

**DESIGN-BUILD**

**STATEMENT OF WORK:**

**Repair HVAC, BLDG 1510**

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**Base Project Number: YTPM 17-0012**

**7 December 2022**

## **1.0 INTRODUCTION**

In accordance with DESIGN-BUILD (D-B) basic statement of work, the Government is issuing this Statement of Work (SOW) to transition from concept definition to design-build services. The Contractor shall be capable of addressing and interpreting all aspects of most current Unified Facility Guide Specifications (UFGS) regarding this SOW.

## **2.0 PURPOSE**

**2.1** Under this contract, the D-B process will be used to design and construct project YTPM 17-0012, Repair HVAC BLDG 1510 at Westover Air Reserve Base. The Contractor is the Architect-Engineer (A-E) of record for the project and is responsible for the incidental design and construction work described in this Statement of Work. The Contractor may acquire single or multiple Notice(s) to Proceed (NTP) based upon acceptance and accreditation of the level of design documents associated with the appropriate area of work. The completion of the construction documents will require the approval of a minimum of three design submittals as described in Section 3.9, Design-Build Requirements.

### **2.2 Project Information**

**2.2.1** Project Number: YTPM 17-0012, Repair HVAC, BLDG 1510

**2.2.2** Project Location: Westover Air Reserve Base, MA 01022.

**2.2.3** Work to be performed: 1) the project is a design-build contract. The Contractor shall provide Types A and B Architect-Engineer Services to prepare and complete construction documents consisting of design analysis, contract drawings and technical specifications. 2) The Contractor shall provide all labor, materials, and equipment to install, construct, and complete the work planned in accordance with this Statement of Work (SOW).

**2.2.4** Design and Construction Deliverables. As specified in Section 8.0, Meetings & Deliverables Schedules. The period of performance for all work shall be as established in Section 12.0, Performance.

## **3.0 SCOPE**

**3.1** The work of this Project YTPM 17-0012, consists of furnishing all labor, equipment, materials, and all miscellaneous services required to accomplish the following work in the facilities on the Base:

- Install a new ductless mini split air conditioning systems for three (3) file server rooms.
- Locate wall mounted indoor units in the three (3) file server rooms along interior partition walls. Five (5) three-ton units in the main server room and two (2) three-ton units in each of the other two (2) server rooms.

- Protect computer servers from dust and physical damage. Use vacuum cleaner to capture dust from any drilling or cutting operation in the rooms with file servers
- Install security grilles in existing ductwork at two (2) wall penetrations, approximate size of this ductwork is 30"x 22".
- Install/alter DDC controls to connect mini split controls with the Base EMCS using Mitsubishi Electric DC-8000 Diamond controller or approved equal.
- Commission file server room HVAC system through Base EMCS.
- Mount condensers two units high and spaced as required by manufacturer to minimize the overall footprint.
- Bracket mount condensers to exterior concrete wall using stainless steel brackets, bottom of lower condenser is three feet above grade. Locate condensing units on the Northeast corner of the building facing Patriot Ave.
- Mini splits shall be designed to allow cooling down to -40 degrees F. Install wind baffles on condensing units outside for low ambient cooling.
- Penetrate outside wall and run all line sets through the room north of the large file server room to avoid disruptions in the file server rooms.
- Core drill exterior concrete wall for refrigerant line sets and electrical line between indoor and outdoor.
- Install new refrigerant lines between each mini split indoor and outdoor unit.
- Each unit shall have its own condensate pump designed to work with the indoor unit. Mount just below or internal to the indoor unit. Provide condensate pump designed to work with the manufacturer of the mini split system.
- Refrigerant piping and condensate drains to be run in adjacent rooms and corridor and kept outside active server rooms.
- Install a 150 CFM energy recovery ventilator, duct approximately 50 CFM per server room to all three rooms, locate unit above the drop ceiling in a room without file servers.
- Provide for all electrical service, disconnects and panel connections to the ductless mini split air conditioning system and energy recovery ventilator.
- Power to servers and climate control for the file server rooms are required to be operational during entire renovation. AHU-2 shall remain in operation and providing cooling to the file server rooms until the new mini split system is installed and operational.
- Disconnect the 30"x 22" branch duct that supplies the file server rooms and blank off duct at wall penetration as well as patch the 32" diameter main. Disconnect the 20"x 22" return branch duct from the file server rooms and blank off duct at wall penetration as well as patch the 32" diameter main in the corridor.

- Rebalance existing AHU-2 for remaining CFM. Relocate existing server room thermostat to open administrative area outside file server room.
- Provide and mount on the outside wall a 30-amp, 250-volt, 2 pole disconnect switch NEMA 3R for nine (9) each mini split air conditioning systems. Disconnecting means shall be located within sight in accordance with NEC article 440.14
- Provide and mount on the outside wall two (2) GFCI 120-volt weatherproof service receptacles.
- Provide EMT conduit on exterior wall for each mini split system.
- Provide PVC schedule 40 conduit to be installed underground from the exterior wall of the electrical room to the junction box.
- Provide and install in panel P4 nine (9) two (2) pole 30-amp breakers for the units.
- Air Handling Unit (AHU-2)
  1. Disconnect and remove feeders from AHU-2 to MP panel, from the 200-amp circuit breaker, install new feeders to AHU-2 from panel P7
  2. Provide and install a new 200-amp three (3) pole circuit breaker in panel P7.
- Existing Panel P7 disconnect and remove all conductors from the following circuits 4, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 21, 23, 25, 26, 27, 28, 29, 30, 31, 33 and 35 back to the nearest junction box.
- Existing Panel P4 disconnect and remove all conductors for the following circuits 1, 3, 5 and 7 back to the nearest junction box.

**3.1.1 Site Survey.** The Contractor shall perform a site survey to confirm information pertaining to the project under this SOW and shall provide all plans and designs, labor, equipment, and materials necessary to support all work under this SOW. The Contractor shall serve as the Architect-Engineer of Record for the complete development of designs and specifications in accordance with defined levels of effort necessary to construct the project and to provide as-built drawings (both electronically in AutoCAD 2015 and in hard copy) for retention by the Government. Submittal requirements are further outlined in Section 3.9, Design-Build Requirements.

**3.1.2 Base Regulations.** The Contractor shall conform to all Base regulations and directives pertaining to security, safety, fire, traffic, and personnel clearance, insofar as they pertain to the Contractor's activities at Westover Air Reserve Base, MA. The Contractor shall ensure conformance by all of its own employees, sub consultants, and subcontractors. Refer to Attachment No. 1 – General Requirements for additional information.

## 3.2 Project Requirements

**3.2.1** This Statement of Work (SOW) defines the requirements for the completion of design and construction work to repair failing HVAC system in Building 1510.

For additional requirements, refer to Section 3.6, Description of Work.

**3.2.1.1 Other Applicable Codes.** The Contractor shall identify and comply with any other applicable codes such as the National Fire Protection (NFPA), the National Electrical Code (NEC), and the International Building Code (IBC), including all changes and amendments in effect of the date of issuance of this SOW. When questions arise between applicable codes from different regulatory agencies, the most stringent shall prevail.

**3.2.2** The Contractor shall consider energy conservation, pollution prevention, and waste reduction to the maximum extent practicable. The Contractor shall incorporate recycled materials required by the U.S. Environmental Protection Agency. The Contractor shall follow the Air Force Affirmative Action Procurement Program guidelines for Design and Construction Services. Products specified as part of this project and delivered under this contract shall comply with these guidelines. The Contractor shall complete and submit the Construction Waste Management Plan and Waste Management Summary Form for the construction activities of this project. These forms are provided at the end of Attachment No. 1 – General Requirements.

