

# **REQUEST FOR PROPOSAL**

**For**

**Renovate FTD Classroom for F-35, B549**

**TYNDALL AFB FLORIDA**

**Project Number: XLWU 21-8108**

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## 1.0 SCOPE

- A. This is a Design-Build project to renovate interior elements of the existing building to meet the standards required to support the basing of F-35s at Tyndall AFB. Areas to be renovated are identified within this statement of work. The project is comprised of one building on Tyndall AFB and the related disciplines of work as specific tasks in Scope of Work (Appendix A). The Design-Build Team will consist of a Construction and design team Designer of Record (DOR) that shall perform the services herein and as described in this Statement of Work (SOW).
- B. The Contractor shall be responsible for all professional services, A/E design, permits, equipment, labor, tools, materials, and ancillary items necessary to complete the tasks defined by the SOW, including the disposal of all resulting waste materials and project clean up. The performed tasks shall be based on the project description, other data furnished in this SOW, and information covered during kick-off meeting.
- C. This SOW sets forth the requirements for Design / Build (DB) contract site-specific design and construction effort to remove, repair and restore interior and exterior elements and related infrastructure within a building on Tyndall AFB, Florida.
- D. See Appendix B for Supporting Documentation.

## 1.1 GENERAL REQUIREMENTS

- A. Applicable provisions of the Contract Clauses in the contract will govern work under each section of the specifications.
- B. This project has an estimated period of performance from Notification to Proceed (NTP) through completion and turnover of the facility back to the Government for mission operations of 280 calendar days.
- C. Proposal Documents: The contractor shall complete the proposal schedule included in the solicitation and include the completed schedule with the submitted proposal documents.
- D. Measurements: The GC is required to validate dimensions and quantities. The quantities are listed as approximations and GC field measurements and quantity verification should be used for bidding package.
- E. Field Changes: The Contractor and the Government may agree to perform a no cost field change. Field changes are made when the change appears to be mutually beneficial to all parties and would not require changing the negotiated items. All field changes must be approved by the CO prior to execution. Only the CO may authorize field changes or deviations from the SOW.

- F. Job Start Meeting: A job start meeting shall be accomplished with the Contractor, Contracting Officer, CE, and user upon acceptance of the 95% design submission. The meeting objective is to review project details, determine construction start date, security procedures for site, dumpster locations, and any applicable requirements during construction. The Contractor shall visit the job site to verify location, conditions, and dimensions prior to starting work.
- G. Facility Occupancy: The facility covered by this contract is currently occupied and functional. The personnel assigned to this building will be occupying a large portion of the building during construction. The contractor will be expected to coordinate closely and with ample lead time any requests to the CO/COR for the user to relocate or suspend their mission inside the building. During performance of this contract, non-work areas will remain functional to normal base activities. The Contractor is responsible for diverting and restricting pedestrian and vehicle traffic if required for any reason for the duration of the performance period.
- H. Bulletin Board: Immediately upon mobilization, the Contractor shall provide a bulletin board not less than 36 by 48 inches (915 by 1220 mm) in size for displaying the Equal Employment Opportunity poster, a copy of the wage determination contained in the contract, Wage Rate Information poster, and other information approved by the Contracting Officer. The bulletin board shall be located at a site in a conspicuous place easily accessible to all employees, as approved by the Contracting Officer due to the project being located on the airfield. Legible copies of the aforementioned data shall be displayed until work is completed. Upon completion of work the bulletin board shall be removed by and remain the property of the Contractor.
- I. Employee Parking: Contractor employees shall park privately owned vehicles in an area designated by CES and approved by the CO.
- J. Job Site Tools and Equipment: All hand tools and equipment shall be maintained in good working conditions and properly stored when not in use. Construction attire shall be in accordance with applicable OSHA regulations.
- K. Notification Requirements: The Contractor shall notify the Government a minimum of ten (10) days in advance of each mobilization. The Contractor is required to notify the CO and Government Project Manager of critical issues that may affect the contract performance and/or human health and the environment. For critical issues pertaining to human health and the environment, the Contractor shall immediately notify the CO and stop work. Work shall only resume at the direction of the CO following resolution of the issue.
- L. On-Site Field Oversight: The Contractor shall provide the manpower, equipment, material, services, and transportation necessary to ensure oversight services throughout accomplishment of the construction period for the contract. It is the responsibility of the

Contractor to establish and maintain open communications between salient authorities associated with accomplishment of this contract.

M. Federal Holidays: Tyndall AFB observes the following Federal Legal Holidays:

New Year's Day	1 Jan
Martin Luther King Birthday	Third Monday in Jan
Presidents Day	Third Monday in Feb
Memorial Day	Last Monday in May
Independence Day	4 July
Labor Day	First Monday in Sep
Columbus Day	Second Monday in Oct
Veterans Day	Nov 11
Thanksgiving Day	Fourth Thursday in Nov
Christmas Day	25 Dec

N. Working Hours: The normal duty hours of the facility are from 7:00 AM to 5:00 PM, Monday thru Friday excluding Federal Holidays. All work shall be performed during normal duty hours. All other hours to include weekend and holidays shall be requested through the CO for approval. This request shall be submitted no less than three (3) workdays prior to the time requested.

O. Availability and Use of Utility Services: The Government will make all reasonably required utilities available to the Contractor from existing outlets and supplies, as specified in the contract.

P. Sanitation: The Contractor shall provide and maintain within the construction area minimum field-type sanitary facilities approved by the CO. Government toilet facilities will not be available to Contractor's personnel.

Q. Clean Up: At the end of each working day the Contractor shall clean up the work site by the removal of all construction debris, waste materials, packaging material and the like. If the before mentioned items could become airborne they shall be placed in refuse containers immediately. Clean up of the work site shall include the construction area(s), construction office area(s), material storage area (s), parking and eating area(s), and any

other area(s) affected by the construction process. Any dirt or mud which is tracked on to any Base street, parking area, sidewalk, patio, or driveway shall be cleaned away daily. Materials resulting from demolition activities which are salvageable shall be stored within the work area or at a supplemental storage area. Stored material not in trailers, whether new or salvaged, shall be neatly stacked when stored in an approved location.

- R. Contractor's Management and Use of Electromagnetic Emission Devices on Base: (Electromagnetic emission devices include: Radio/Radar Transmitters; Navigational Aids/Instrumentations; Signaling, Intrusion Detecting, and Identification Devices; Mobile and Fixed Business Radio Communications Equipment; and MARS, CBs, and Amateur Radio Stations.) The Contractor shall comply with the Air Force Military Training Center (AFMTC) Regulation 700-14, Jul 89.
- S. Preparation of Progress Schedules and Reports: The reports contemplated by FAR Clause, 52.236-15, Schedules for Construction Contracts, shall be accomplished on and in accordance with instructions pertaining to AF Form 3064, Contract Progress Schedule, and AF Form 3065, Contract Progress Report. Contract Schedules and Reports shall run from Monday through Sunday and be submitted to the CO per table of deliverables located in 4.0.C, Table 1.
- T. Deteriorated Construction and Finish: The COR will be the governing authority in determining if existing construction and finishes are deteriorated and require repair and/or replacement.
- U. Contractor Storage / Staging Area:
- a. Operations and Storage Approval: Notwithstanding Contract FAR Clause, FAR 52.236-10, Operations and Storage Areas, subject to approval by the CO and in turn, availability and need, a storage/staging area shall be provided at the subject project site.
  - b. Utility 'tie-ins', where available, are the Contractor's responsibility.
  - c. Storage Area Clean Up: Weekly discard trash and debris in the Contractor's containers (dumpsters). Do not allow debris to accumulate. At work completion, clean the storage area. This area must be free of any materials, trash or debris before receipt of final payment.
  - d. In areas of high visibility, the job site construction fence shall have a screen fabric material applied to the fence fabric in order to block the view during the construction phase. The CO will make the determination at the pre-construction meeting if the subject project will require a screened fence or not. Remove fence upon completion. Rehabilitate disturbed turfs and grass and if reseeding is required use Bermuda grass.

- V. Hazardous component abatement for materials such as asbestos, lead-based paint, PCBs, and other hazardous materials shall be the responsibility of the Contractor. Abatement of mold resulting from water damaged materials shall be the responsibility of the Contractor.
- W. The duration of days is considered calendar days unless otherwise noted.

## **2.0 APPLICABLE DOCUMENTS**

- A. The Contractor shall identify and comply with all applicable federal, state, and local laws; statutes; Executive Orders; Department of Defense/Air Force manuals, handbooks, regulations, guidance, and policies. The contractor shall comply with the National Institute of Building Sciences' Whole Building Design Guide Construction Criteria Base (CCB) Unified Facility Criteria (UFC) 3-600-01 and all of the related libraries. The primary criteria are the Air Force Criteria from the Documents Library, but other agency criteria may be directed for use, depending on the customer agency for a particular TO. The Unified Facilities Guide Specifications (UFGS) is the mandatory starting point for all specifications, and shall not be deleted, materially modified, or made less stringent without Government approval. It is the contractor's responsibility to identify and comply with all applicable requirements. It shall be the contractor's responsibility as the Designer of Record (DOR) to identify any design/construction criteria waivers that are warranted for the Project and to accomplish all necessary coordination activities necessary to obtain approval of these proposed waivers through the Contracting Officer (CO), and/or Project Manager (PM).
- B. In addition, the contractor shall refer to and comply with the current versions of the Department of Defense Policy and Guidelines for Acquisitions Involving Environmental Sampling or Testing and The United States Air Force Construction Management Implementation Guide as well as the latest version of The USAF Project Manager's Guide to Design and Construction. Base-specific documents are identified in the attached appendices.
- C. The Contractor and Design Team shall adhere to the following guidance during design and construction phase(s) of this project: Those sections of the Southern Standard Building Codes not incorporated in the UBC/International Building Code (IBC) for our respective area, International Concrete Repair Institute (ICRI) Guidelines, Air Force Standards, Department of Defense (DOD) Directives, Florida State Statutes, and the Tyndall AFB Facility Excellence Plan (Base Regulations), Occupational Safety and Health Administration (OSHA) Requirements, Department of Environmental Protection (DEP) Regulations, Environmental Protection Agency (EPA) Regulations, and ABA Accessibility Compliance Requirements.
- D. In addition to adhering to the previous guidance, the Contractor shall review and adhere to the most recent version of the following code criteria as applicable at start of the design phase:



a.	UFC 1-200-01	The DoD Building Code
b.	UFC 1-200-02	High Performance and Sustainable Building Requirements
c.	UFC 1-300-02	Unified Facilities Guide Specifications (UFGS) Standard
d.	UFC 1-300-08	Criteria for Transfer and Acceptance of DoD Real Property
e.	UFC 3-101-01	Architecture
f.	UFC 3-110-03	Roofing
g.	UFC 3-110-04	Roofing Maintenance and Repair
h.	UFC 3-190-06	Protective Coatings and Paints
i.	UFC 3-250-08FA	Sealing Joints and Cracks
j.	UFC 3-301-01	Structural Engineering
k.	UFC 3-310-04	Seismic Design for Buildings
l.	UFC 3-400-02	Design: Engineering Weather Data
m.	UFC 3-401-01	Mechanical Engineering
n.	UFC 3-410-01	Heating, Ventilating, and Air Conditioning
o.	UFC 3-410-02	Direct Digital Control for HVAC
p.	UFC 3-410-04	Industrial Ventilation
q.	UFC 3-420-01	Plumbing Systems
r.	UFC 3-430-09	Exterior Mechanical Utility Distribution
s.	UFC 3-450-01	Noise and Vibration Control
t.	UFC 3-500-01	Electrical Engineering
u.	UFC 3-520-01	Interior Electrical Systems
v.	UFC 3-530-01	Interior and Exterior Lighting and Controls
w.	UFC 3-550-01	Exterior Electrical Power Distribution
x.	UFC 3-560-01	Electrical Safety O&M
y.	UFC 3-570-01	Cathodic Protection
z.	UFC 3-575-01	Lightning and Static Electricity Protection
aa.	UFC 3-580-01	Telecommunications Interior Infrastructure
bb.	UFC 3-600-01	Fire Protection Engineering for Facilities
cc.	UFC 4-010-01	DOD Minimum Antiterrorism Standards for Buildings
dd.	UFC 4-010-05	Sensitive Compartmented Information Facilities
ee.	UFC 4-021-01	Mass Notification Systems
ff.	UFC 4-021-02	Electronic Security Systems
gg.	UFC 4-211-01	Aircraft Maintenance Hangars
hh.	USAF BIM	Minimum Requirements Version 2.1
ii.	ASCE 7-10	Wind Loads
jj.	AFI 32-1065	Grounding System
kk.	ASHRAE 62.1	Ventilation for Acceptable Indoor Air Quality
ll.	ASHRAE 90.1	Energy Standard for Bldgs. Except Low-Rise Residential
mm.	ASHRAE 100	Energy Conservation in Existing Buildings
nn.	ASHRAE 111	Testing, Adjusting, and Balancing of Building HVAC Systems
oo.	ASHRAE 180	Inspection & Maintenance Commercial Bldg. HVAC Systems
pp.	ASHRAE 202	Commissioning Process for Buildings and Systems
qq.	ASHRAE Guide 4	Prep of Operating and Maintenance Documentation

