describe the desired level of control the occupants will have over the thermal comfort and lighting systems. (i.e. adjustable thermostat for every person, adjustable thermostat in all private offices, no adjustable thermostats, adjustable thermostat in senior rank also controlling other offices, occupancy sensors for lighting, adjustable dimming, etc.)

v. Type of Lighting: Describe the type of lighting desired (i.e. task lighting with minimal overhead, accent lighting, particular fixtures, etc.).

vi. After-hour Use Accommodations: Describe whether and how often the space may be used after hours. Describe the systems that activate when an occupant uses the building after-hours. Describe the level of control of after-hour use HVAC.

(Example: Space is rarely used after-hours by few occupants. HVAC and lighting system should activate when occupants enter after-hours. The HVAC operation will be limited to that required to provide heating, A/C, and ventilation to the occupied space alone.) (Example: Space is rarely used after-hours by few occupants. Lighting and heating systems should activate. Ventilation and cooling should remain in normal after-hour operation.)

##### b. Space Type 2

## 5. Equipment and System Expectations

### a. HVAC Systems

i. Quality and Reliability: Explain the level of quality and reliability required of the HVAC systems.

(Example: Equipment efficiency should meet ASHRAE 90.1 and FEMP/Energy Star requirements. Due to critical nature of facility, additional redundancy in the cooling and heating systems is required, i.e. multiple chillers, boilers, and pumps.) (Example: No specific quality or reliability requirements specified. Equipment should remain serviceable over life of building or to the extent typical of the type of equipment.)

ii. Type: Explain the type of equipment desired.

(Example: Boilers should be condensing type. Use hydronic heating and cooling. Use self-contained A/C units in computer rooms.)

iii. Automation: Explain the level of automation in the HVAC System desired.

(Example: Single loop HVAC systems permissible. Use packaged controls only.) (Example: Control HVAC systems from DDC system connected to the base UMCS.) (Example: Boilers should have packaged controls connected to the DDC system.)

iv. Flexibility: Describe the desired level of flexibility of the HVAC system.

(Example: System should accommodate frequent office layout changes including private office wall movement.) (Example: Layout will remain mostly unchanged; no flexibility required.) (Example: Accommodate potential for conference and classrooms to change to offices.)

v. Maintenance Requirements: Describe the level of maintenance available or the requirements of the equipment regarding maintainability.

(Example: Equipment should be located to allow easy maintenance access. Equipment vendors or repair service should be able to respond within 24 hrs.)

### b. Lighting Systems

i. Quality and Reliability: Explain the level of quality and reliability required of the lighting system controls.

(Example: The building lighting system should meet ASHRAE 90.1 - IP requirements.)

ii. Type: Explain the type of lighting or control equipment desired.

(Example: High-efficiency fluorescent lamps with high-efficiency ballasts will be specified. Indirect lighting will be used in all office and classroom spaces. Lighting foot-candle levels may be reduced to 45 foot-candles in lieu of the typical 50 foot-candles when indirect lighting is used.)

iii. Automation: Explain the level of automation in the lighting control

system desired.

(Example: Provide occupancy sensors in restrooms, corridors, and storage areas.)

iv. Flexibility: Describe the desired level of flexibility of the lighting system and control systems.

(Example: Provide dual level switching in classrooms and conference rooms.)

v. Maintenance Requirements: Describe the level of maintenance available or the requirements of the equipment regarding maintainability.

(Example: )

#### c. Domestic Hot Water Systems

i. Quality and Reliability: Explain the level of quality and reliability required of the domestic hot water systems.

(Example: Equipment is existing. No specific quality or reliability requirements specified. Equipment should remain serviceable over life of building or to the extent typical of the type of equipment.)

ii. Type: Explain the type of equipment desired.

Supply water pressure is controlled by a water pressure booster pump.

Gas-fired storage tank water heater with mixing valve for temperature control. Equipment is existing

Sensor controlled lavatory faucets, water closet flush valves, and urinal flush valves.

Thermostatically controlled mixing valves for lavatory faucets.

iii. Automation: Explain the level of automation in the domestic hot water control system desired.

(Occupancy schedule control for recirculation loop and gas burner. Connect package controls to DDC system.

Supply water pressure is controlled by a water pressure booster pump.

Supply water temperature controlled by existing thermostatic mixing valve; verify setpoint.

Return water temperature controls monitored by return water temperature sensor that starts and stops the recirculation pump. Verify operation.

Verify sensitivity of all sensor-controlled fixture valves and flush valves. Fixture must operate with reasonable proximity of user.

Verify temperature of water discharge from thermostatically controlled sensor fixtures.

iv. Flexibility: Describe the desired level of flexibility of the domestic hot water systems.

Delivery water temperature to the thermostatic mixing valve are adjusted locally; verify supply water temperature from each fixture faucet delivering domestic hot water.

Adjust start stop of hot water recirculation pump to start at 12 degrees F below water heater central mixing valve setpoint and to stop at 8 degrees F below water heater central mixing valve setpoint.

v. Maintenance Requirements: Describe the level of maintenance available or the requirements of the equipment regarding maintainability.

(Example: Equipment should be located to allow easy maintenance access. Equipment vendors or repair service should be able to respond within 24 hrs.)

#### d. Onsite Power Systems

i. Quality and Reliability: Explain the level of quality and reliability required of the onsite power system.

ii. Type: Explain the type of onsite power system desired.

iii. Automation: Explain the level of automation in the onsite power system desired.

iv. Flexibility: Describe the desired level of flexibility of the onsite power system.

v. Maintenance Requirements: Describe the level of maintenance available or the requirements of the onsite power system regarding maintainability.

#### e. Other Systems

i. Quality and Reliability: Explain the level of quality and reliability required of the system.

ii. Type: Explain the type of system desired.

iii. Automation: Explain the level of automation in the system desired.

iv. Flexibility: Describe the desired level of flexibility of the system.

v. Maintenance Requirements: Describe the level of maintenance available or the requirements of the system regarding maintainability.

## 6. Building Occupant and O&M Personnel Requirements

### a. Facility Operation

Describe how the facility will be operated. Who operates the facility? Who maintains the facility? Who pays the utility bills?

### b. UMCS (EMCS or FMCS)

Will the building be tied to an UMCS/EMCS/FMCS? What system will be connected to? Provide information regarding connection requirements, protocols, and control, scheduling and monitoring points.

### c. Occupant Training and Orientation

How much training and orientation is desired for building occupants? Will training need to be provided for all systems? To what extent do the occupants need to understand and use the systems?

### d. O&M Staff Training and Orientation

How much training and orientation is desired for building occupants? Will training need to be provided for all systems? To what extent do the occupants need to understand and use the systems?

-- End of Section --