**3.2.3** The Contractor shall perform site preparation, erect safety barricades, construction, restoration, repair, enhancement, maintenance, demolition, site clean-up, and demobilization of facilities and sites as required accomplishing this SOW. Fall protection systems shall be installed and utilized in accordance with the US Army Corps of Engineers Safety & Health Requirements Manual (EM385-1-1) and OSHA standards as applicable.

**3.2.4 Construction Schedule.** The contractor shall provide a detailed construction schedule. The construction schedule estimate shall show all work tasks, demolition dates, material and equipment delivery time frames, timelines and expected completion date.

## 3.3 Pre-proposal Investigative Requirements

**3.3.1** The Contractor shall perform all site visits, surveys, and investigations necessary to satisfy himself/herself of all project conditions and requirements, existing conditions of the facility and material quantities necessary to accomplish the general intent of this SOW. The Contractor's services shall include any field investigations or surveying required for the accurate preparation and inclusiveness of the cost proposal and ultimate completion of the construction plan. The Contractor shall also furnish all temporary materials and equipment such as scaffolds, staging, lifts, etc., to safely access and accomplish this investigation work.

**3.3.2** The Contractor shall investigate the accuracy of all drawings and other as-built records applicable to the project scope and update them as necessary. The Contractor shall be responsible for physically investigating all accessible areas, including spaces above existing suspended ceilings as required. Non-accessible areas can be opened by Base personnel with prior coordination if the Contractor determines that the inspection is necessary to properly define the construction plan. The Contractor shall provide the Contracting Officer fourteen (14) calendar day advance written notice

prior to any scheduled inspection of concealed spaces which require government assistance.

### **3.4 Technical Specifications**

**3.4.1** Specifications including all technical and special conditions shall be prepared by the Contractor utilizing the project specific specifications included as Attachment No. 1 which contain the minimum requirements for the execution of this project.

These Sections pertain to the renovation work to be performed. The Contractor shall develop additional sections as necessary to define all work requirements identified in the complete construction plan.

### **3.5 Existing Conditions**

**3.5.1** Project is in building 1510 which is occupied and shall remain operational during construction.

### **3.6 Description of Work**

The Contractor shall ensure that the following requirements will be accomplished in accordance with specifications enclosed as Attachment No. 1 as well as all the appropriate codes and regulations as stated in Section 3.2, Project Requirements.

### **3.7 General Provisions**

**3.7.1** The Contractor shall perform the complete design for the work prescribed in this Statement of Work in accordance with manufacturer's requirements and recommendations and in accordance with the general requirements included in Attachment No. 1.

**3.7.2** Copies of all Record drawings that are available for the existing building construction can be obtained by the Contractor at the Civil Engineering facility located in Building 2450 at Westover Air Reserve Base. AutoCAD files may not be available for all facilities. These drawings shall be used for reference only. Contractor shall conduct on-site investigation to determine their accuracy.

**3.7.3** The facilities will be fully occupied and all mechanical and electrical systems associated with the servers or air conditioning of the file servers shall remain operational during the work, any mechanical or electrical shut down of systems not associated with the file servers shall be kept to a minimum.

### **3.8 Hazardous Materials Awareness**

**3.8.1** There are no known asbestos or lead hazards associated with this work

### **3.9 Design-Build Requirements**

The Contractor shall manage and perform D-B construction work as defined in the SOW. To meet the contract requirements, the Contractor shall prepare and furnish complete technical calculations, survey results, sketches, contract drawings, technical specifications, planning

analyses, construction schedules, submittal schedules, and as-built drawings as required for the accomplishment of the project scope in accordance with the requirements of this SOW. Additionally, the Contractor shall provide complete details, material samples, product data from manufacturers or suppliers and the proposed work schedule for Air Force review and approval prior to commencement of any work. For the Design phase, Contractor shall submit design drawings and specifications for review and approval at the 35%, 95% and 100% Final Design development stages. For the construction phase, Contractor's submittal requirements are specified Section 3.9.2, Construction Phase.

### **3.9.1 DESIGN PHASE**

**3.9.1.1 Design Documents.** The text for delivered documents shall be prepared on standard letter size white bond paper (8.5" x 11"). Preliminary and final specifications shall be printed double sided (head to head). Attachments shall be fully identified, referenced in the text, and folded to conform to the size paper used in the report. All documents will be produced both electronically and hard copy and will become property of the U.S. Air Force upon completion of the design. The Contractor shall also deliver copies of any specifications, reports, etc. using Microsoft Office on compatible program media to the base Point of Contact (POC). The Contractor shall deliver copies of drawings using AutoCAD 2015 (with X-References bound). The Contractor will be required to deliver paper copies of the reports and documents and provide CD's to the HQ AFRC and Base POC's for each design Phase per schedules in Section 8.

**3.9.1.2 Drawings.** Drawings may consist of site plans, floor plans, installation details, controls schematics or any views that clearly show the extent of the work, the method(s) of installation, and the expected results.

**3.9.1.2.1** All contract drawings to be furnished shall be well prepared, complete, and accomplished in accordance with the best professional practice to show clearly and concisely the type and extent of work to be performed. The drawings will be prepared utilizing AutoCAD 2015 software and dimensioned completely and accurately. Each sheet or drawing will include a border and a graphic scale bar to indicate the appropriate scale for the work shown. Drawing dimensions shall be in English units. Standard fonts, material indications and symbols for mechanical and electrical equipment shall be used. Project title sheets shall have an index that lists the drawing number, drawing name, sheet number of total sheet number, i.e. Sheet X of Y, and CAD file name.

**3.9.1.2.2** Drawings shall be prepared on 11" x 17" paper.

**3.9.1.3 Technical Construction Specifications.** Administrative specifications are included as Attachment No. 1 shall be utilized for this project. Any additional specifications required by the final design shall be prepared utilizing the most current UFGS to meet Air Force requirements.

**3.9.1.3.1** It is essential that all specifications be completely edited and tailored to suit the work requirements of the individual items contained in this SOW. Extraneous material, which does not apply to the project, must be deleted. The Contractor must specify all items in full to assure quality construction and compliance. The electronic specification files shall be provided in Microsoft WORD and Adobe PDF.

**3.9.1.3.2** Each specification section page shall contain a header with the Base project number in the top-right corner and a footer centered on the bottom of the page with the specification section, the page number and the total number of pages of the section separated by a double space, i.e., "Section 00 00 00 Page X of Y". Include "-- End of Section --" centered in the page at the end of each section above the footer.

#### **3.9.1.4 Design Development Submittal (35 Percent):**

A 35% design submittal is required for this project. Accordingly, the Contractor shall complete and submit design development phase work (35 percent completion), including all prerequisite requirements for completion. The Contractor shall provide those services necessary to prepare drawings and other documents to establish the minimum requirements for the renovations requested per this Statement of Work and its Attachments. The 35% design submittal includes, but is not limited to, the following:

**3.9.1.4.1** Drawings. Drawings may consist of site plans, floor plans, schedules, controls schematics, installation details, or any views that clearly show the extent of the work, the method(s) of installation, and the expected results.

**3.9.1.4.2** The drawings shall also indicate all required demolition and modifications to accomplish the work required to bring this facility into current code/regulation compliance.