- |      |                  |                                                                           |
|------|------------------|---------------------------------------------------------------------------|
| rr.  | EM 385-1-1       | USACE Safety and Health Requirements Manual                               |
| ss.  | FAR              | Federal Acquisition Regulations                                           |
| tt.  | FS 553           | Florida Building Code                                                     |
| uu.  | IBC 2018         | International Building Code, 2018 Edition                                 |
| vv.  | IMC              | International Mechanical Code                                             |
| ww.  | IPC              | International Plumbing Code                                               |
| xx.  | NBIMS US V3      | National BIM Standard US Version 3                                        |
| yy.  | NEBB             | Standards for Whole Building Systems Commissioning                        |
| zz.  | NFPA 13          | Standard for the Installation of Sprinkler Systems                        |
| aaa. | NFPA 70          | National Electric Code                                                    |
| bbb. | NFPA 72          | National Fire Alarm Code                                                  |
| ccc. | NFPA 101         | Life Safety Code                                                          |
| ddd. | NFPA 780         | Standard for the Installation of Lightning Protection System              |
| eee. | SMACNA Guides    | Sheet Metal & Air Conditioning Contractors' National Assoc.               |
| fff. | TAFB FEP         | TAFB Facility Excellence Plan                                             |
| ggg. | TAFB IFS         | TAFB Installation Facility Standard                                       |
| hhh. | USAF BIM         | Minimum Requirements Version 2.1                                          |
| iii. | UFGS 23 09 00    | Instrumentation and Control for HVAC                                      |
| jjj. | UFGS 23 09 13    | Instrumentation and Control Devices for HVAC                              |
| kkk. | UFGS 23 09 23.02 | BACnet Direct Digital Control for HVAC and Other Building Control Systems |
| lll. | UFGS 23 09 93    | Sequences of Operations for HVAC Controls                                 |
| mmm. | UFGS 25 05 11    | Cybersecurity for Facility-Related Control Systems                        |
| nnn. | UFGS 23 08 10    | Utility Monitoring and Control System Testing                             |
| ooo. | UFGS 25 10 10    | Utility Monitoring and Control System (UMCS) Front End and Integration    |
| ppp. | AFGM 2018-32-01  | Civil Engineer Control Systems Cybersecurity                              |
- E. The Contractor shall perform all work IAW with AFI, ETL, UFC and industry standards. Compliance with AF UFCs is mandatory unless the IFS has more stringent requirements. If the Contractor determines that the work cannot be performed and/or included in the SOW IAW with ETL's/UFCs or industry standards, the Contractor shall notify the Tyndall AFB POC listed in this document in writing immediately before award of the contract. Otherwise, the Contractor shall be responsible for the required work.
- F. All work shall be in compliance with all Public Laws (P.L.), Executive Orders (E.O.), Code of Federal Regulations (CFR), Department of Defense Instructions (DODI), Department of Defense Directives (DODD), or other higher authority documents as applicable. Many applicable compliance documents are authorized by DoD MIL-STD-3007E, and are available through the Government-sponsored Whole Building Design Guide located at <https://www.wbdg.org>.

- G. If there is a conflict between these codes, regulations specifications, and/or guidance documents, the most stringent requirements shall apply, as determined by the CO through the Request for Information (RFI) process. These listed documents do not relieve the Contractor from complying with other required regulatory documents not listed.
- H. The Contractor shall ensure that all facility systems under construction or renovation comply with codes current as of the date of contract award.

### **3.0 GOVERNMENT PROPERTY INCLUDING GOVERNMENT FURNISHED INFORMATION, EQUIPMENT, AND PROPERTY (GFI, GFE, GFP)**

- A. Historical architectural and structural construction documents are available for review, however field verification and documentation of existing conditions and configurations prior to construction is essential.
- B. Field Measurements: The Contractor shall be required to make his/her own field investigations to verify existing conditions, dimensions and other information shown on Government furnished reference drawings, solicitation documents and construction documents. Deviations, errors, or omissions in the government supplied reference materials or the design team's construction documents shall be identified and addressed by the contractor during the design phase of the contract.

### **4.0 MANAGEMENT, PLANNING, AND REPORTING REQUIREMENTS**

- A. Submittal documents shall be submitted and distributed as shown in the Table of Submittal Documents below. The table shows major milestone documents and is not inclusive of all submittals required by the contract. Documents shall be submitted with AF Form 3000, Material Approval Submittal.
- B. Submittal documents shall include required forms, reports, drawings, samples, pictures, media recordings, manufacturer data, certifications, test reports, equipment warranty information, and the like. Submittal documents shall be submitted by the Contractor to the by CO for approval. All submitted documentation shall become the complete property of the Government. The Contractor shall not purchase, install, or construct any equipment or facility component, for which a submittal is required, without first obtaining an approved signed submittal from the CO. Required submittals shall be listed on AF Form 66, Schedule of Material Submittals, and/or a Submittal Register approved by the CO.
- C. Table of Deliverables: Project deliverables shall be as shown in the following Table 1. The dates in the table are hard dates not to be exceeded without CO approval. The deliverables and scheduled activities may be provided or completed early.

Table 1  
Table of Deliverables

Document	Copies				Max Delivery Timeframe
	325 CES		325 CONS		
	Electronic	Hard	Electronic	Hard	
<b>Standard Meetings and Reports</b>					
Meeting Minutes	1	0	1	0	3 calendar days after each meeting
Progress Schedule (AF 3064 or approved equivalent)	1	0	1	0	5 calendar days after NTP or modification to extend PoP
Progress Report (AF 3065 or approved equivalent)	1	0	1	0	Weekly
3-week Look Ahead report	1	0	1	0	Weekly
Daily Logs - Form 1477 or equiv.	1	0	1	0	Weekly
HAZMAT Forms 81 and 82	1	1	1	1	10 Days prior to job start meeting
Work Clearance Request (AF Form 103A)	1	1	1	1	10 Days prior to job start meeting
Material Approval (AF Form 3000)	1	0	1	0	At the 95% Final Design
Construction Material Testing Reports	1	0	1	0	As required
Welding/Burn Permit	1	0	1	0	Prior to commencing work
Production or Delivery Problem Report	1	1	1	1	At time of identification
Draft DD1354	1	0	1	0	When request for final inspection is submitted
<b>Work Activities</b>					
IMS, WBS and AF 3064/3065	1	0	1	0	15 Days Prior to NTP
Kickoff meeting with all stakeholders	1	0	1	0	5 Days Prior to NTP
Health and Safety Plan (HSP) or (APP)	1	0	1	0	Prior to site visits
NTP	1	0	1	0	
Contractor Site Investigation	1	0	1	0	5 Days from NTP
Design Quality Plan (DQCP) or (DQSP)	1	0	1	0	Prior to Design Starting

Document	Copies				Max Delivery Timeframe
	325 CES		325 CONS		
	Electronic	Hard	Electronic	Hard	
Quality Control Pan (QCP) or (QSP)	1	0	1	0	Prior to construction activities
Construction Work Plan (CWP)	1	0	1	0	Prior to construction activities
Site Investigation Memorandum	1	0	1	0	10 Days from NTP
35% Design w/ AF Form 3000	1*	0	1*	0	40 Days from NTP
35% Design Review and Charrette Meeting	1	0	1	0	10 Days from 35% Design Submittal
35% Design and Charrette Meeting Minutes Acceptance and Approval	1	0	1	0	20 Days from 35% Design Submittal
35% Design Final Submittal and Approval	1	0	1	0	30 Days from 35% Design Submittal
95% Design w/ AF Form 3000	0	0	0	0	90 Days from NTP
95% Design Review and (Charrette Meeting if not conducted prior to 95%)	1	0	1	0	5 Days from 95% Design Submittal
95% Design and (Charrette Meeting Minutes if not conducted prior to 95%) Acceptance and Approval	1	0	1	0	10 Days from 95% Design Submittal
95% Design Final Submittal and Approval	1	0	1	0	20 Days from 95% Design Submittal
100% Design w/ AF Form 3000	1*	0	1*	0	25 Days from 95% Final Design
Design Documents	1	0	1	0	5 Days from 100% Design Submittal
100% Design Review Meeting	1	0	1	0	5 Days from 100% Design Submittal
100% Design Comments acceptance and approval	1	0	1	0	15 Days from 100% Design Submittal
100% Design Submittal and Approval	1	0	1	0	25 Days from 100% Design Submittal
Demolition Plan when demolition activities	1	0	1	0	Prior to 100% Design Approval
Environmental Plan	1	0	1	0	Prior to 100% Design Approval
Red Line drawings Submitted	1	0	1	0	15 Days prior to Start Work
Draft Phasing Plan	1	0	1	0	10 Days prior to Start Work

Document	Copies				Max Delivery Timeframe
	325 CES		325 CONS		
	Electronic	Hard	Electronic	Hard	
Final Phasing Plan	1	0	1	0	5 Days prior to Start Work
Mobilization of Contractor	0	0	0	0	140 Days after NTP
Job Start Meeting	1	0	1	0	140 Days after NTP
Implementation of the Design					140 Days
Red Zone Meeting	1	0	1	0	60 Days Prior to Beneficial Occupancy Date (BOD)
Pre-Final Inspection	1	0	1	0	At end of Implementation
Pre-Final Inspection Report	1	0	1	0	5 Days prior to Final Inspection
Operations & Maintenance Manuals	1	1	1	1	5 Days prior to Final Inspection
HAZMAT Form 83	1	0	1	0	Prior to Final Inspection
Final Inspection	1	0	1	0	10 Days after Pre-Inspection
Final Inspection Report	1	0	1	0	5 Days After Final Inspection
O&M's Review	1*	1	1*	0	5 Days After Final Inspection
As-Built Design Documents	1	0	1	0	5 Days After Final Inspection
As-Built Design Drawings	1*	0	1*	0	5 Days After Final Inspection
O&M's Acceptance	1*	1	1*	0	15 Days After Final Inspection
Transfer & Acceptance of Military Real Property (DD 1354)	1	1	1	0	5 Days after Final Design Approval
O&M's to user	1	0	1	0	10 Days after Final Design Approval
User training	1*	1	1*	0	15 Days after Final Design Approval
<b>Items in red may be tailored to fast track requirement</b>					
<b>*Both Autodesk AutoCAD and Adobe Acrobat versions of drawings are required</b>					

- D. Electronic copies of all design deliverable documents shall be provided on CD or DVD discs, formatted for use by the latest software version, and compatible with the Government's version of Microsoft Word, Excel, PowerPoint, Access, Outlook, the Adobe family of products, the Autodesk family of applications, the ANSYS family of applications, or other software platform as appropriate and as determined and directed by the CO. Whenever possible, the electronic files given to the Government should be compatible with at least one software program application listed on the Air Force Evaluated Products List

(EPL) or the Defense Information Systems Agency (DISA) Approved Products List (APL). For any submitted documents converted to one of the above formats from another software program, the Contractor shall also submit the electronic document file from the software program originally creating it, along with a statement describing what creating software program and version was used, as well as any programs used to convert files from one format to another. Submitted electronic files shall be unlocked and fully editable.

#### **4.1 WORK BREAKDOWN STRUCTURE (WBS) – NOT APPLICABLE**

#### **4.2 SCHEDULE AND PLANNING REQUIREMENTS: SEE SECTION 1.1 GENERAL REQUIREMENTS**

##### **4.2.1 Project Planning Chart (PPC) and/or Construction Planning Chart (CPC) – Not Applicable**

##### **4.2.2 Integrated Master Schedule (IMS)**

##### **4.2.2.1 Contract Progress Schedule (AF 3064)**

- A. The Contractor shall submit a signed AF 3064, Contract Progress Schedule, depicting an overall contract progress schedule for the main elements of work for the period of performance as described in the Table of Deliverables. The line items, associated project percentages, and dates shall accurately depict the planned work to be performed.
- B. A template spreadsheet may be provided by the government to use for progress reporting.
- C. The progress schedule shall be signed by CE recommending approval and approved by the CO.

##### **4.2.2.2 Contract Progress Report (AF 3065)**

The Contractor shall submit AF 3065 as described in the Table of Deliverables. This report shall be signed by the Contractor's on-site representative in the Remarks section of the AF 3065. The work elements and percentages of the total job identified on the AF 3065 shall be identical to the work elements and percentages on the AF 3064. The Contractor shall obtain either the COR or the Government contract inspector's acceptance by signature of the actual reported progress prior to submission to the CO. Additionally, the Contractor shall submit the updated AF 3064 as an attachment to the AF 3065.

##### **4.2.2.3 Submitting Schedules and Reports**

- A. Contract Progress Report: Contract Schedules and Reports shall run from Monday through Sunday and be submitted to the CO by Tuesday of the following week. Contractor will prepare reports covering activities for days work and give one to the

Government Inspector for each week of work even if there was no work accomplished that week. The weekly report may be turned in for each week at the end of the week when construction begins.

- B. A 3064/3064/schedule spreadsheet may be used to coordinate progress reporting. An example spreadsheet can be provided.