**3.9.1.4.3** Design Analysis. A design analysis showing design assumptions and calculations used in the preliminary design of the new HVAC system.

**3.9.1.4.4** Specifications. The Contractor shall provide a list of technical specification sections which are applicable and identify all major work along with a submittal register.

**3.9.1.4.5** Catalog Cuts. Submit catalog cuts and/or other manufacturer's data on all materials proposed to be incorporated into the work for approval and record purposes.

**3.9.1.4.6** Meeting Minutes. The Contractor shall submit meeting minutes of all design review meetings and meetings with government personnel prior to this submittal.

#### **3.9.1.5 Design Development Submittal (95 Percent):**

A 95% design submittal is required for this project. Accordingly, the Contractor shall complete and submit design development phase work (95 percent completion), including all prerequisite requirements for completion. The Contractor shall provide those services necessary to prepare drawings and other documents to establish the minimum requirements for the renovations requested per this Statement of Work and its Attachments. The 95% design submittal includes, but is not limited to, the following:

**3.9.1.5.1** Drawings. Drawings may consist of site plans, floor plans, controls schematics, schedules, HVAC demolition and new ductwork layouts, installation details, or any views that clearly show the extent of the work, the method(s) of installation, and the expected results.

**3.9.1.5.2** The drawings shall also indicate all required demolition and modifications to accomplish the renovations required to bring this facility into current code/regulation compliance.

**3.9.1.5.3 Design Analysis.** A design analysis showing design assumptions and calculations used in the preliminary design.

**3.9.1.5.4 Specifications.** The Contractor shall provide a list of technical specification sections which are applicable, including a submittal register, and identify all major work and environmental protection requirements.

**3.9.1.5.5 Catalog Cuts.** Submit catalog cuts and/or other manufacturer's data on all materials proposed to be incorporated into the work for approval and record purposes.

**3.9.1.5.6 Meeting Minutes.** The Contractor shall submit meeting minutes of all design review meetings and meetings with government personnel prior to this submittal.

### **3.9.1.6 Design Development Submittal (100% Final Design):**

Based on review comments furnished by the government during the 95% Design Submittal Review, the Contractor shall make necessary revisions and/or corrections and submit any and all revised documents to the 100% design deliverables with their corresponding electronic files.

## **3.9.2 Construction Phase**

**3.9.2.1** Upon the approval of the 100% Final Design plans and specifications, the Contractor may commence onsite construction activities. During the Construction Phase, construction and the delivery and warranting of the project/facility take place. The Contractor shall provide all labor, materials, and equipment to install, construct and complete the work designed in accordance with Sections 1-13 of this Statement of Work. The Contractor shall also comply with Attachment 1, General Requirements. The Contractor shall not begin any construction or perform any other physical work at the construction site until all material submittals and methods of installation are received and approved by the Contracting Officer and all approved materials have been delivered to the Base or are immediately available for delivery as the work progresses.

**3.9.2.2** The Contractor shall retain the services of a Commissioning Agent to perform any required commissioning of the systems installed. Rework or remove and replace any non-compliant work. Furnish all field data, reports, and test results within five (5) calendar days of performing same. Perform tests in the presence of the Contracting Officer and the Base Civil Engineer or their representatives to determine conformance with the specified requirements.

**3.9.2.3 On-Site Field Oversight.** The Contractor shall provide the manpower, equipment, material, services, and transportation necessary to ensure oversight services throughout accomplishment of this design-build SOW. The Government will provide on-going surveillance and submittal approval recommendations. The designated representative of the Government will report all findings to the Contracting Officer.

### **3.9.2.4 Pre-Final Inspection.**

The Contractor shall conduct a pre-final walk-through inspection and publish the pre-final inspection findings in a Pre-Final inspection report. CE and CO should be present at pre-final

inspection. The Contractor shall include all O&M manuals, operating instructions, and test reports for review. The Contractor shall provide training to base personnel by manufacturer's representatives, as required.

### **3.9.2.5 Final Inspection.**

The Contractor shall conduct a final inspection and publish the findings in a Final Inspection Report. The inspection shall concentrate on the items identified at the pre-final inspection and recorded in the pre-final report. The final inspection report shall also certify that all items of the design have been implemented and that the construction is complete. The final inspection report shall also include as-built drawings and specifications verifying that all development standards have been met. As built drawings must be accepted by the Contracting Officer and BCE representative before final payments is completed.

### **3.9.2.6 Delivery/Warranty.**

The Contractor shall complete all inspection and commissioning requirements prior to final inspection. Following final inspection, the Contractor shall deliver to the Government the as-built drawings in the format and media as required by the SOW. The warranty shall be issued in accordance with FAR 52.246-21. Extended warranties offered by the Contractor and its subcontractors or suppliers may be accepted by the Government at its discretion.

### **3.9.2.7 Closeout Documents**

Provide final construction As- built drawings stamped by a Professional Engineer or a MA registered Architect and will be due Thirty (30) calendar days after final inspection.

## **4.0 GENERAL REQUIREMENTS**

### **4.1 Work Scheduling, Restrictions, Planning Requirements**

**4.1.1** The work sites will be available for contract work from Monday through Friday from the hours of 7:00 AM (0700 hours) to 4:15 PM (1615 hours), except federal holidays. If the Contractor desires or needs to perform work to maintain schedule during hours or days other than that stated, a written request, which is to include the number of work hours, starting times, dates of the proposed work and a statement that this after hour work is to be performed at no additional cost to the government, shall be submitted to the Contracting Officer seven (7) calendar days in advance. The Contracting Officer will review each such request and respond with written approval, approval with qualifications or restrictions if and as necessary, or disapproval.

**4.1.2** The work at these facilities shall be commenced as soon as possible and be diligently prosecuted through its completion, inspection, and acceptance.

**4.1.3** The Contractor shall not begin any construction or perform any other physical work at the construction site until all material submittals and methods of installation are received and approved by the Contracting Officer and all approved materials have been delivered to the Base or are immediately available for delivery as the work progresses. The Contractor must coordinate all materials, equipment, and Subcontractors so as to minimize the duration of the work.

**4.1.4** A storage area(s) will be designated in the project's vicinity as mutually agreed with the Contracting Officer, Facility Manager and Chief of Construction. At the end of each work day, the Contractor shall remove all materials and equipment from the work site and store all materials and equipment within the assigned storage area(s).

**4.1.5** The Contractor is responsible for removal and disposal of all construction material, waste and any items not being reused. All items shall be disposed of off base and in a legal manner according to all applicable Federal, State and Local laws and regulations.

## **4.2 Worksite Activities and Coordination**

**4.2.1** Coordination of Activities. The Contractor shall coordinate worksite activities with Government Project Manager to ensure the protection of human health and the environment; the prevention of damage to property, utilities, materials, supplies, and equipment; and the avoidance of work interruptions. The Contractor shall provide physical security to work areas with security equipment and personnel. The Contractor must comply with Occupational Safety and Health Administration (OSHA) safety and health regulations and local safety office requirements. The Contractor is required to provide the CO copies of any OSHA report(s) submitted during the duration of this SOW.