#### **4.3 STATUS REPORTING**

##### **4.3.1 Reporting Requirements for Firm Fixed Price (FFP) – Not Applicable**

##### **4.3.1.1 Contractor’s Progress, Status, and Management Report (CPSMR) – Not Applicable**

#### **4.4 MEETING AND CONFERENCE REQUIREMENTS**

- A. Upon award the Contractor shall attend the following meetings at a minimum: Project Kickoff and Pre-Construction Job Start, 35% Design Review, 95% Design Review, 100% Design Review, Corrected Design Review, Incremental Site Inspection (as needed), Test and Balance (as needed), Commissioning (as needed), Pre-Final Inspection, Final Inspection, and other meetings (as needed). The Contractor shall participate in other meetings as needed to facilitate the project’s work, and as required by the CO.
- B. Kickoff and Pre-Construction Meeting
  - a. The Contractor shall attend a Project Kickoff and Pre-Construction Meeting at TAFB. The Contractor shall review the most updated versions of codes, standards, and policies applicable to this project prior to the meeting. These documents should include TAFB design standards, DoD Unified Facility Criteria, and the Florida Building Code, among others including those referenced in this document. The Contractor shall, at the Project Kickoff and Pre-Construction Meeting, submit a memorandum stating that applicable codes, standards, and policies were reviewed; stating which documents (title, revision number, date, source, etc.) were reviewed, and listing any RFI’s that resulted from the review.
  - b. The purpose of these meetings is to introduce project stakeholders, clarify the scope of work, review TAFB policies, and communicate information pertinent to the project. Within the time listed in Table 1 of the meeting, the Contractor shall submit minutes for approval.

##### **4.4.1 Meeting/Teleconference Support**

- A. Minutes accurately recording the discussion of the meeting’s subjects and issues as actually related by the attendees shall be distributed to attendees for review, comment, and correction. The Contractor may record meetings; however when recording will be



used this must be announced audibly at the start of the meeting. If known in advance, the Contractor shall include a note on the agenda that recording will be used. Any time a recording is made this must be noted in the meeting minutes. The Government may elect to record any meeting or telephone conversation.

- B. Minutes shall be distributed to attendees for review, comment, and correction the time listed in Table 1 of meeting events.
- C. Unedited digital copies of all Contractor recordings shall be provided to the Government within 3 days of the recording date.

#### **4.4.2 Red Zone Meeting**

- A. Minutes accurately recording the discussion of the meeting's subjects and issues as actually related by the attendees shall be distributed to attendees for review, comment, and correction. The Contractor may record meetings; however when recording will be used this must be announced audibly at the start of the meeting. If known in advance, the Contractor shall include a note on the agenda that recording will be used. Any time a recording is made this must be noted in the meeting minutes. The Government may elect to record any meeting or telephone conversation.
- B. Minutes shall be distributed to attendees for review, comment, and correction the time listed in Table 1 of meeting events.
- C. Unedited digital copies of all Contractor recordings shall be provided to the Government within 3 days of the recording date.

#### **4.4.3 Senior Advisory Group (SAG) and Senior Executive Review Group (SERG) – Not Applicable**

#### **4.5 CONTRACTOR DOCUMENTATION**

- A. The Contractor shall also create and submit for approval a Table of Deliverables, which includes the documents required by the approved Submittal Register. The Table of Deliverables shall indicate when documents shall be submitted for review and approval.
- B. Design Package:
  - a. The Contractor shall prepare and submit for review and approval a design package. The package shall be submitted at the 35% level, 95% level, and the 100% design level. (See Table 1 for deliverable dates.) The various required elements of the design package are discussed and detailed in other sections of this document.
  - b. Government Review: The Contracting Officer or the authorized representative may furnish the contractor review comments on the data submitted at the 35%, 95% and

100% design phase submittals. The Government's review is intended to be limited to functional aspects, with limited technical review of a general cursory nature only. Any review by the Government of technical items shall not be construed to relieve the contractor of responsibility for technically correct and complete documents in compliance with applicable codes, industry standards, and the intent of this SOW. Review comments for compliance with Federal Acquisition Regulations (FAR) will also be provided by the Contracting Officer. Government design review comments will be issued to the contractor within 30 days of design submittal receipt. If any review comment requires clarification and/or amplification to assure compliance, the contractor shall notify the Contracting Officer or the authorized representative in writing. After each review, the contractor will be furnished the comments to be annotated and returned to the Government. The contractor shall furnish these annotated comments to the Government no later than 5 calendar days after receiving the comments. The contractor shall comply with the review comments in the development of data for the next submittal.

- c. The Contractor shall provide 100% Final Design package for approval. All previous Government comments shall be addressed in this design package. No review conference is required for this design submittal. The submittal will be formally approved upon verification that the package is complete, and all previously provided review comments have been addressed.

#### C. Submittal Register:

- a. The Contractor shall use AF Form 66, Schedule of Material Submittals. The modified submittal register shall include design phase submittals, construction phase submittals, and project close out submittals. It shall also include copies of any submittal forms likely needed by the construction Contractor. The submittal register shall include the documents listed below, in addition to other documents, as applicable.
- b. The Contractor shall provide 35%, 95% and 100% design for review and comment (see deliverables table). This package shall be in a substantially complete design state. The Government will perform a design submittal review and provide the Contractor with review comments as defined in Section 4.5.B.b. Contractor shall schedule and attend a final review conference meeting at Tyndall AFB, FL. Formal acceptance of the submittal will be issued when the government comments have been addressed in the construction documents. Refer to the Table of Deliverables for submittal details.
- c. Partial Design Submittal List of Requirements
  1. AF Form 3000 documenting the submittal Contents.
  2. Table of Contents.
  3. Construction documents.
  4. Fully populated AF Form 66; Schedule of Material Submittals.

#### **4.6 NOTIFICATION REQUIREMENTS**

The Contractor shall also create and submit for approval a Table of Deliverables, which includes the documents required by the approved Submittal Register. The Table of Deliverables shall indicate when documents shall be submitted for review and approval. The Government shall have up to the time listed in Table 1 to review submittal documents.

#### **4.7 PERMITS**

- A. The Contractor shall develop, coordinate, and be responsible for labor, professional services and other costs associated with acquiring any and all required state, local, and other applicable permits; base access (including off-base easements and leases), agreements, licenses, and certificates required to perform and complete the project. Before the start of work, the Contractor shall process an Air Force Form 103, Work Clearance Request, through the local Base Civil Engineer (BCE) office. The Contractor shall comply with applicable permit conditions, environmental protection policies and appended guidelines.
- B. The contractor shall comply with all applicable permit conditions and shall keep all permits “current” until construction is 100% complete. The contractor may be required to provide the permits to the Government as required.

#### **4.8 PHOTO DOCUMENTATION**

- A. If photos are taken, the Contractor shall use a consistent file naming convention for photographs throughout the project. All photographs submitted shall have unique filenames. Photography of any kind must be coordinated through the COR (TBD). Photography of spaces beyond the SOW is prohibited.
- B. If photos are taken, the Contractor shall obtain a Photography Pass. Photography of any kind must be coordinated through the installation, customer, or facility POC. Photo documentation shall be loaded to the Data Collaboration Site as specified at the project level, as requested by the base POC or directed by the COR and/or PM.

#### **4.9 REMOTE AND / OR AUSTERE SITES – NOT APPLICABLE**

#### **4.10 SITE ACCESS BADGES**

- A. The Contractor shall be responsible for obtaining security clearances and badges for each employee, and for requiring each employee engaged on the work to display identification as approved and directed by the CO and Security Forces. Prescribed identification shall immediately be delivered to the CO for cancellation upon release of any employee. All

Contractor and sub-contractor personnel shall wear identifying markings clearly defining the company for whom the employee works.

- B. Contractor must submit at least 14 days in advance to 325th CES Project Manager and/or Construction Manager the paper work (base pass ID) required for their personal access.

## **4.11 WORKSITE ACTIVITIES AND COORDINATION**

### **4.11.1 Coordination of Activities**

#### **A. Pre-proposal Site Visit**

- a. Prior to submitting a proposal for this project, prospective Contractors are highly encouraged to attend a site visit, which may provide an opportunity to gain a greater appreciation of both the existing conditions and of the operational environment impacting the project.
- b. Site Design Data: The contractor is responsible for field reconnaissance, surveys, site investigations and testing required to obtain engineering information and design data for the accomplishment of the contract documents for the project in accordance with requirements of this Statement of Work (SOW).

### **4.11.2 Radiological Waste, Hazardous Material and Hazardous Waste Permitting and Reporting**

The Contractor shall notify the CO and obtain approval prior to transporting, receiving, and/or disposing of any radiological or hazardous materials or wastes. All such materials or waste shall be handled in accordance with applicable federal, state, and local requirements. The Contractor shall provide all radiological waste, hazardous materials use and hazardous waste disposal documentation to the CO 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), Executive Orders, or any installation reporting requirements.

#### **4.11.2.1 Hazardous Material and Hazardous Waste**

The Contractor will submit TAFB IMT Form 81 (Contractor Questionnaire) and TAFB IMT Form 82 (Chemical Inventory) 7 to 10 days upon issuance of the notice to proceed and prior commencement of work on site. The Contractor should note that Tyndall AFB is required to report chemicals such as (but not limited to) compressed gases, adhesives, aerosol cans, sealants, paints, lubricants, solvents, oils, cleaners, degreasers and pesticides. Copies of manufacturer-specific Material Safety Data Sheets must be attached to TAFB IMT Form 82. After submission, CEIEC will notify the Project Manager and/or CONS of the reportable chemicals and of any special instructions. The Contractor is required to submit TAFB IMT Form 83 (Reporting Entry Form) monthly. CEIEC must

be notified if anything changes from the original submittal (i.e. new chemical is added, size of container or unit of issue changes or if the manufacturer changes).

#### **4.11.2.2 Environmental Protection**

- A. The project shall minimize environmental pollution and damage that may occur as the result of construction operations. The environmental resources within the project boundaries and those affected outside the limits of permanent work must be protected during the entire duration of a project. Contractor shall comply, and assure that all sub-contractors comply, with all applicable federal, state, and local laws and regulations, Air Force Instructions, Engineering Technical Letters, regulations, ordinances, policies and standards related to environmental matters. Copies of local policies and procedures will be provided to the contractor upon request.
- B. The use of materials which have been identified by Governmental agencies as being hazardous or creating potentially hazardous conditions will not be allowed on any project. Specifically, products containing lead, asbestos, polychlorinated biphenyl (PCB), and Ozone depleting chemicals are prohibited. The contractor shall assume a strict and cautious position in responding to reports of other materials, which may be identified as hazardous during construction period.
- C. If any material originally specified or approved for use in the work should become listed as suspected or verified as being hazardous, the contractor shall immediately notify the Contracting Officer and initiate efforts to postpone the installation or use of the material until the matter can be investigated.
- D. All contractors must comply with requirements for the protection of natural resources (e.g. wetlands) and cultural resources (archeological sites and historic buildings).
- E. The contractor shall reimburse the Government for any remediation undertaken to clean up releases by the contractor and for any civil or criminal fines or penalties for any environmental infraction caused by the contractor.

#### **4.11.2.3 Environmental Permits**

- A. Obtaining and complying with all environmental permits and commitments required by Federal, State, Regional, and local environmental laws and regulations is the Contractor's responsibility.
- B. All permits applications will be staffed through 325 CES/CEIE for signature and forward to Florida Department of Environmental Protection or US Army Corps of Engineers as necessary.
- C. Typical environmental permitting process for execution methods:

- a. Design-Build: The prime contractor's A/E shall provide the necessary design work, payment, and application forms to obtain any permits for potable water, sanitary sewer, storm water treatment facility, and 62-621 construction activity as part of the overall contract. The prime contractor is responsible for completion of the necessary as-built permit certifications once the items are complete.
  - b. As-built certifications shall be staffed by the contractor through 325 CES/CEIE for signature and forward to FDEP.
- D. Sanitary sewer and drinking water permits: The A-E shall bear full responsibility to accurately conceive, and design the proposed utility system and/or modifications to the existing system(s) based on acceptable practices for design as required by state and federal regulations.

#### **4.11.2.4 National Environmental Protection Act (NEPA)**

In the event that the government has prepared any NEPA Documentation, i.e. Environmental Impacts Statement (EIS), Environmental Assessments (EA), or a Finding of No Significant Impact (FONSI), the designer shall prepare the design so that it is entirely compatible with any and all requirements of the NEPA documents.

#### **4.11.2.5 Fuel Tanks**

For any new fuel tanks, the Storage Tank Manager (325 CES/CEIE) must approve prior to install to ensure that proper registration and coordination with State agencies is performed as needed.

#### **4.11.2.6 Air Quality**

- A. Contractor working on projects that involve the creation or changing, in any way, of an air pollution source located at Tyndall AFB shall coordinate with 325 CES/CEIE to modify the existing air operating permit or, for a new air source, apply for a construction permit. The cost of any fees involved shall be included in the design proposal.
- B. Air pollution sources include, but are not limited to, external combustion sources (boilers), internal combustion sources (gas, diesel, propane, natural gas – fired generators and other internal combustion driven types of equipment), woodworking shops, paint spray booths, fuel storage and dispensing operations, welding operations, abrasive cleaning, degreasers and emitters of ozone depleting substances and/or hazardous air pollutants (HAPS).

#### **4.11.2.7 Hazardous Waste**

- A. The Contractor shall identify, characterize, store and dispose of any hazardous waste generated during work in strict accordance with Federal, State and Air Force guidelines found in the Code of Federal Regulations and Florida's Administrative Code.
- B. The contractor shall comply with all provisions of 40 CFR 260 through 281 regarding the determination, generation, storage, and disposal of hazardous waste including conducting a hazardous waste determination on all wastes generated. The contractor shall stop all work in the event 325 CES/CEIE identifies noncompliance with federal and state regulations and shall correct any discrepancies immediately within 2 hours of notification. All hazardous waste shall be labeled and an inventory management system will be initiated to insure timely removal and proper disposal. Hazardous wastes will not be accumulated in excess of 55 gallons "at or near" the point in which the waste is generated. No on-base disposal will be allowed. If the contractor accumulates more than 55 gallons of hazardous waste, the drums shall be marked with the date they were filled and move to BLDG #6011 (Telephone # 850.283.4780) within three days of the fill date.
- C. All drums will be labeled with a hazardous waste label. The label shall include the proper DOT shipping name, UN or NA, EPA waste number, generator information, and accumulation start date. The label shall be placed on the side of the drum. All drums used to store hazardous waste shall be non-leaking and safe to handle. Contractor shall be responsible for over packing drums that are rusted, dented, or leaking. Drums and/or over-packs shall be provided by the contractor. All drums shall be "new" DOT approved containers.
- D. Hazardous waste transportation and disposal shall be coordinated through 325 CES/CEIE. The contractor shall be responsible for transportation and disposal of all hazardous waste at an EPA approved treatment, storage, disposal facility (TSDF). The transportation and disposal facilities shall be approved by 325 CES/CEIE prior to their use. Manifests shall be signed only by 325 CES/CEIE. Drums shall be disposed of within 90 days of placing the first drop in the container.
- E. Solid, Liquid, and Gaseous Contaminants: The Contractor shall be responsible for the proper disposal of all solid, liquid, and gaseous contaminants in accordance with all applicable Federal, State, and Local codes and regulations, as described elsewhere herein.
- F. Covered Chutes: All chutes for refuse, and the like, shall be covered or of such a design to fully confine the material to prevent dust dissemination.
- G. Management of Liquid Wastes: The contractor shall not dispose of any waste or residual material on the ground or in any storm sewer or drainage system. This includes but is not limited to paints, coatings, solvents, petroleum products, etc. Discharge of any material or diluted material into sanitary or industrial sewer systems shall be coordinated with the Base Environmental Element through the Contracting Officer, and shall be approved by the Base Environmental Element. Waste material for disposal shall be disposed of in accordance with Federal and State waste regulations and with local base policies. If in

doubt, consult with the Base Environmental Element, Tyndall AFB, through the Contracting Officer.

- H. Hazardous Chemical and Liquid Petroleum Products Spill Prevention: All hazardous materials and wastes shall be stored and handled in a manner to minimize the potential for spills. Liquid containers of 55 gallons or greater will be stored on or in a secondary containment compatible with the material being stored, and capable of containing the entire contents of the largest single container. (e.g. A secondary containment pallet capable of holding 60 gallons may have more than a single 55 gallon drum stored upon it.). Spill response materials and tools will be available in the immediate area to contain and control a spill. In the event of a spill every effort will be made to prevent the material from entering a storm water or sanitary sewer inlet. If the spill is a result of negligence or failure to adhere to these requirements the contractor will be solely responsible for the cost of cleanup and restoration of the area. Copies of the Spill Prevention, Containment and Countermeasures Plan (SPCCP) and the Hazardous Material Management Plan (HazMat) will be provided to the Contractor by the Contracting Officer upon request.

#### **4.11.2.8 Hazardous Material Inventory and Tracking**

- A. A letter of review from 325 CES/CEIEC Must be accomplished prior to commencement of work.
- B. The contractor shall submit TAFB Form 81 (Contractor Questionnaire) and TAFB Form 82 (Chemical Inventory) if applicable (within 10 duty days after the Notice to Proceed is issued), for review. The forms should be submitted to the 325 CES Hazardous Materials Office organization mailbox (325CES.hazmat@us.af.mil) and courtesy copy the 325 CONS organizational mailbox (325CONS.construction@us.af.mil).
- C. The Contractor should note that Tyndall AFB is required to report chemicals used such as (but not limited to) compressed gases, adhesives, aerosol cans, sealants, paints, lubricants, oils, cleaners, degreasers, pesticides, Fuels. Copies of manufacturer-specific Safety Data Sheets (SDS) must be attached to TAFB Form 82. These SDSs shall also be readily accessible at the location of each hazardous material.
- D. After submission, 325 CES/CEIE will notify the Project Manager and/or CONS of the reportable chemicals and of any special instructions. As directed by the CO, the Contractor is required to submit TAFB Form 83 (Reporting Entry Form) showing material usage monthly until completion of the contract. A letter from CEIEC will be accomplished with each submittal monthly and/or completion. The CO must be notified of any changes from the original submittal (i.e. new chemical is added, size of container or unit of issue changes or if the manufacturer changes), changes must be submitted using TAFB form 82. An up-dated letter of review indicating changes will



- be sent from CEIEC to the Contracting Office before the material can be brought onto the installation. Prime contractors shall be responsible to ensure all sub-contractors comply with this section.
- E. The contractor shall identify a single Point of Contact (POC) in writing to the HMMP. Submit changes in writing to the HMMP as they occur.
  - F. All containers will be labeled and the Contractor will provide the Environmental Element, the Fire Department, and Readiness Flight with a listing of all Extremely Hazardous Substances (as defined in 40 CFR Part 355, Appendix A), approximate volumes of petroleum based substances (i.e., lubricants, fuels, etc.) and hazardous materials as defined in 40 CFR Part 302.4. This information will be updated any time different materials are brought on base.
  - G. Hazardous material encountered by the contractor during work: The contractor shall notify the Contracting Officer upon encountering any material thought to be hazardous that was not generated by the contractor during the work. The Government shall be responsible for characterization, transportation, storage and disposal of the material if it is determine to be hazardous.
  - H. Burning: Burning of any type of materials will not be permitted to accomplish the work.
  - I. Disposal of waste water will be as specified below:
    - a. Waste water from construction activities, such as onsite material processing, concrete curing, foundation and concrete clean-up, water used in concrete trucks, forms, etc. will not be allowed 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 all Federal, State, Regional and Local laws and regulations.
    - b. For discharge of ground water, the Contractor will obtain a State or Federal permit specific for pumping and discharging ground water prior to surface discharging.

#### **4.11.2.9 Petroleum, Oils, & Lubricants (POL)/ Tanks**

Contractors with POL tanks must maintain a maintenance log, reconciliation records and also ensure secondary containment valves are closed. Employees must have proper training for spill cleanup and response. Contractor shall ensure all areas are free of spill residues. Tyndall AFB's Environmental Compliance POL/Tank Program Manager can be reached at 283-4486.

#### **4.11.2.10 Recycling**

Executive Order 13834 directs all Federal agencies to recycle. All recyclables metal, wire, paper products, cardboard, aluminum, should be turned in to the Tyndall AFB Recycling Center, 283-2267. The recycling center can provide collection receptacles if project generates a large amount of scrap metal.

#### **4.11.2.11 Storage**

Storage areas for material designated for reuse or recycling should be coordinated with the CES Program Manager and the 325 CES/CEIEC Solid Waste Manager. The contractor is responsible for the disposal of solid waste generated for this project and must be managed in accordance with AFMAN 32-7002 and the Tyndall AFB Installation Solid Waste Management Plan.

#### **4.11.2.12 Digging / Excavation**

Prior to any digging an excavation permit is required. An Air Force Form 103, BCE Work Order Request, will be required to ensure that there are no cultural/natural resources or contaminant sites impeding the work. If during excavation any petroleum odors are detected, please contact CEIE immediately so that proper screening can be coordinated.

#### **4.11.2.13 Lead & Asbestos**

Any project that requires abatement of asbestos containing material or lead base paint must be performed by a State of Florida Certified Contractor. A 10-day notification must be submitted to Florida Department of Environmental Protection for demolition of any structure and/or abatement of a regulated amount of asbestos containing material. Copies of the submittal must be provided to the Asbestos Program Manager.

#### **4.11.3 Recording and Preserving Historical and Archaeological Finds**

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

**4.11.3.2** Archaeological monitoring is required for all ground-disturbing activities, including, but not limited to, removal of below grade slab/concrete foundation, sidewalks and other associated pavement, and underground utilities. The archaeologist will be a contractor on site from 325 CES; contractor must verify they are there before any digging is completed. All ground-disturbing work shall cease and 325 CES shall be contacted if human remains, archaeological deposits, or paleontological remains are encountered at any point during the project.

#### **4.12 PROJECT DATA / PROJECT DELIVERABLES – NOT APPLICABLE**

##### **4.12.1 Protecting Unclassified DoD Data – Not Applicable**

##### **4.12.2 Security Breach Notification – Not Applicable**

##### **4.12.3 Data Collaboration Site – Not Applicable**

#### **4.13 HEALTH AND SAFETY PLAN (HSP) OR (APP)**

- A. See section 5.8, General Safety Requirements.
- B. The Superintendent cannot be dual hatted with the Safety Officer. The Safety office can be dual hatted with the Quality Manager.

#### **4.14 QUALITY SYSTEM PLAN (QSP)**

The Contractor is responsible for quality control and shall establish and maintain an effective quality control system in compliance with FAR Clause, 52.246-12, Inspection of Construction. The quality control system shall consist of plans, procedures, and organization necessary to manage all delivery orders to produce end products which comply with the contract requirements. The system shall cover all construction operations, both on site and off site, and shall be keyed to the proposed construction sequence. The Government will hold the project manager responsible for the quality of work on the job and is subject to removal by the CO for non-compliance with quality requirements specified in the contract.

#### **4.15 TECHNICAL PLANS AND REPORTS**

The contractor shall provide technical plans, specifications, and reports as defined below and implemented at the Project level.

##### **4.15.1 Construction Work Plan**

The Contractor shall prepare a Construction Work Plan.

##### **4.15.2 Technical Reports – Not Applicable**

#### **5.0 PROSECUTING THE WORK**

- A. Roles and Responsibilities
  - a. Key personnel for this project include the CO, COR, Government Project Manager, Government Inspector, and CxA.

- b. Contracting Officer: The CO is the Government's sole contract decision maker, within the limits of his/her warranted authority. No other entity may legally obligate the Government or direct the Contractor to take action, or cease from performing contracted work in non-emergencies. The CO is the Authority Having Jurisdiction for all issues related to the contracted work. The CO receives, processes, and renders judgment on the RFI's that the Contractor may submit. The CO negotiates the terms of the contract, and any modifications to the contract. The CO is the approval authority, who determines whether and when contract requirements have been met prior to authorizing payment to the Contractor. The CO is assisted by a team of individuals who may include a COR and Contract Administrators. The CO operates in accordance with laws, including the Federal Acquisition Regulation (FAR).
- c. Contracting Officer's Representative: The COR assists the CO by monitoring and recording the Contractor's contract performance on a day-to-day basis, and by providing information, which the CO uses to make decisions. The COR is not empowered to obligate the Government or to direct the Contractor for other than emergency situations, such as those that may impact the safety of personnel. Communication between the COR and the Contractor will be frequent. The COR will often visit the project site throughout the period of performance. The COR may or may not also fulfill the roles of the Government Project Manager and/or the Government Inspector.
- d. Government Project Manager
1. The Government Project Manager (PM) is a caretaker, problem solver, and recommender for the project, throughout all of its phases from conceptualization to facility occupancy/usage, and often beyond. In representing the interest of the Government, he/she facilitates communication and coordination among all of the project's stakeholders in order to ensure that the project achieves its objectives. He is aware of the project's needs and requirements. The PM possesses relevant technical expertise. The PM is a key reviewer of submittal documents, and serves as a technical advisor to the CO.
  2. Any review by the Government of technical items shall not be construed to relieve the Contractor of the responsibility for producing technically correct and complete documents in compliance with applicable codes, regulations, industry standards, and the contract.
- e. Government Inspector: The Government Inspector is primarily involved with the project during its construction and close out phases. He/she normally spends significant amounts of time reviewing, recording, and reporting the details of the project's progress during daily visits to the construction site. He/she either fulfills the duties of the COR and the PM or works closely with those individuals. While the Government Inspector will frequently perform inspections, only the CO is empowered to actually accept or reject the Contractor's work.

- f. Commissioning Agent: The CxA shall be a certified, experienced, proficient third party professional.

## **5.1 SITE WORK**

- A. See Appendix A for work scope.
- B. The Contractor shall be responsible for all professional services, A/E design, permits, equipment, labor, tools, materials, and ancillary items necessary to complete the tasks defined by the SOW, including the disposal of all resulting waste materials and project clean up. The performed tasks shall be based on the project description, other data furnished in this SOW, and information covered during kick-off meeting.