**4.2.2** Hazardous Material and Hazardous Waste Activities. The Contractor shall handle all hazardous materials and waste in accordance with all applicable federal, state, and local requirements. All hazardous materials shall be manifested, and prior to any hazardous materials leaving Westover ARB, the manifest shall be signed by Base Environmental Engineering, (413)557-2434 (not the Contracting Officer). The Contractor shall, within five (5) calendar days of the commencement of work, provide the Base Environmental Engineer with the name, address and EPA Number of all Treatment, Storage and Disposal Facilities that will be used to process Hazardous Waste generated at Westover ARB. The Contractor shall schedule (minimum of five days) all manifests with the Contracting Officer and Base Environmental Engineer for proper coordination to ensure appropriate and efficient tracking of the Contractor's hazardous material purchases, inventories, use, and releases such as required by the Emergency Planning and Community Right-to-Know Act (EPCRA), EOs, or any installation reporting requirements.

**4.2.3** The Contractor shall also comply with federal, state, and local requirements for any task involving the transportation of hazardous wastes and/or contaminated materials to off-site treatment, storage and/or disposal facilities. This includes 40 CFR 260, 49 CFR 172, 173, 178, 179 and all other applicable local, state and federal transportation regulations.

**4.2.3.1** Refer to Attachment 1 General Requirements, for additional requirements.

**4.2.4** The Contractor shall provide all necessary personnel, facilities, equipment, and materials to complete the tasks identified in the SOW.

**4.2.5** Weekly Progress Meetings will be conducted, and Meeting Minutes will be provided by the Contractor. Refer to Section 8, Meetings/Deliverables Requirements.

**4.2.6** The Contractor will abide by local Westover ARB regulations and policy in regard to base access, security, and other issues as directed by the Contracting Officer's Representative (COR). Refer to Attachment 1, General Requirements. The Contractor should notify the COR

and the base POC immediately of any and all issues which may result in a delay of the project and/or impact quality of the work.

## **5.0 PERMITS**

**5.1** The Contractor shall develop, coordinate, and assist the installation in applying for and obtaining all federal, state, local, and other applicable permits as required, access (including off-base easements and leases, if any), agreements, licenses, and certificates required to perform and complete this SOW. The Contractor shall maintain a library of these documents at the Contractor's site office on base as well as the corporate facility handling this SOW. The Contractor shall comply with all applicable permit conditions.

**5.2** In accordance with the requirements of the Massachusetts Department of Environmental Protection (MADEP), the Contractor shall prepare and submit form BWP AQ 06, Notification Prior to Construction or Demolition, to the Department on behalf of the government. The Contractor is also responsible for the remittance of the notification fee of \$85.00 as of this writing, or prevailing applicable at the time per MADEP. Complete information is available from the Department or on the DEP Web site at [mass.gov/dep](http://mass.gov/dep).

## **6.0 OTHER APPLICABLE DOCUMENTS**

The Contractor shall identify and comply with all applicable federal, state, and local statutes; Air Force/Military Instructions, manuals, handbooks, regulations, guidance, and policy letters; Executive Orders (EO); National Fire Protection Agency (NFPA); Air Force Engineering Technical Letters (ETL), Manuals (AFMAN) and Pamphlets (AFPAM); the Unified Facilities Criteria (UFC) and Unified Facilities Guide Specifications (UFGS); American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE), including all changes and amendments in effect on the date of issuance of this SOW. In addition, the Contractor shall refer to the current version of the USAF Project Manager's Guide for Design and Construction, and Guidance for Contract Deliverables (GCD), current version.

## **7.0 ADMINISTRATIVE**

### **7.1 Meetings, Conferences, Site Visits – Design Phase**

**7.1.1** Post Award Meeting/Teleconference, Progress Meetings & Design Integration Meetings. After the issuance of the Award the Contractor shall proceed with the Design Phase in accordance with the government approved schedule submitted by the Contractor. The Contractor shall schedule Design Review Meetings within five (5) calendar days of receipt of government review comments. In the event that the Contractor is from outside the Westover area, teleconferences will be acceptable, except for the Site Visit/Kick off Meeting. The Contractor shall coordinate each design review meeting with all individuals listed in Section 11.2. The Contractor shall record and provide copies of all meeting minutes not later than five (5) calendar days after the meeting. Minutes shall be electronically sent to each individual in Section 11.2.

**7.1.2** Site Visit/Kickoff Meeting. The Contractor shall coordinate the site visit to be held at Westover ARB with all parties identified in section 11.2 within ten (10) calendar days from the award date. The Contractor shall take this opportunity to collect or request all information necessary (i.e. drawings, etc.) to accomplish the 35% design.

**7.1.3** 35% Design Submittal. The 35 % Design Submittal will be due twenty (20) calendar days after the Site Visit/Kickoff Meeting. Government review comments to the 35% design will be due five (5) calendar days after receipt of the submittal. The Contractor shall coordinate the 35% Design Review Meeting with Westover ARB on site or via teleconference with all POC's listed in Section 11.2, not later than five (5) calendar days after receipt of Government comments.

**7.1.4** 95% Design Submittal. The 95 % Design Submittal will be due twenty (20) calendar days after the 35% Design Meeting. Government review comments to the 95% design will be due five (5) calendar days after receipt of the submittal. The Contractor shall coordinate the 95% Design Review Meeting with Westover ARB on site or via teleconference with all POC's listed in Section 11.2, not later than five (5) calendar days after receipt of Government comments.

**7.1.5** 100% Final Design. The 100% Final Design will be due ten (10) calendar days after the 95% Design Review Meeting/Teleconference. Design should be complete.

## **7.2 Meetings, Conferences, Site Visits – Construction Phase**

**7.2.1** Pre-construction Conference. The Contractor shall coordinate the 100% Final Design Review/Pre-construction conference with all POC's listed in section 11.2 prior to the start of construction. Representatives of major Subcontractors are encouraged to attend. The meeting will be held at Westover ARB. The purpose of this meeting is to brief the Contractor on Base policies and procedures for conducting construction activities and operations associated with the project work. The construction start date will be established and specific scheduling or phasing issues will be discussed.

**7.2.2** The Contractor shall attend meetings at the project site during the Construction phase. The purpose of these meetings includes, but is not limited to contract discussions, progress reviews, project status, and the general exchange of information concerning current and future activities.

**7.2.3** Meeting Minutes. The Contractor shall prepare and publish all meeting minutes following CO/CE approval, track all action items assigned, and document all items discussed at a meeting as well as a list of attendees.

**7.2.4** Base Access. The Contractor shall coordinate with the Contracting Officer to gain access to areas of the installation involving this project. The Contractor shall follow all base rules and regulations regarding entry and access to base. The contractor shall have in possession all applicable identification documents prior to arrival.

## **7.3 Work Site Requirements**

**7.3.1** Safety Requirements. The Contractor shall conduct its operations in accordance with FAR Part 52.236-13 and Alternate 1.

**7.3.2** Storage. The Contractor shall conduct its operations in accordance with FAR Part 52.236-10.

**7.3.3 Security.** The Contractor shall obtain and monitor security badges used by its own staff and subcontractors during the duration of this contract.

**8.0 MEETINGS/DELIVERABLES SCHEDULES**

**8.1 General**

**8.1.1 Technical Services.** The Contractor is the “Architect of Record” and, as such, will sign and seal all completed design documents and any designs for modifications. The Contractor is accountable for all aspects of the completed design under Federal, Department of Defense, Air Force, State and applicable local laws.