### **5.1.1 Conservation – Not Applicable**

### **5.1.2 Site Preparation**

#### **5.1.2.1 Site Control**

- A. Use construction fencing, and barriers to isolate and secure the construction site as needed based on abatement and security requirements. Provide fence screening, durable sand bagging, and conduct ongoing daily site inspections/housekeeping, and other approved measures to prevent the release of foreign object debris (FOD) outside of the construction site. Use appropriate measures to prevent soil erosion, landscaping degradation, or damage to areas adjacent to the construction site. At a minimum, the contractor shall employ best management practices consistent with the Florida Development Manual, Chapter 6, Storm-water and Erosion and Sediment Control Best Management Practices for Developing Areas.

#### **5.1.2.2 Utilities (Existing)**

- A. The Contractor shall contact the base utilities Contractor (TECO Gas and GCEC) for drawings for the base electrical, water, and natural gas systems. All other utilities drawings can be obtained on request through 325<sup>th</sup> CES. The Contractor shall familiarize himself with drawings and coordinate all connections with the base utilities Contractor.
- B. Any utility line shown on the record drawings (or made known to the Contractor) and damaged during construction work shall be repaired immediately by the Contractor at no cost to the Government.
- C. Any utility line shown on the record drawings (or made known to the Contractor) and damaged during construction work shall be repaired immediately by the Contractor at no cost to the Government.

### 5.1.2.3 Locates

- A. It shall be the Contractor's responsibility to verify the exact location, character and depth of any existing utilities, communication lines, electrical components, structures, etc. The Contractor is responsible for contacting the appropriate utility POC's for TAFB's privatized utilities and scheduling terminations for this project and all associated costs with those entities. The Contractor shall request referenced locations and permit at least 10 days prior to scheduled work begin. The Contractor shall exercise due care and take reasonable steps to avoid injury or to otherwise interfere with lines where positions have been provided. The Contractor shall hand dig only, within 5 feet in any direction of a located utility. If sufficient information is not available, the Contractor shall explore prudent techniques, such as hand-dug test holes, to ascertain the precise location of such facilities. The Government will hold the Contractor liable for repairing any damages caused by work under this contract at no additional cost to the Government.
- B. Contractor shall obtain a blank AF Form 103a, BASE CIVIL ENGINEERING WORK CLEARANCE REQUEST from 325 CES Customer Service, 283-4949, prior to any construction activities. Contractors shall request a BASE CIVIL ENGINEERING WORK CLEARANCE REQUEST at least 10 working days in advance.

### 5.1.2.4 Outages:

- A. Definition: Utility outages shall be defined as a stoppage in electric, gas, potable water, sewer, chilled or hot water, steam, telephone, Energy Monitoring and Control System (EMCS), or any other similar utility whether serving all or a part of a single facility or of several facilities.
- B. In the event utility outages are required, they shall be coordinated with the CO and COR. Notice of the necessity for an outage shall be provided by the Contractor to the CO, in writing, not less than 14 working days prior to the time of the required outage and written approval for the outage will be issued by the Contracting Officer. All work shall be coordinated and arranged to ensure that the outage will be of minimum duration.
- C. Restoration: Once a utility outage is arranged and work begun, work shall continue until all utilities are restored to the affected facility or facilities.
- D. Cancellation: In the event a scheduled utility outage is cancelled by the Government, notification will be given to the Contractor at least 24 hours in advance of the time for the outage to start. Rescheduling of a cancelled outage must be coordinated with written notification as described above.

### 5.1.3 Demolition

- A. Perform awarded tasks as defined in Appendix A, Scope of Work.

- a. Protect work area with barricades, warning tape, signs and/or other appropriate methods for the work being completed to ensure the safety of pedestrians and personnel;
  - b. Remove and dispose of all demolition and general construction debris from the site (off base);
  - c. Perform ancillary efforts required to complete the work in order to provide clean, complete and functional facility meeting the standard of quality for each trade utilized;
  - d. Limit disturbance to the natural vegetation, wildlife and base activities to the greatest extent practicable.
- B. Salvageable Materials: Contractor shall turn in salvageable goods to the appropriate base agency. The Contractor shall separate and turn in recyclable materials to the Base Recycle Center, building 6035, in accordance with base policies. Precious scrap and waste metals (e.g. steel, iron, etc.) shall be recycled and/or disposed in accordance with base policies. The Contractor shall reimburse the Government for any remediation undertaken to clean up releases by the Contractor and for any civil or criminal fines or penalties for any environmental infraction caused by the Contractor. The Contractor shall comply with all provisions of 40 CFR 260 through 281 regarding the generation, storage and disposal of hazardous waste. The Contractor shall submit a hazardous waste management plan to Contracting Officer for approval by 325 CES/CEI. The Contractor shall not commence any work until this approval is obtained. The Contractor shall stop all work in the event 325 CES/CEI identifies non-compliances with federal or state regulations and shall correct any discrepancies immediately within 2 hours of notification by 325 CES/CEI.
- C. Disposal of Materials: All waste materials generated by any work under this contract shall become the property of the Contractor and shall be handled, transported, stored and disposed of off-base by the Contractor. Such material shall be hauled OFF BASE to a Contractor selected disposal area and disposed of in accordance with applicable Florida Administrative Code 62-701, federal, state and local laws, ordinances, regulations, court orders or other type of rules or rulings having the effect of law. The Contractor shall provide CO the waste manifest tickets for all disposal runs associated with the abatement project.
- D. Site Excavation and Restoration: All excavations other than building foundations, must have site restoration (sod, hydro-mulch, pavement or other scheduled restoration), completed within 14 days (excluding approved rain delay days) after excavation has been initiated.

## 5.2 CONSTRUCTION OPERATION SERVICES – NOT APPLICABLE

## 5.2.1 Construction

- A. Upon approval by the CO for all preconstruction submittals, applicable permits, and construction documents; the Contractor may commence on-site construction activities. The Contractor shall conform to all specifically referenced and otherwise applicable requirements during performance of the work as described in the SOW.
- B. The Contractor shall perform a full range of activities to meet all engineering and other construction requirements as described. Requirements include construction, completion of conceptual design and construction, demolition, decommissioning, and emergency response for traditional engineering and construction needs. All completed designs shall be signed and sealed.
- C. The Contractor shall execute engineering tasks as required during construction. The Contractor shall plan, develop cost estimates, perform scheduling, install, construct, and test IAW this project's requirements.
- D. The Contractor shall perform incidental support such as designing, planning, programming, scoping, studying, investigating, evaluating, and consulting on traditional engineering and construction efforts.
- E. The Contractor shall also provide training and operational support to Government and other Contractor personnel regarding the operations and maintenance of equipment, systems, and facilities. The Contractor shall provide operation and maintenance of equipment and systems during both construction phases and the commissioning period prior to acceptance by the Government.
- F. Mobilization: Mobilize equipment, labor, tools, materials, and ancillary items necessary to complete the work defined in the SOW.
- G. Government furnished equipment: NONE
- H. Weapons bunkers are excluded from contract. NO unauthorized entry into these spaces is allowed in any circumstances. Request to enter these spaces must be submitted in writing.
- I. It may be necessary to initiate limited construction activities (such as ordering long lead time major components) prior to acceptance of the completed design. Prior to the completion of the 95% it may be acceptable for the contractor to order materials and equipment. But this shall be contingent on the Contractor obtaining CO approval.
- J. Within the time listed in Table 1 of approval of the corrected 95% Design, and IAW the approved Construction Schedule, the Contractor shall commence all remaining construction tasks, as denoted by the mobilization of personnel and equipment to the construction site, and daily progress in accordance with the approved Construction Schedule.



- K. The completion of the full design may include but is not limited to the following: drainage, sidewalks and entryway pavements, parking lot pavements, pavement marking, perimeter fencing, facility structural evaluation, support columns, architectural finishes, brick work, administrative area roof replacement, exterior panels, coatings and paints, exterior lighting, door and doorframe replacement, communications devices, facility HVAC, exterior HVAC equipment replacement and mechanical plant installation, cameras, intrusion detection and access control. In all cases, construction shall only proceed upon approval of the CO.
- L. Within the time listed in Table 1 of approval of the corrected 95% Design, and IAW the approved construction schedule, the Contractor shall commence all remaining construction tasks, as denoted by the mobilization of personnel and equipment to the construction site, and daily progress in accordance with the approved Construction Schedule.
- M. It may be permissible to initiate limited construction activities (such as ordering long lead time major components) prior to acceptance of the completed design, but this shall be contingent on the Contractor obtaining approval to do so. The Contractor shall schedule, give 5 working days' notice prior to, then physically attend a Pre-Construction Meeting located at TAFB. At least one member of the Contractor's on site team having supervisory responsibilities shall attend the Pre-Construction Meeting. The meeting will facilitate construction phase ongoing coordination and communication between key stake-holders and the Contractor necessary for a successful construction project.
- N. The Contractor shall accomplish construction tasks in accordance with the submitted and approved Construction Schedule.

### **5.2.2 Inspections**

- A. Inspection Acceptance
- a. Pre-final inspection, and final inspection acceptance shall be completed by the Contractor with the following additional provisions:
1. The Contractor shall give the Government a minimum of five (5) working days' notice for all requested inspections. Shorter notifications may impact being granted access or completion of the inspections.
  2. The Contractor shall make sure that the work is ready for all inspections. The presence of an unreasonable number of deficiencies, as determined by the Government Inspector, may cause the inspection to be rescheduled and re-accomplished.

3. The pre-final inspection date shall be determined by joint agreement of the parties. Any discrepancies noted during the pre-final will be corrected within (5) working days. If the Contractor's Quality Control (CQC) manager determines that the discrepancies have been corrected, a final inspection may then be requested.
4. The Contractor shall notify the COR in writing five (5) working days in advance for a final inspection, and shall provide a copy of all operation and maintenance manuals and extended manufacturer/material warranties to the Government before the final inspection.
5. Pre-final and final inspections and any correction of deficiencies shall be accomplished within the period of performance.

#### **5.2.2.1 Pre-Final Inspection**

The Contractor shall conduct a pre-final walk through inspection with Base personnel and publish the pre-final inspection findings in a pre-final inspection (punch list) report for each of the project tasks. The Contractor shall include a draft DD Form 1354, Transfer and Acceptance of Real Property to the COR for review for each project task.

#### **5.2.2.2 Final Inspection**

The Contractor shall conduct a final inspection with base personnel and publish the findings in a final inspection report for each project task. The inspection shall concentrate on the items identified at the pre-final inspection and recorded in the pre-final inspection (punch list) report. A final inspection shall not be performed until the pre-final inspection (punch list) report has been resolved. At the final inspection, the Contractor shall present a completed DD Form 1354, Transfer and Acceptance of Real Property to the BCE or other appropriate organization for signature and acceptance, if required.

#### **5.2.3 Delivery and Warranty**

- A. The Contractor shall complete all inspection and commissioning requirements prior to final inspection. Following final inspection, the Contractor shall deliver to the Government the warrant documentation. The warranty shall be issued in accordance with FAR 52.246-21.
- B. Facility Commissioning
  - a. A CxA is not required for the RFP process.
  - b. 3rd Party certification is required for items such as LPS, Fire Protection, and some HVAC systems.
- C. Training

- a. The Contractor shall conduct both Operator Training and Maintainer Training once all installed systems are operational in accordance with an approved Training Plan.
  - b. The Contractor shall formally train both operations and maintenance personnel in the use and care of the facility systems, which they were responsible for constructing or installing. Training shall be conducted on the project site whenever feasible. The Contractor shall provide “Manufacturer Authorized” training sufficient for TAFB users to obtain certification in the operation, care, maintenance, and/or repair of the installed system(s) whenever the manufacturer(s) offers such training and/or certification. If “Manufacturer Authorized” training is not available, the Contractor shall devise and conduct training, ensuring that training sessions include a means to evaluate the effectiveness of the offered training. Written and recorded quizzes, tests, and training evaluation surveys may be acceptable ways of evaluating training effectiveness, in addition to other methodologies.
  - c. The Contractor shall be responsible for all training support materials and for the logistics associated with training sessions. Training documents to include training agendas, training schedules, training outlines, training manuals, training videos, product manuals, and the like shall be submitted to the CO for approval in electronic format within the time listed in Table 1 in advance of training events. Hard copies shall be provided for the individuals who will physically attend training sessions. Electronic copies on computer discs of training materials shall be provided for attendees, in addition to hard copies.
  - d. Following training, class rosters of those who attended shall be submitted electronically to the CO. The Contractor shall also submit training effectiveness records for those who attended any training sessions. The Government reserves the right to perform audiovisual recording of training sessions for future use in conducting refresher training of existing personnel and/or for initial training of incoming personnel. All training documents and records are required project close out submittal documents.
- D. The Contractor shall provide both electronic and hard copy versions of O&M manuals at least to the time listed in Table 1 prior to conducting training sessions. Hard copy versions of O&M manuals shall be bound in high quality hard cover binders with dividers separating the various sections. Hard copy versions of O&M manuals shall include computer discs containing the electronic versions of those manuals.
- E. O&M manuals shall be configured to provide ready access to information needed to operate and maintain the facility for years, likely decades, to come. As the important continuity documents that they are, they should summarize the project; describe what was constructed and/or installed; provide equipment schedules, schematics, diagrams, and pictures; include catalog cut sheets; include manufacturer’s product manuals; list start up, operations, shut down, user-level disassembly/reassembly, and repair procedures; as well as include all information necessary to obtain warranty service during the 12 month

general warranty period, and any manufacturer warranty periods. O&M manuals shall include clear and readable pictures of equipment data plates for all installed equipment.