**8.1.2 Quality Control (QC) Oversight.** The Designer of Record shall plan and/or develop QC procedures for the Constructing contractor to follow, and such plan shall be submitted to Government COR for approval. Government Construction Inspectors will inspect IAW the procedures set forth in this plan, which is to be submitted by no later than the 95% design review phase for review IAW the 95% design review phase review timing. Any alterations to this plan (from the 95% design review) will be completed and submitted for approval at the 100% design review meeting.

**8.2 Deliverables**

**8.2.1 Design Deliverables.** The Contractor shall provide submittals at 35%, 95% and 100% Final Design. The Contractor shall submit two paper copies of the documents (including meeting minutes), one set of PDF files, and one set of AutoCAD 2015, latest version (with x-references bound such that each file is a stand-alone file), copied onto a CD for each design development phase. Use the latest version of Microsoft WORD or compatible software for all narrative and text files. The period of performance for all design work shall be established in Section 12, Performance. Design deliverables will be provided in accordance with the following Table. In addition to the table provide one (1) wet sealed set of drawings, by a Professional Engineer or a MA Registered Architect, of the 100% Final Design with all design review comments incorporated to 439 CONF/PKB.

POC/OFFICE SYMBOL	DESIGN DELIVERABLES/SUBMITTALS			
Submittal	35%	95%	Final Design	# of copies Paper/CD
439 CONF/PKB	X	X	X	1/1
HQ AFRC/A4CM	X	X	X	1/1

**8.2.1.1** Government Review. The Contractor shall allow five (5) calendar days for government review of all deliverables.

**8.2.1.2** For detailed design phase requirements, refer to Section 3.9, Design-Build requirements.

**8.2.1.3** Design Review/Pre-construction Conference. After the 100% Final Design Submittal is approved and accepted by the government, the Contractor will coordinate with all POC's listed in section 11.2 to schedule a Design Review/Pre-construction conference at the Base. Construction will begin after only acceptance and approval of the 100% Final Design.

**8.2.2** Construction Deliverables. The Contractor shall provide technical plans, designs and reports as detailed below and submit two copies each or electronically as permitted to the Contracting Officer (CO) for review and approval. Hard copies for all submittals as noted are required. *Day* means, unless otherwise specified, a calendar day.

<b>Deliverable</b>	<b>Frequency</b>
Production or Delivery Problem Report	Same day as problem
Health and Safety Plan	5 days after Construction NTP
Construction Quality Control Plan	5 days after Construction NTP
As-built Drawings (hard copy)	30 days after final inspection
Material Approval (AF Form 3000)	30 days after Notice to Proceed
Incidental Design Documents (AF Form 3000)	As needed
Draft O & M Manuals (AF Form 3000) (hard copy)	At Pre-final inspection

O & M Manuals (AF Form 3000) (hard copy)	At Final inspection
Contract Progress Schedule	Within 10 days of award or at pre-construction conference; updated monthly after construction start
Contract Progress Report	Biweekly
Meeting Minutes	As needed, 5 days after meeting
Pre-final Inspection Report	5 days before Final Inspection
Commissioning Report	5 days before Final Inspection
Final Inspection Report	5 days after Final Inspection

**8.2.2.1** Construction Schedule. The contractor shall provide a construction schedule to Contracting Officer at or before the 100% design review.

**8.2.2.2** For additional Construction Phase requirements, refer to Section 3.9.

**8.2.2.3** Progress Review Meetings. The initial Progress Review Meeting will be held within thirty (30) calendar days after acceptance and approval of the 100% Final Design.

Subsequent meetings will be held at seven (7) calendar day intervals for the duration of the project.

**8.2.2.4 Contract Progress Schedule.** Within ten (10) calendar days after award or at the pre-construction conference, whichever is later, the Contractor shall submit a Contract Progress Schedule, depicting an overall contract progress schedule for the main elements of work for the period of performance. The Contractor shall also provide a line graph depicting scheduled construction progress throughout the period of performance. The progress schedule shall be signed by the CE representative recommending approval and approved by the Contracting Officer (CO). Once submitted, the approved contract progress schedule may only be changed by the CO. Once construction begins, the progress schedule shall be updated at least monthly to depict the comparison of actual versus scheduled progress.

**8.2.2.5 Contract Progress Report.** At least biweekly, the Contractor shall submit a Contract Progress Report, signed by the Contractor's on-site representative. The work elements and percentages stated on the form will be the same work elements as listed on the Contract Progress Schedule.

**8.2.2.6 Project Planning Chart and/or Construction Planning Chart.** The Contractor shall prepare and submit a Project Planning Chart (PPC) for approval. The PPC shall detail the project schedule and status using Gantt charts, which shall indicate appropriately the percentage of work scheduled for completion by any given date during the period of this SOW. The PPC shall show both serial and parallel sub-tasks leading to deliverable products/reports, including early and late start and completion date with float.

**8.2.2.7** The Contractor shall show the order in which the Contractor proposes to perform the work, and the dates on which the Contractor contemplates starting and completing the salient elements of the work and critical sub-tasks of each element. The PPC shall be in the form of a progressive bar chart indicating a logical sequence of work in each work phase and work area and shall indicate the percentage of work scheduled for completion by any given weekend date during the contracting period. The Contractor shall revise the PPC as necessary to gain initial acceptance by the COR. In addition, the Contractor shall update the PPC by revising the original schedule by entering the actual start and completion dates of each work element and associated sub-tasks on the chart.

**8.2.2.8 Project Closing Conference.** The Contractor will provide as-built drawings for work completed, product specifications, manufacturer's manuals and warranty documentation at the closing conference, to be held at Westover ARB. This conference will be scheduled by the Contractor after punch list items are satisfactorily completed or an action plan for completion has been approved by the Base. Project Closing Conference may be combined with Final Inspection as determined by the Contracting Officer

**8.2.2.9 As-Built Drawings.** The Contractor shall provide to the Contracting Officer, upon completion of the project, a complete set of project documents consisting of Record Drawings and Operation and Maintenance Manuals. Record Drawings shall include the original marked-up sets of all drawings, whether changed or not. The information provided shall include but not limited to the following:

- a. Dimensional changes.

- b. New and revised details.
- c. Actual roof equipment locations.
- d. Sizes and routings of pipes / vents.
- e. Particulars on concealed products which will not be easily identified after construction completion.
- f. Changes made by modifications to the Contract.

**8.2.2.10** The Contractor shall submit one full size (D sheets) hard copy of the final, corrected, and approved record drawings on mylar, along with electronic copies on two CD ROMs. The electronic copies of the drawings shall have one set in AutoCAD 2015, latest version, with all X-References bound and one set with engineer's stamp in PDF format.

## **9.0 GOVERNMENT FURNISHED MATERIALS AND SUPPORT**

There are no materials, equipment or supplies to be furnished by the government to be physically incorporated into the construction work of this SOW.

### **9.1 Drawings, Reports and Plans:**

- A. Facility Record Drawings (Available for review in BCE Office)
- B. Previous Project Drawings (Available for review in BCE Office)

The Contractor shall field verify all dimensions and conditions shown on any government furnished drawing to ensure that all data and information presented, enumerated or noted within the drawings and/or specifications developed for this project are completely accurate in every regard.

**9.2** In conjunction with the project, Westover ARB will provide the following support to the Contractor as detailed below.

- A. Provide assistance to the Contractor in obtaining existing engineering plans, drawings, etc., to facilitate work required in the Statement of Work.
- B. Arrange for a staging area(s) for storing equipment and supplies. The security of equipment and supplies shall be the Contractor's responsibility.
- C. Arrange for personnel identification badges, vehicle passes and/or entry permits with (14) calendar days or more of advance written notification. Request must be on a 439AW SF 1 Badge Form.
- D. Arrange for access to the work areas.
- E. All reasonably required amounts of water and electricity essential to contract performance will be made available at no cost to the Contractor from existing systems, outlets and supplies. Any temporary connections shall be in strict accordance with applicable OSHA standards and in compliance with all Health and Safety Codes and Regulations. The Contractor shall carefully conserve any utilities furnished without charge. Abuse of this service will result in denial of free use and will be subject to charges at market rates.

- F. Assist in arranging outages. Interruption of service for HVAC, Power, Lighting, Telephone, Fire Protection, Fire Detection, Water, Sewer, Gas, Roads, and Parking Lots are considered outages. Outages shall be scheduled at least two weeks prior to the desired time; refer to Attachment 1, General Requirements, for specific requirements.

## 10.0 WORK LOCATION

10.1 The Contractor shall ensure all installation work be done on-site, with the option of design and pre-installation work being done off-site for convenience to Contractor, as required to produce the deliverable items listed in this Statement of Work. Site assessment/research, project discussion meetings and presentations will be held at Westover ARB.

## 11.0 CONTRACT ADMINISTRATION

11.1 Notwithstanding any of the provisions of this contract, the Contracting Officer will be the only individual authorized to, in any way, amend or modify the terms of this SOW.

11.2 SOW POC's are:

**Contracting Officer (CO):**

Amy Dumais  
439 CONF/PKB  
250 Airlift Drive, Westover ARB  
Chicopee, MA 01022 -1507  
Voice: Comm (413)557-3110 DSN 589-3110  
Email: [amy.dumais@us.af.mil](mailto:amy.dumais@us.af.mil)

**Project Manager (PM):**

Daniel Boisclair  
439 MSG/CECD  
250 Patriot Ave, Westover ARB  
Chicopee, MA 01022  
Voice: Comm (413) 557-3332 DSN 589-3332  
Email: [daniel.boisclair@us.af.mil](mailto:daniel.boisclair@us.af.mil)

**Command Project Manager (PM):**

Mr. Michael Coats  
AFRC/A4CM  
155 Richard Ray Blvd  
Bldg 210  
Robins AFB, GA 31098  
Voice: Comm (478) 327-1068 DSN 497-1068  
Email: [michael.coats.5@us.af.mil](mailto:michael.coats.5@us.af.mil)

## **12.0 PERFORMANCE**

**12.1 Performance Period.** The performance period for this statement of work is two hundred (200) calendar days for this SOW. The performance period for design phase is eighty (80) calendar days and the construction phase is one hundred twenty (120) calendar days, which includes delivery of all materials. The Contractor shall begin work as described in the scope of work within ten (10) calendar days of Contract Award. All meetings and progress reports are due in a timely fashion and will begin no later than thirty (30) calendar days after receipt of NTP. No construction work shall begin prior to government approval of plans and specifications.

**12.2 Construction Progress Review Meetings.** The Contractor shall hold construction progress review meetings at seven (7) calendar day intervals and shall coordinate these meetings with the Base POC. These meetings will be a review of work performed, issues, schedules, milestones, and current status. The schedule of the progress review meeting may be modified by the Base POC with notification to the Contractor. These meetings will continue until the project is closed out.

**12.2.1 Construction Meeting Minutes.** All meeting minutes will be taken by the Contractor and distributed to POCs no later than five (5) calendar days following meeting dates.

**12.2.2 Schedules.** The Contractor shall adhere to all meeting and reporting schedules and acknowledges the authority of the Base POC to reschedule all meetings and reports.

## **13.0 WARRANTY**

**13.1** The Contractor shall complete all inspection and commissioning requirements prior to final inspection. The warranty shall be issued in accordance with FAR 52.246.21 and the Contractor shall demonstrate capacity to provide local warranty support, within 8 hours for non-emergency issues or within 4 hours for an emergency issue. Extended warranties offered by the Contractor and its Subcontractors or suppliers may be accepted at the Government's discretion.

### **ATTACHMENTS:**

1. Attachment No. 1, General Requirements

-- End of Statement of Work --

Attachment 1:  
GENERAL REQUIREMENTS  
FOR  
PROJECT YTPM 17-0012



AIR FORCE RESERVE  
439 CIVIL ENGINEERING  
WESTOVER AIR RESERVE BASE  
CHICOPEE, MASSACHUSETTS 01022

7 December 2022

## GENERAL CONDITIONS

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## **1. TEMPORARY PROTECTION**

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- A. The Contractor shall protect all workmen, civilian and military personnel, and the general public from injury. The Contractor shall coordinate and schedule all work with the Contracting Officer.
- B. The Contractor shall conduct all work to cause the least interference possible with the normal activities of the operations of the airfield and surrounding areas.

## **2. SECURITY**

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- A. All project work and conduct of construction activity must comply with all Base security regulations and policies.
- B. Prior to any workers arriving at the site, the Contractor shall arrange for personnel identification badges, vehicle passes and/or entry permits with two (2) weeks or more of advance written notification. Request must be on a 439AW SF 1 Badge Form. Badges shall be worn and be visible at all times while on the Base.
- C. The Contractor shall be responsible for the return of all Identification Badges to the Contracting Officer after completion of the project. Final payment will not be made until all badges are returned.
- D. The Contractor shall enter the project site only at a location approved by the Contracting Officer. Restrict all activities and movement of workers, supplies, and equipment to the designated project area and haul routes.
- E. The Contractor shall not allow cameras on the project site nor photographs to be taken without written permission of the Contracting Officer.

## **3. UNDERGROUND UTILITIES, UTILITY INTERRUPTIONS AND SHUTDOWNS**

---

- A. The Contractor shall submit a notification prior to excavation or any ground disturbing activity. The notification shall be Form 103, BCE Work Request (Dig Permit) and shall be submitted to the Contracting Officer at least (30) calendar days prior to the planned excavation. The Contractor shall obtain approval prior to excavation. The government will mark out known existing underground utilities in the work area. The marked location of the existing utilities is approximate. Excavation by power driven equipment is not permitted within three (3) feet of either side of the marked utility. Hand excavate on each side of the indicated obstruction and continue until uncovered or clearance for the new grade is assured.
- B. Report damage to underground utilities or subsurface construction immediately to the

Contracting Officer. Damage to marked utilities will be satisfactorily repaired or replaced by the Contractor at no additional cost to the government. Damage to unmarked utilities will be repaired or replaced at the government's expense. Should the government engage the Contractor to perform the repairs or replacement; an equitable adjustment in the contract amount will be negotiated prior to the repair or replacement being made. Repair is defined as permanent, code compliant measures as approved by the Contracting Officer.

C. Interruptions shall be defined as any Contractor operation that interferes with access through, or use of facilities or areas including utilities, Energy Monitoring and Control Systems (EMCS), parking lots, generators, roads, or airfields.

D. Request for an interruption shall be submitted in writing at least fifteen (15) calendar days in advance of the date desired and includes at least one alternate date. Include the following information: Location(s) of interruption(s), hours and dates of interruption(s), which services are affected, and which facilities are affected. Contractor is cautioned that outages may not be granted on the date(s) requested. Contractor shall notify the Contracting Officer at least seven (7) calendar days in advance of any cancellation of any scheduled interruption. Services shall not be interrupted until receipt of approval of proposed hours and dates are received from the Contracting Officer.