- F. O&M manuals are required project close out submittal documents.

### **5.3 DEMOBILIZATION**

- A. The contractor shall decontaminate equipment and facilities, decommission facilities as necessary, and restore the site back to its pre-project condition or as directed in the TO. The contractor shall remove any temporary facilities and implement erosion control measures such as seeding, mulch, sodding, and erosion control fabrics; restore roads, structures and utilities; and plant trees, shrubbery, grasses and other vegetation. The contractor shall document and report on activities and train Government personnel to perform required maintenance, as requested in each Project (See Appendix B).
- B. The contractor shall abide by FAR 52.245-1 Government Property and Defense Contract Management Agency (DCMA) instructions pertaining to disposal of Government Property and reporting through the Plant Clearance Automated Reutilization Screening System (PCARSS) in the removal and disposition of any Government Property during the Demobilization from the project site.

### **5.4 EMERGENCY RESPONSE**

See Section 5.8

### **5.5 MAINTENANCE AND REPAIR**

See section 5.2.1E

### **5.6 ORDNANCE REMOVAL AND SUPPORT- NOT APPLICABLE**

### **5.7 SECURITY REQUIREMENTS**

- A. MIL-HDBK-1013: DOD Military Handbook Design Guidelines for Physical Security of Facilities
- B. AFI 31-101: Air Force Instruction 31-101: The Air Force Installation Security Program
- C. DOD 5200.1.R, Department of Defense 5200.1.R: Information Security Program Construction Standards.
- D. UFC 4-010-01 Unified Facilities Criteria Antiterrorism Standards for New and Existing Facilities

- E. Weapons bunkers are excluded from contract. NO unauthorized entry into these spaces is allowed in any circumstances. Request to enter these spaces must be submitted in writing.

## **5.8 GENERAL SAFETY REQUIREMENTS**

- A. Workplace: Provide a safe and healthful workplace for employees and the general public while performing the contract work.
- B. Personal Protective Equipment: Supply each employee with personal protective equipment. This equipment includes but is not limited to protection for the eyes, face, head, ears and extremities. Use the proper protective equipment for the work performed.
- C. Roads: Obey the posted base speed limits. Wear Seat belts on base in accordance with AFI 91-207.
- D. Accidents: Report Contractor accidents involving injury to Air Force personnel or damage to Government property to the Base Law Enforcement Desk and the CO.
- E. Safety Regulations: Familiarize yourself and comply with the general safety requirements in accordance with DOL regulations, OSHA 29 CFR Part 1926, and AFI 91-202.

## F. Required:

STANDARD	SECTION	SUBJECT
OSHA 1910	.132	Personal Protective Equipment
OSHA 1910	.215	Explosives
AFM 91-201		Explosives Safety Standard
OSHA 1926	Subpart H	Material Handling
OSHA 1926	Subpart O	Mechanized Equipment
OSHA 1926	Subpart Q	Concrete Forms
OSHA 1926	.850	Demolition
OSHA		Asbestos and PPE
1910	.1001	
1926	.58	
OSHA		Ladders
OSHA		Welding, Cutting, Brazing
OSHA		Confined Spaces
NEC		Electrical Work
1926	Subpart P	Trenching
1926	.202, .203	Barricades
OSHA		Confined Space Entry
1925	.461	Scaffolding

G. OSHA Inspections: The Contractor shall be subject to no-notice inspections under OSHA program by inspectors of the Department of Labor.

H. Protection and Maintenance of Traffic: During construction the Contractor shall provide access and temporary relocated paths as necessary to maintain traffic if required. The

Contractor shall maintain and protect traffic on all affected roads/pedestrian paths during the construction period except as otherwise specifically directed by the CO. 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 and the work, and the erection and maintenance of adequate warning, danger, and direction signs, shall be as required by the State and local authorities having jurisdiction. The traveling public shall be protected from damage to person and property. The Contractor's traffic on roads selected for hauling material to and from the site shall interfere as little as possible with public traffic. The Contractor shall investigate the adequacy of existing roads and the allowable load limit on these roads. The Contractor shall be responsible for the repair of any damage to roads caused by construction operations.

- I. Barricades: The Contractor shall erect and maintain temporary barricades to prevent public access to hazardous areas as required by OSHA, Florida Department of Transportation, and/or like Agencies. Such barricades shall be required whenever safe public access to paved areas such as roads, parking areas, sidewalks or other work areas are prevented by construction activities or as otherwise necessary to ensure the safety of both pedestrian and vehicular traffic. The minimum required number of barricades shall be securely placed in a neat and orderly fashion, clearly visible with adequate illumination to provide sufficient visual warning of the hazard during both day and night. Barricades shall be maintained in an orderly fashion during the duration of their placement.
- J. Severe Weather: Upon receipt by the CO of a severe weather warning with anticipated winds of 35 knots or higher or lightning within 5 miles of Tyndall, the following sequence of actions shall be carried out:
  - a. The CO or the Contracting Officer's Representative (COR) will notify the Contractor of the severe weather warning.
  - b. The CO or the COR will instruct the Contractor to secure all materials and equipment.
  - c. The Contractor shall take immediate action to tie down, remove, protect, and/or secure construction materials, equipment and refuse to the satisfaction of the Air Force inspector in order to reasonably assure that Government property will not be damaged. If the Contractor fails or refuses to secure materials and equipment to the satisfaction of the Air Force Inspector, the work will be accomplished by Air Force personnel and the cost thereof charged to the Contractor.
  - d. Fire Regulations and Preventative Practices: The Contractor shall comply with fire prevention practices as set forth by the National Fire Protection Association (NFPA), other recognized fire prevention agencies, and base regulations.
  - e. Explosive Operated Hand Tools: The Contractor shall comply with OSHA Standard 1910.215(c) when utilizing explosive operated hand tools. Storage of explosive

- cartridges on the installation shall be in metal containers and limited to one days supply. The Contractor shall provide adequate controls to prevent loss/theft of cartridges used and stored on the installation.
- K. Welding: Welding shall not be performed without first obtaining a welding permit issued by the Base Fire Department.
- L. Employers should have a written Emergency Action Plan (EAP), as outlined in 29 CFR 1910.38 or 29 CFR 1926.35. The EAP should include a written lightning safety protocol for outdoor workers.
- M. Lightning: When thunder roars, go indoors! If you hear thunder, even a distant rumble, get to a safe place immediately. Thunderstorms always include lightning. Any thunder you hear is caused by lightning! NOAA advises that nowhere outside is safe when thunderstorms are in your area. National Lightning Safety Institute, [lightningsafety.com](http://lightningsafety.com)
- a. The national weather service (NWS) provides lightning reports with a phone call when lightning strikes within 8 miles of the airport and, then again when lightning strikes within 5 miles of the airport, then an auditory warning is signaled. “ACRP Report 8: Lightning- Warning Systems for Use by Airports (2008)”
  - b. PLAN in advance your evacuation and safety measures. When you first see lightning or hear thunder, activate your emergency plan. Now is the time to go to a building or a vehicle. Lightning often precedes rain, so don't wait for the rain to begin before suspending activities.
  - c. IF OUTDOORS...Avoid water. Avoid the high ground. Avoid open spaces. Avoid all metal objects including electric wires, fences, machinery, motors, power tools, etc. Unsafe places include underneath canopies, small picnic or rain shelters, or near trees. Where possible, find shelter in a substantial building or in a fully enclosed metal vehicle such as a car, truck or a van with the windows completely shut. If lightning is striking nearby when you are outside, you should:
    1. Crouch down. Put feet together. Place hands over ears to minimize hearing damage from thunder.
    2. Avoid proximity (minimum of 15 ft.) to other people.
  - d. IF INDOORS... Avoid water. Stay away from doors and windows. Do not use the telephone. Take off headsets. Turn off, unplug, and stay away from appliances, computers, power tools, & TV sets. Lightning may strike exterior electric and phone lines, inducing shocks to inside equipment.
  - e. SUSPEND ACTIVITIES for 30 minutes after the last observed lightning or thunder. Remain in the shelter for at least 30 minutes after hearing the last sound of thunder



- f. INJURED PERSONS do not carry an electrical charge and can be handled safely. Apply First Aid procedures to a lightning victim if you are qualified to do so. Call 911 or send for help immediately.
- g. KNOW YOUR EMERGENCY TELEPHONE NUMBERS AVOID the following locations: the high elevations; bare ground; metal; water; solitary trees; open fields; electrical equipment and other conductors. When hopelessly isolated, separate people a min. distance of 15 m (50 ft) to reduce multiple injuries.

### 5.8.1 Special Provisions for Working on or Near the Airfield or Airfield Hangars

The following provisions apply when work is required to take place on the active airfield/hangar, or within the clear zones or primary surfaces as defined by AFI 13-213, Airfield Management and UFC 3-260-01, Airfield and Heliport Planning and Design, Appendix B Best Practices, Section 14 Construction Phasing plan and Operational Safety on Airfields during construction. Requirements for working on or near the airfield will take precedence over other safety precautions.

- A. Closures: All runway, taxiway and hangar closures will require the coordination of Airfield Management through the Contracting Officer not less than 60 calendar days prior to the requested closure, unless otherwise. The Contractor will make the maximum utilization of time during the requested closure period. The Contractor will notify the Contracting Officer when he is finished with the work requiring the closure. The Contractor will schedule his operations in phases if necessary so as to minimize the effect of his construction closures on normal airfield operations.
- B. Coordination of Work:
  - a. The Contractor shall coordinate with the Contracting Officer before initiating any work and will notify them of the proposed location of work and time of operation. Prior to starting work in Controlled or Restricted Area, the contractor shall request a "Temporary Construction Waiver" and "Free Zone Waiver" from the Contracting Officer through the 325 CES/CENPM. Contractor shall abide and implement the requirements and stipulations contained within the approved Temporary Construction Waiver. Refer to Section 01 55 01 Security Requirements for additional guidance.
  - b. Contractor vehicles shall be allowed access to flight line if required for the performance of work pending the following:
    - 1. Permission must be requested by the Contractor, through the Contracting Officer prior to operating any vehicles.

2. Each vehicle shall have a company sign (minimum size 6 inches by 18 inches) on both front doors and all personnel shall have AF identification cards, and supplier vehicles delivering materials to the site shall be escorted by a company vehicle.
  - c. The contractor will ensure all personnel operating a vehicle on the airfield receive the mandatory drivers training from AMOPS in accordance with AFI 13-213 Airfield Driving. Pending successful completion of the training course a temporary Tyndall AFB AF IMT 483 will be issued.
  - d. The contractor will be responsible coordinating with AMOPS at the beginning and end of each work day. AMOPS will advise the Tower when the contractor's activities will be proceeding to the construction site. Contractor must have a VHF Radio on site and maintain radio contact with AMOPS and Tower at all times.
  - e. The contractor shall submit a written request for the use of crane equipment at least 60 calendar days prior to the use of said equipment to the Contracting Officer to for processing through 325 CES/CENMP, Airfield Management (AMOPS) and the FAA. The request shall contain the dates of use, the height of the equipment, and the location of use. Requests covering a block of time may be submitted with the understanding that the time for FAA review may be longer than normal. Time frames of a week or less are considered normal.
  - f. Two-way radio contact on VHF Radio is required for all vehicles, equipment and personnel working on the flight line, taxiways and runways. AMOPS will provide a single radio when available; contractor will be responsible to provide all other. In the event radios are not available by AMOPS, the Contractor shall be responsible for providing all radios. The contractor shall be responsible for coordination frequencies with Base Operations and Tower.
- B. Personnel Safety Precautions: Aircraft and support equipment operating in/near hangars, on/near the runways, taxiways, and aprons make the area of construction a zone of high level noise. The Contractor shall take the necessary precautions, such as the use of earplugs or muffs to prevent injury to the auditory systems of all personnel working in the area. Additional guidance is located within UFC 3-260- 01 Appendix B Best Practices, Section 14.
- C. Restrictions:
- a. No Contractor vehicles, equipment, or personnel shall be on or crossing any active runway or taxiway, except during construction period closures as outlined herein or when clearance is requested from and granted by the control tower. All Contractor vehicles operating within the airfield environment or operating on the landing areas (1,000 feet on either side of the runway center line) must obtain Airfield driving training from Airfield Management prior to work on the airfield. All vehicles driving within the Controlled Movement Area (Taxiways and Runway) will be identified by