#### **4. QUALITY ASSURANCE**

---

A. All items of work not addressed in these General Conditions shall be completed in strict accordance with the manufacturers' specifications.

B. The quality assurance procedures of this section are a minimum. Provide additional quality control as required by the Contracting Officer. Any additional quality control, which may be required, shall not constitute a change in the contract.

C. The government is not obligated to inspect the Contractor's work, or to protect the Contractor from the consequences of his work. Government inspection is a general examination of the Contractor's conduct and workmanship and is solely for the purpose of the government. Government inspectors do not have the authority to accept work, nor is government inspection to be construed as conclusive.

D. Government agents including inspectors, engineers and quality assurance evaluators are not authorized to change the contract without the written approval of the Contracting Officer; this lack of authority extends to all situations in which the action of these agents could be construed as constituting a change.

E. The quality of workmanship is subject to audit by government or government-designated inspectors at any time during the contract. The Contractor shall cooperate fully and provide all information necessary for this audit.

F. The Contractor shall institute immediate action to correct all variances from the contract or General Conditions and employ all procedures necessary to ensure future work shall conform to the requirements of the contract.

G. The Contractor shall submit all requests for changes in writing to the Contracting Officer. Do not proceed with changes without possession of written authorization of the Contracting Officer.

## **5. CONCEALED WORK**

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The Contracting Officer must approve all items of work including those which are to be concealed. The Contractor shall notify the Contracting Officer of his intention to conceal work 24 hours in advance of concealment.

## **6. SUBMITTALS**

---

A. Approval must be obtained from the Contracting Officer for the material and equipment proposed to be incorporated into the work. Submittals shall be made no later than (30) calendar days after receipt of the Notice to Proceed or as specified by the Contracting Officer. The Contractor is to complete Air Force Form 3000, provided by the Contracting Officer, and submit electronically. The Contracting Officer will return the submittals approved or disapproved within (10) calendar days after receipt, by AF Form 3000. If submittals cannot be made within (30) calendar days after Notice to Proceed or as specified by the Contracting Officer, the Contracting Officer shall be advised of the difficulty and the Contractor shall request an extension of time for this task. Approval of submittals does not relieve the Contractor from performance in strict accordance with the contract or Statement of Work, nor does such approval constitute “acceptance” under other conditions of this contract. Submit electronically, other than physical material samples as required.

B. All “or equal” items or materials proposed by the Contractor to be used in the project shall be submitted for approval.

C. Items required to be submitted for approval are listed in the Statement of Work and are a minimum.

## **7. SUPERINTENDENCE BY THE CONTRACTOR**

---

A. At all times during the performance of the contract and until the work is completed and accepted, the Contractor shall directly superintend the work or assign and have on the worksite a competent Superintendent who is satisfactory to the Contracting Officer and has the authority to act for the Contractor.

B. The Superintendent is to oversee and coordinate all project related work and is required to be on site at any and all times physical work is being performed. The Superintendent shall be able to read, write, speak and understand the English language.

C. Failure to comply with this requirement may be deemed as cause for a non-compensatory stoppage and suspension of work until the deficiency is remedied.

## **8. NOTIFICATION PRIOR TO CONSTRUCTION OR DEMOLITION**

---

A. In accordance with the requirements of the Massachusetts Department of Environmental Protection (MADEP), the Contractor shall prepare and submit form BWP AQ 06, Notification Prior to Construction or Demolition, to the Department on behalf of the government. The Contractor is also responsible for the remittance of the \$85.00 notification fee. Complete information is available from the Department or on the DEP Web site at mass.gov/dep.

## **9. STORAGE AND HANDLING**

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All new materials shall be transported, stored, and handled according to the manufacturers' written recommendations or as otherwise directed by the Contracting Officer.

## **10. SCHEDULING**

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A. All work shall be carefully scheduled to prevent any excessive shutdown time of utilities or services. The Contractor shall make written request to the Contracting Officer for approval of all work requiring shutdown 48 hours prior to commencement of such work.

## **11. DAMAGED PROPERTY**

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Work shall proceed in a manner which will minimize disturbance or risk of damage to surrounding structures, interior finishes, room furnishings, personal belongings, equipment or base infrastructure. The Contractor shall repair such items damaged by the Contractor in the course of carrying out the work at no additional cost to the government. All repairs shall match adjacent similar existing items in all aspects. All replacements will be in kind.

## **12. CLEANING UP**

---

The Contractor shall at all times, keep the premises free from accumulation of waste materials or rubbish caused by work under this contract. All parts and equipment removed for replacement become the property of the Contractor and shall be removed from the premises. At the end of each work day and upon the completion of all work, the Contractor shall leave interior and exterior property in the condition in which it was found at the beginning of work.

## **13. SAFETY PRECAUTIONS**

---

The Contractor shall take all necessary precautions in observing safety regulations in accordance with all Federal OSHA regulations and shall assume the responsibility to guard against causing of fires and/or explosions and to protect government property. The Contractor shall perform the work in a manner consistent with security and with fire safety regulations especially regarding exits and exit way access. Temporary closures shall not compromise security or fire safety.

#### **14. ENVIRONMENTAL PROTECTION**

---

There is no known or anticipated asbestos, lead nor any type of regulated hazardous material involved with the work of this project. However, in order to provide for control of all environmental pollution arising from construction activities, the Contractor and his subcontractors, in the performance of this contract, shall comply with all applicable federal state and local laws and regulations concerning environmental protection pollution control and abatement.

#### **15. HAZARDOUS MATERIAL REPORTING**

---

A. The Contractor shall maintain hazardous material inventories and material safety data sheets (MSDS) for all hazardous materials (as defined in CFR 1910.120, 40 CFR's 355, 370, & 372) to be stored and used on this installation. Hazardous materials must be inventoried when received and at project completion. The amounts used shall be maintained for the project duration, and for the calendar year (ending 31 December).

B. Hazardous Materials Inventories, Material Safety Data Sheets and material quantities used shall be submitted to the Contracting Officer for approval utilizing 439 AW Form 20, CONTRACTOR INFORMATION SHEET, at the end of this Section.

C. In the event of a spill, Contractor shall immediately notify the Base Fire Department at extension 911 as well as the Contracting Officer. The Contractor shall be solely responsible for the expense of any cleanup of such spill, and the cleanup shall be in accordance with the applicable provisions of 40 CFR Part 761.

#### **16. HAUL ROUTES**

---

The established haul access routes shall be the only routes used by the Contractor. The Contractor shall ensure that all vehicle operators associated with the project, or those of suppliers, are properly instructed before entering the Base.

#### **17. TEMPORARY STAGING AND CONSTRUCTION AIDS**

---

The Contractor shall provide, erect, maintain, and remove all necessary construction aids that are required for the performance of the work.

#### **18. CONSTRUCTION/DEMOLITION WASTE MANAGEMENT PLAN AND REPORTING**

A. Prior to the start of the work, the Contractor shall prepare and submit for approval the Construction Waste Management Plan utilizing the form provided at the end of this section.

B. The Contractor shall record, document and report the total amount of construction/demolition debris and other solid waste that is generated and disposed of under this contract. The Contractor shall also record the total amount of debris and waste that has been diverted through

sale, reuse, or recycling and the quantity of waste disposed by landfill or incineration. The waste shall be recorded by weight, but volume in cubic yards will also be acceptable.