- mounted electric battery operated low intensity, yellow or amber flashing lights. When contractor operations require them to cross an active runway or other controlled area on a regular basis, they shall furnish a two-way radio in order to maintain contact with the control tower. The Government will provide the Contractor with the correct frequency. Use of the government provided radio frequency for other purposes will be strictly prohibited.
- b. No Contractor vehicles, equipment, or personnel shall be allowed within a Restricted Movement Area without an escort available for the full duration all vehicles, equipment, or personnel are within the Restricted Movement Area. At no time will personnel be allowed to enter the Restricted Movement Area without an escort with a Restricted Area Badge (RAB) with escort privileges and for that particular Restricted Area, which Contractor vehicles, equipment, or personnel will be located. Contractor's responsibility to provide escorts and should be reflected in the task order cost proposal. The government will not provide personnel to serve as Restricted Movement Area escorts.
- D. Cleanliness of Work Area: The Contractor will be required to maintain cleanliness of all work areas at all times during progression of work in order to alleviate foreign object damage (FOD). The Contractor will be required to remove all materials and equipment to a safe distance from the runway or aircraft parking area at the close of each day's work. This distance will be determined by the Contracting Officer in coordination with Airfield Management. The Contractor will not be allowed to stockpile any materials or store any equipment within the airfield primary surfaces. Designated areas will be provided by Airfield Management.
- E. Emergencies:
- a. There may be periods of time when the Contractor, due to declared aircraft emergencies, will be required to vacate the work site and move their personnel and equipment a distance of several hundred feet away from the work site. Such removals, when ordered, will be given on short notice and expeditious action will be required. Whenever the Contractor is required to clear the work area, the Contractor accompanied by the inspector or Air Force representative will make an inspection sweep of the entire area to ensure all tools, equipment, and personnel have been removed from the runway, active taxiway or hangar, and that the area is available for landings or parking.
- b. The Contractor shall comply with Air Force safety standards during weather warnings. Upon receipt by the Contracting Officer of a severe weather warning, the Contracting Officer or designated representative will notify the contractor of weather and will instruct the contractor to secure all materials, equipment and trailers. The contractor will immediately secure, remove, or protect the materials and equipment to the satisfaction of the Contracting Officer or designated representative. If the contractor fails or refuses to secure, remove, or protect the materials and equipment to

the satisfaction of the Contracting Officer or designated representative, the work will be performed by the Government and the cost thereof charged to the contractor.

## **5.9 GENERATED REFUSE**

- A. Refuse: The Contractor shall take positive action to prevent work-generated refuse from entering the sewer system and water bodies. All Contractor generated refuse and waste shall be hauled from the construction site to a disposal area located outside the physical boundaries of the installation. This refuse and waste material shall be hauled in with tight-fitting beds and covers to prevent spillage on roadways and waterways. The construction site shall be kept neat, orderly, and safe for workmen at all times.
- B. All waste materials other than uncontaminated recyclable metals generated by any work under this contract shall become the property of the Contractor and shall be handled, transported, stored and disposed of off-base by the Contractor at the end of each day's work. Such material shall be hauled OFF BASE to a Contractor selected disposal area and disposed of in accordance with applicable Florida Administrative Code 62-701, federal, state and local laws, ordinances, regulations, court orders or other type of rules or rulings having the effect of law. The Contractor shall provide the CO with the waste manifest tickets for all disposal runs associated with the project.
- C. Salvageable, goods shall be turned in to the appropriate base agency. The Contractor shall separate and turn in recyclable materials to the 325th Services Squadron Recycling Facility, building 6035, in accordance with base policies. Precious scrap and waste metals (e.g. steel, iron, etc.) shall be recycled and/or disposed in accordance with base policies. Refer to section 5.1.3.B for additional details.

## **6.0 FACILITY CONSTRUCTION PROJECT DELIVERY METHODS**

The Contractor shall provide their own office space.

### **6.1 DESIGN BUILD (D-B)**

- A. The D-B Contractor shall be staffed sufficiently to perform acceptably as both the DOR and the Constructor for this contract.
- B. Design services shall develop design documents which identify the necessary requirements for the development of the design. Design documents shall include working drawings, specifications and O&M manuals.
- C. The Contractor shall provide the manpower, equipment, material, services, and transportation necessary to ensure oversight services throughout accomplishment of this construction project. It is the responsibility of the Contractor to establish and maintain open communications between salient authorities associated with accomplishment of this project.

- D. The personnel assigned to the building may be occupying a large portion of the building during the design and construction phases. The contractor will be expected to coordinate closely and with ample lead time any requests for the user to relocate or suspend their mission inside the building. As part of the proposed effort for this DB, the Contractor shall implement means and methods that will limit disturbance to the base activities to the greatest extent practicable during the design-build project duration.
- E. The construction documents provided by the design team shall thoroughly define the renovation effort and meet the standard of quality typical of the professional design industry. Construction efforts shall be in strict accordance with the approved “for construction” design documents. The Contractor shall verify quantities and locations for all materials associated with the effort. The Contractor shall provide all labor, materials, and equipment required to design and construct this project.
- F. Lightning Protection Requirement: Lightning Protection System (LPS) shall be designed and installed IAW the following references:
- a. AFI 32-1065                      Grounding System
  - b. NFPA 780                         Standard for the installation of Lightning Protection System
  - c. UFC 3-575-01                    Lightning and Static Electricity Protection System
  - d. UL 96                              Lightning Protection Components
  - e. UL 96A                            Installation Requirements for Lightning Protection System
  - f. UL 467                             Grounding and Bonding Equipment
  - g. NFPA 70                          National Electric Code.

#### **6.1.1                      Designers of Record (DOR) / Design Project Manager (PM)**

- A. The professional registrations of other US States and territories shall be acceptable, in cases where the State of Florida has previously established regulatory reciprocity with those US States and territories for the purpose of officially recognizing those registrations. It shall be the responsibility of the Contractor to provide documentary evidence of professional registration, and State of Florida recognition of such registration, as applicable. The Contractor is advised that firms conducting professional engineering are required by state law to obtain a Florida Engineering Certificate of Authorization. If applicable, this authorization shall be submitted along with the DOR’s evidence of professional registration.
- B. The PM who shall be a registered engineer or architect. This individual is responsible for overall integration of the contractor’s team DORs’ work. If the DOR is employed by the Contractor, that individual may also function as the Contractor’s PM.
- C. Final designs and As-built drawings shall be signed and marked with the official seal of the Designer. Along with any submitted final (100%) designs, the Designer shall also

submit a signed and sealed letter, which shall serve as an affidavit that confirms that the design complies with all applicable laws and regulatory standards.

### **6.1.2 Contractor Design Requirements after Award**

- A. See Section 1.1 General Requirements.
- B. Please note that the sole responsibility of ensuring that the design submittals comply with contract documents remains with the Contractor, in accordance with all the contract documents and design criteria referenced therein. The Government retains the right to comment on the design at any design stage, and the lack of Government comments at a given review cannot be used as a basis for the Contractor to fail to address the Government's comments on subsequent reviews, regardless of design stage. Furthermore, approval of incomplete designs will not relieve the Contractor of the responsibility for any error that may exist, and which may require rework or other appropriate adjustment to the contract terms, as determined at the sole discretion of the Government.
- C. Government review, clearance for construction, or approval by the Contracting Officer shall not relieve the Design-Build Contractor from responsibility for any errors or omissions in such drawings, nor from responsibility for complying with the requirements of this contract.
- D. Government review, clearance for construction, or approval of post design construction submittals shall not be construed as a complete check, but will indicate only that the general method of construction, materials, detailing and other information are satisfactory.
- E. As the designer of record (DOR), contractor has the sole responsibility of ensuring that the design complies with the contract documents.

### **6.1.3 User Requirements Design Meeting**

The DOR is required to hold and document meetings with project stakeholders to discuss design requirements. Any design issues which arise that are outside the scope of the contract shall be identified by the Design PM and submitted to the CO for review. If a change order is required, instructions will be given through the CO.

### **6.1.4 Geotechnical/Hazardous Material Survey Requirements and Responsibilities – Not Applicable**

### **6.1.5 General Design Requirements**

- A. The Contractor shall submit electronic versions of the following close-out documents for this project: Real Property Accountability Worksheet (DD 1354 Checklist), DD Form 1354 Transfer and Acceptance of DoD Real Property, a comprehensive database of

installed system and component information for the BUILDER Air Force condition assessment (Government provided template) and SMS, O&M manuals, warranty documentation, testing reports, commissioning reports including deferred seasonal functional testing/commissioning reports, training documentation, the Project Completion Memorandum, the Warranty Initiation Memorandum, permit applications, permits, chemical usage and tracking documents, hazardous materials documents, geospatial data, As-Built drawings, and other required documents.

## B. Design

- a. The Contractor shall prepare and submit for approval a 35%, draft 95%, Final 95% design and a 100% draft design and a Final 100% design. The design shall include a detailed description of the project requirements, a discussion of alternative solutions to technical challenges highlighting advantages and disadvantages, calculations for all structural, electrical, heating, and cooling loads, specifics of selected systems, a detailed Cost Engineering estimate of the Government's cost to operate and maintain the selected systems, and recommended value engineering measures to improve the performance of the facility systems and to reduce the associated costs of those systems to the Government.
- b. The design reveals the designer's rationale and intent. The design shall be configured to allow a reviewer unfamiliar with the project to gain an understanding of the project requirements, the design options that were considered, and the reasons that the selected design options were ultimately chosen. The design may include sketches, photographs, tables, flow charts, or other graphics or media necessary to communicate the intent of the design.
- c. The Contractor shall provide 35% design for review and comment. This package shall contain sufficient detail for general compliance verification for location, materials, and overall concept. The Government will perform a design submittal review and provide the Contractor with review comments. Government acceptance will be issued to acknowledge receipt of the design submittal. Government comments shall be addressed in the following design review submission. Refer to the Table of Deliverables for submittal, review period, and conference details.

### Design Submittal Requirements:

1. AF Form 3000 documenting the submittal contents.
  2. Table of Contents.
  3. Design analysis summarizing design approach.
  4. Initial plans and details.
- d. 95% Design –
    1. Draft 95% Design
    2. Composed of, at minimum, a Project Specifications, a Design Analysis, Design Drawings, and a Submittal Register.

3. 95% Design Review
  4. Meeting agenda.
  5. 95% Design Review Meeting Minutes.
  6. Government Approval Meeting Minutes.
  7. Government 95% Review and Comments
  8. Government Approval of Comments
  9. 95% Design Document
- e. 100% Design –
1. Draft 100% Design
  2. Composed of, at minimum, a set of Project Specifications, a Design Analysis, the Design Drawings, a Submittal Register, Test and Balance (TAB) Plan, a detailed Construction Schedule, a Construction Health and Safety Plan, and a Training Plan for system operators and maintainers.
  3. 100% Design Review Meeting
  4. Meeting agenda.
  5. 100% Design Review Meeting Minutes.
  6. Government Approval Meeting Minutes.
  7. Government 100% Review and Comments
  8. Government Approval of Comments
  9. Material Submittals
  10. 100% Design Document

### C. Design Analysis

- a. The Contractor shall prepare and submit for approval a 95% and a 100% Design Analysis (DA). The DA shall include a detailed description of the project requirements, a discussion of alternative solutions to technical challenges highlighting advantages and disadvantages, calculations for all structural, electrical, heating, and cooling loads, specifics of selected systems, a detailed Cost Engineering estimate of the Government's cost to operate and maintain the selected systems, and recommended value engineering measures to improve the performance of the facility systems and to reduce the associated costs of those systems to the Government.
  - b. The DA reveals the designer's rationale and intent. The DA shall be configured to allow a reviewer unfamiliar with the project to gain an understanding of the project requirements, the design options that were considered, and the reasons that the selected design options were ultimately chosen. The DA may include sketches, photographs, tables, flow charts, or other graphics or media necessary to communicate the intent of the design.
- D. Calculations: Calculations shall be shown in the 95% design submittal and in the 100% design submittal. All calculations used to select equipment such as valves, pumps, motors, fans, transformers, switches, circuit breakers, and/or lighting fixtures shall be shown. Software programs may be used to generate calculations; however, the design



shall address the appropriateness of any selected program(s), as well as provide a listing of software program inputs and software program generated outputs.

- E. Specifications: The Contractor shall draft United Facilities Guide Specifications (UFGS) compliant specifications and submit them for approval. The Contractor shall submit specifications at the 95% design level and the 100% design level. The completed specifications shall be provided to the CO in Portable Document Format (PDF), and in unprotected editable Microsoft Word (RTF, DOC, or DOCX) formats.
- F. Material Submittals: Material Submittals shall be approved prior to the 100% design final submittal. Table 1 requires the Material Approval (AF Form 3000) to be provided at the 95% Final design. These submittals will clearly show that the design specifications are met.
- G. The Contractor shall coordinate with the Base Civil Engineer (BCE) or his appointed representatives to ensure that any applicable Tyndall AFB specific code and regulatory requirements are captured in the completed specifications set.

#### **6.1.5.1 Furniture, Fixtures & Equipment (FF&E) Requirements – Not Applicable**

##### **6.1.5.1.1 CID/SID and FF&E Interim and Final Design Submittals – Not Applicable**

###### **6.1.5.1.1.1 Submittal Development**

- A. RESPONSIBILITY FOR ERRORS OR OMISSIONS: It is the sole responsibility of the Contractor to ensure that submittals comply with the contract documents. Government review, clearance for construction, or approval by the Contracting Officer shall not relieve the Contractor from responsibility for any errors or omissions in such drawings, nor from responsibility for complying with the requirements of this contract.