C. Contractor will salvage and reuse the construction/demolition debris to the greatest extent possible. Waste materials that cannot be salvaged and/or reused and have value as being recyclable, shall be recycled. Only materials unable to be economically salvaged or recycled shall be transported to a landfill or incinerator. Revenues or other savings obtained for recycling or returns shall accrue to the Contractor, except revenues generated from Base recycling activities.

D. The records shall be made available to the Contracting Officer during construction and shall be submitted to the Contracting Officer prior to project closeout utilizing the Waste Management Summary Form also attached at the end of this section.

## **19. FORMS**



<b>I. PROJECT WASTE ANALYSIS</b>					
A. Types of Construction waste anticipated	Quantities & Options Available (tons)				
	Resale	Reuse	Recycle	Dispose	
1.					
2.					
3.					
4.					
B. Projected Cost of Disposal		Total Quantity (Tons)	Total Disposal Cost (\$)		
(All trash with no salvage or recycling)					
<b>II. LANDFILLS AND INCINERATORS TO BE USED</b>					
Name	Tipping Fee	Address	Telephone		
1.					
2.					
3.					
<b>III. SALVAGE PLAN (FOR RESALE, REUSE, OR RECYCLE)</b>					
A. List of Materials & Method of Reuse		Recycling Facility & Means of Transport			
		1.			
		2.			
		3.			
B. Cost to Salvage		Savings Resulting from Salvage		Net Cost/Savings	
Cost to Separate and Recycle		Reuse of Demo Materials	Revenues from Sale	Avoidance of Tipping Fees	(Savings – Costs)
1.					
2.					
3.					
<b>IV. RECYCLING MANAGEMENT PLAN TO PROTECT RECYCLED MATERIALS FROM CONTAMINATION:</b> Provide containers and bins that are clearly and appropriately marked.					
<ol style="list-style-type: none"> <li>Prevent contamination of recyclable materials from incompatible products and materials.</li> <li>Separate construction waste at the project site by one of the following methods: (check appropriate boxes)                     <ul style="list-style-type: none"> <li><input type="checkbox"/> Source Separated Method: Waste products and materials, that are recyclable, are separated from trash and sorted into appropriately marked separate containers and then transported to the respective recycling facility for further processing. Trash is transported to a landfill or incinerator.</li> <li><input type="checkbox"/> Co-Mingled Method: All construction waste is placed into a single container and then transported to a recycling facility where the recyclable materials are sorted and processed and the remaining trash is transported to a landfill or incinerator.</li> <li><input type="checkbox"/> Other methods proposed by the Contractor and approved by the Contracting Officer.</li> </ul> </li> </ol>					

**WASTE MANAGEMENT  
SUMMARY FORM**

I. PROJECT WASTE					FROM (COMPANY):		
QUANTITY (TONS)	LANDFILL SITE (# from Sect. II of Waste Mgt. Plan above)	TIP FEE/TON	TOTAL COST OF DISPOSAL, INCLUDING HAULING, CONTAINER RENTAL, TIP FEES	TOTAL COST/TON			
	1.				PROJECT NO:		<b>YTPM 17-0012</b>
	2.				SUBMITTAL DATE:		
	3.				TIME PERIOD (Month/year or Total Project start date to end date):		
II. ALTERNATIVES TO LAND FILLING							
TYPE OF MATERIAL	QUANTITY (TONS)	DESTINATION AND MEANS OF TRANSPORTATION (# from Section IV of Waste Management. Plan above)	COST TO HANDLE AND TRANSPORT (\$)	REVENUE & TIP FEE EARNINGS (\$)	NET COST (\$)	COST IF LANDFILLED (\$)	COMPARISON COST (+) OR SAVINGS (-) (\$)
Cardboard							
Wood							
Beverage containers							
Soil							
Concrete							
CMU							
Asphalt							
Metals							
Gypsum board							
Paint							
Carpet							
Insulation							
Glass							
Cast stone							
Electric cable							
PVC piping							
Rubber flooring							
Raised flooring							
Copper							
Plastics							
<b>III. TOTAL NET COST (+) OR SAVINGS (-) from all alternatives to land filling all project waste</b>							
<b>TOTAL</b>							

**QUARTERLY REPORT**  
**WESTOVER CONSTRUCTION/DEMO DEBRIS DISPOSAL & RECYCLING**  
**Form Created By: 439 MSG/CEV Environmental Office**

To meet the Air Force goal of diverting 60% of Construction and Demolition (C&D) Debris from the Waste Stream and the Massachusetts landfill-banned items law, Contractors shall recycle C&D debris to the maximum extent possible. This form should include **data for the previous three month period** for the **ENTIRE** duration of the project. Drop-off this Form at Westover Environmental Office, 250 Patriot Avenue or **email to Environmental Office: [champanine.saviengvong@us.af.mil](mailto:champanine.saviengvong@us.af.mil) (phone 607-237-5133)**

*ACCEPTABLE TO FILL OUT THIS FORM EITHER ELECTRONICALLY OR PEN & INK.*

**PROJECT TITLE:**

**CONTRACTOR COMPANY NAME:**

**WHICH QUARTER** (Jan-Mar, Apr-Jun, Jul-Sept, or Oct-Dec):

**TYPE ITEMS RECYCLED or RE-USED:**

\_\_\_ Concrete without rebar    \_\_\_ Concrete with rebar    \_\_\_ Asphalt    \_\_\_ Roofing Materials

\_\_\_ Scrap Metals    \_\_\_ Wood    \_\_\_ Concrete Block / Cinder Block  
/ Brick Clay

\_\_\_ Furniture (Salvaged)

\_\_\_ General Construction Debris (Sorting facility accepts a comingled/mixed-waste load.)

\_\_\_ Other: Specify

\_\_\_ Other: Specify

**TONNAGE OF ITEMS RECYCLED: \_\_\_\_\_ TONS**  
**{Be Comprehensive, Report Anything That Didn't Go To The Landfill.}**

**DISPOSED OF BY LANDFILL: \_\_\_\_\_ TONS**

**DISPOSED OF THROUGH REGULAR INCINERATION: \_\_\_\_\_ TONS**

**DISPOSED OF BY WASTE-TO-ENERGY INCINERATION: \_\_\_\_\_ TONS**

Page 1 of 2

**QUARTERLY REPORT**  
**WESTOVER CONSTRUCTION/DEMO DEBRIS DISPOSAL & RECYCLING**  
**Form Created By: 439 MSG/CEV Environmental Office**

**TOTAL COST FOR CONSTRUCTION/DEMO DEBRIS *LANDFILLED* THIS QUARTER :**

\$

**ACTUAL COST OF DEBRIS *DIVERTED* (from landfill) THIS QUARTER: \$**

\*\*\* If answer (cost to perform recycling/salvage/reuse/donation associated with the effort to minimize landfilling) is ZERO, **then answer the following question.**

**POTENTIAL COST OF DEBRIS *DIVERTED* (from landfill) THIS QUARTER:**

**\$**

When cost (to salvage/recycle) is actually **offset** by proceeds/rebates/savings to the point of there being **zero dollars** paid out, then contractor **still must provide an estimated** “cost avoidance” value. This means contractor must at least roughly estimate the POTENTIAL cost of recycling (i.e., transportation, handling, collection, manpower, fees, taxes, permits, tariffs, collection containers lease/purchase, etc.).

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**CONTRACTOR SIGNATURE & DATE (NOTE: Electronic Signature Acceptable)**