###### **6.1.5.1.1.2 Submittal Format and Timing – Not Applicable**

###### **6.1.5.1.1.3 Presentation Color Boards – Not Applicable**

###### **6.1.5.1.1.4 Doors Interior, Exterior and Rollup**

- A. At exterior locations provide locksets of full stainless steel type 302 or 304 construction including fronts, strike, escutcheons, knobs, bolts and all interior working parts. Marine Grade I, fully non-ferrous.
- B. Hinges for exterior doors should be stainless steel with BHMA 630 finish or solid brass or bronze with BHMA 626 finish. At exterior locations provide locksets of full stainless steel type 302 or 304 construction including fronts, strike, escutcheons, knobs, bolts and all interior working parts. Marine Grade I, fully non-ferrous.

- C. Doors must be made of 14-gauge galvanized steel sheet for exterior locations and 16-gauge for interior locations. Exterior frames must be prefinished and interior frames can be shop-primed and shop-finished. Steel doors and frames must comply with ANSI/SDI 100 and SDI 105.
- D. Steel doors and frames must be fabricated from galvanized steel sheets that comply with ASTM A 653/A 653M, commercial steel, or ASTM A 642/A 642M, drawing quality, with A60 or G60 coating designation, mill phosphatized.
- E. Exterior hollow metal steel doors must be Grade IV, extra heavy-duty, Model 2, and insulated, seamless design.
- F. Interior hollow metal steel doors must be Grade III, extra heavy-duty, Model 2, and insulated, seamless design.
- G. Exterior swing doors must swing out to allow the frame rabbet to act as a stop that will prevent doors from blowing in during high velocity winds. Having door seals compress by the door against the door frame side allows the rabbets to resist water.
- H. Doors must have Americans with Disabilities Act (ADA)-compliant weather-sealed thresholds and automatic door bottoms or door shoe with drip. Door thresholds must have concrete recessed seats and Type 316 stainless-steel door sill pan flashing with end dams, rear leg, and turned-down front leg. The top of door must have Type 316 stainless steel drip with hook at top of exterior door and door frame.
- I. Rollup doors must be 20 gauge with 24 gauge trim. Heavy duty framing is required. The doors must meet missile test and ASTM E1886 and ASTM E1996 (HVHZ /FBC)

#### **6.1.5.1.1.5 Lighting:**

- A. Luminaries/ Interior Lighting - Lighting fixtures must be LED, and have a correlated color temperature of no greater than 4,100 degrees Kelvin and a color rendering index of 90 CRI. All lighting fixtures must have the same correlated color temperature.
- B. Luminaries/ Exterior Lighting - Lighting fixtures must be LED, and have a Color Rendering Index (CRI): Minimum of 80 or higher with amber light for areas that require specific lighting for turtles. The Airey side of the base shall have the amber lighting.
- C. Luminaries/ Emergency Lighting - Lighting fixtures must be LED.
- D. Fire Protection Strobes shall be amber and not white.

#### **6.1.5.1.1.6 Carpeting:**

- A. MEMORANDUM FOR ALMAJCOM-FOA-DRU, Mandatory Use Policy for Air Force Carpet Acquisitions within the Contiguous U.S.
- i. Based upon the recommendation of the USAF Carpet project team and my authority as the Air Force Category Manager for 4.0 Facilities and Construction, which includes 6.3 Office Furniture, a mandatory-use policy is warranted and shall be implemented for the procurement of carpet for AF installations located within the contiguous United States. Deviation from this policy is only authorized by receiving an approved waiver from the AFCEC Category Lead for 6.3 Office Furniture.

#### **6.15.1.1.7 HVAC**

A. MEMORANDUM FOR AFCEC/CO

- i. The 325th Civil Engineer Squadron requests that Trane be the single manufacturer for Heating, Ventilation, and Air Conditioning (HVAC) chiller systems at Tyndall AFB.

#### **6.1.5.1.1.8 HVAC Controls**

A. Justification and Approval (J&A) for Other Than Full and Open Competition - Tyndall AFB Reconstruction, Facility Related and Industrial Control Systems.

- i. The use of Siemens brand name programmable controllers will be required for all projects that require a connection to the identified (existing or currently under development) installation networked facilities control and monitoring systems commonly referred to as the Energy Management and Control (EMCS) system, fire reporting system, and base defense system. The Siemens controllers will be configured and programmed using government-licensed Siemens software. Programmable controllers are categorized as FRCS/ICS and include building automation sensors, occupancy analysis sensors, energy efficiency monitoring sensors, lighting sensors, back-up power sensors, redundant energy systems monitoring sensors, leak detection sensors, meters, fire/smoke/carbon monoxide sensors, mass notification, gunshot detection sensors, intrusion detection sensors, and industrial controls (i.e. pump controls, roadway intersection signals, etc).

#### **6.1.5.1.1.9 Tyndall Rebuild - Facility Related Control Systems (FRCS) Technology**

Tyndall Air Force Base will utilize FRCS technology to create a connected and data driven Installation.

Tyndall's application of FRCS technology must align with the Base of the Future (BoT) concept, with the FRCS design and implementation focusing on development of a smart connected facility with a people- focused platform to optimize facility operations and energy resiliency.

The sole-source provider of most FRCS systems described herein has been selected through the federal J&A process to be the Siemens Smart Infrastructure factory office located at Tyndall Air Force Base. The Siemens Tyndall Office or a Siemens-certified installer must perform the FRCS scope of each project.

For pricing coordination contact Jeremy Russell (850) 528-9212  
jeremy.russell@siemens.com (Jobsite office located at Building 481, Florida Ave.  
TAFB). (Alternate: Jim Bradshaw (904) 616-8062 [jamesbradshaw@siemens.com](mailto:jamesbradshaw@siemens.com))

A. Facility Related Control Systems – General Requirements

- a. FRCS must allow monitoring at the operations level. Operations level is defined as the operations center, but will include the Utility Operations Center (UOC), Installation Communications Center (ICC), and Base Defense Operations Center (BDOC) separately. The ICC acts as the primary location for use of the installation wide Utility Monitoring and Control System (UMCS), locally referred to as the Environmental Management Control System (EMCS) – Siemens Desigo CC, and must provide the visibility and functionality as described in this document. The names of the operations centers are subject to change.
- b. FRCS must have the ability to be viewable at any operations center based on installation requirements outlined in the Interface Schedule to be developed by the DOR, and as defined in this document.

B. System Integration/Interface Requirements: The following control systems, which are a subset of FRCS identified in 10 USC 2867, must be integrated to the UMCS in accordance with UFGS 25 10 10 and UFC 3-470-01.

- a. Heating, Ventilation, and Air Conditioning (HVAC)
- b. Lighting
- c. Domestic Hot Water
- d. Submetering
- e. Utility Metering

C. These systems must integrate to the UMCS and use the UMCS Front End as the only front end for the system. Licensing must be provided for all systems within each building sufficient to cover the integration of that building into Siemens Desigo CC. Building level user interfaces such as Local Display Panels may be provided for these systems if requested by the installation.

- a. The HVAC control system and the Domestic Hot Water control system must use BACnet from the Front End to the last networked device. Provide equipment with BACnet cards and integrate into the UMCS front end.

- b. Lighting control system shall be furnished by Siemens Smart Infrastructure and must use BACnet from the Front End to either the last networked device, or to a gateway to a field control system or subsystem using another protocol.
- D. All facility-related Power Distribution and Utility Metering Systems shall integrate to the Siemens provided UMCS Front End. Power distribution and metering systems may utilize appropriate protocols such as DNP 3.0, Modbus, or IEC-61850 as appropriate to the systems and their integration with the UMCS Front End.
- E. Each of following control systems must each provide a single base wide front end for the system, and must interface to the base wide UMCS at the base wide system level:
- a. Fire Protection System
  - b. Fire Detection System Electronic Security System
  - c. Intrusion Detection System (IDS)
  - d. Gunshot Detection System (SDS Guardian – provided by Siemens Smart Infrastructure)

Additional requirements for the integration and interface to these systems are defined in the use cases shown in the Division 25 guide specifications for each system.

F. Integrated Control Systems

- a. All control systems described in this section must have the ability to use sensor data from the other control systems. For example, an occupancy sensor point signal used for lighting must be available for use in the HVAC control system.
- b. The following design submittals are required for every integrated control system:
  - 1. Point Schedule, as defined in UFC 3-410-02:
  - 2. The design must include Points Schedules which are fully completed for design as indicated in the UFC for all systems controlled by BACnet devices, including requirements on view ability, override capability, configurability, trending, and alarming for every point. All BACnet devices must be addressed on a Points Schedule.
  - 3. For systems using non-BACnet protocols and with a gateway to BACnet, provide Points Schedule for the BACnet side of the gateway.
  - 4. For systems using non-BACnet protocols and their own front end, provide Points Schedules for the entire non-BACnet system. Points Schedules must be as complete as possible for the protocol in use, with additional protocol information columns added as needed. If a system will require a separate frontend, it must be approved by the contracting officer.

5. The design package specifications must include a requirement for Points Schedules to be included in as-built drawings for all systems, regardless of whether they use BACnet or another protocol. For non-BACnet devices Points Schedules must be as complete as possible for the protocol in use, with additional protocol information columns added as needed.
- c. These requirements must be reviewed with the installation on a system by system basis.
1. System Interface Schedule: For each system interfacing with the UMCS at the base wide system level, provide an interface schedule documenting the interface and showing at a minimum:
    - i. Protocol used for communication
    - ii. Points shared between the system
      - 1). Point Name
      - 2). Point Description
      - 3). Point Source/Origin System
      - 4). Point permissions (read, read/write)
    - iii. Any additional information necessary to establish communication between the systems or to create/modify the information shared between the systems.
  2. Graphical User Interface plan incorporating all operationally-relevant points into a 3-dimensional floorplan graphic. The plan must also integrate the facility into the installation-level perspective view.
  3. Network Architecture (Riser Diagram)
  4. Sequence of Operations – Provide a narrative on the step by step instruction on control system operations, including unoccupied periods.
  5. Occupancy and Thermostat Sensor Schedule
- G. Integrated FRCS Specific Use Cases: See “Tyndall Rebuild - Facility Related Control Systems (FRCS) Technology Summary” for additional information
- H. Cybersecurity Requirements: See “Tyndall Rebuild - Facility Related Control Systems (FRCS) Technology Summary” for additional information
- I. Server Requirements: See “Tyndall Rebuild - Facility Related Control Systems (FRCS) Technology Summary” for additional information

## J. FRCS Networks Infrastructure Requirements

- a. General Requirements: Siemens Smart Infrastructure is not responsible for providing the network switches and network management software associated with FRCS systems which will be provided by 325th Comm. Squadron.
- b. Building Control System (BCS)/Utility Monitoring and Control Systems (UMCS) Network: BCS / UMCS Network shall reside on the base-wide COIN network. Siemens shall coordinate with TAFB IT staff to identify number of switch ports required, and coordinate with prime contractor in each zone for their installation of the structured cabling and fiber needed to support the BCS/UMCS systems from the demarcation point at each building.
- c. Fire Alarm (FA) and Mass Notification Systems (MNS) Network: FA / MNS Network shall be provided as a separate dedicated network which connects to the base-wide COIN network. Siemens or certified installer shall coordinate with prime contractor in each zone for their installation of the structured cabling and fiber needed to support the FRCS systems from the demarcation point at each building.
- d. Gunshot Detection System(s) Network: Gunshot Detection Network will reside on the base-wide COIN network. Siemens Smart Infrastructure or certified installer shall coordinate with prime contractor in each zone for their installation of the structured cabling and fiber needed to support the FRCS systems from the demarcation point at each building.

### 6.1.6 Design Review

#### 6.1.6.1 Government Review

- A. The Government will review all design submittals for conformance with the requirements of the contract. Each submittal is to be complete and in sufficient detail to allow ready determination of compliance with contract requirements.
- B. The Government's review is not to be considered a quality control review; the Contractor shall provide his own internal quality control as required by Contractor Design Quality Controls Plan (DSQP) before the design is submitted to the Government. The Government's review or acceptance does not relieve the Contractor of his responsibility to provide a safe, functional project in accordance with the terms of the contract.
- C. If the Government's review results in comments, the Contractor shall respond to each comment with a response that clearly indicates what action will be taken. Comments that, in the Contractor's opinion, require effort outside the scope of the contract will be clearly indicated as such by the Contractor, and the issue shall be documented in writing then submitted to the CO for consideration and determination. The Contractor shall not

proceed with work outside the contract as determined by the CO unless a modification to the contract is executed.

- D. Approval is required for any proposed deviation from the accepted design. Failure to coordinate the approval of variations and deviations may result in the Government rejecting and requiring removal of work at no additional cost to the Government.
- E. Per the Contract the Contractor is the Designer of Record (DOR) per FAR 52.236-23. The Contractor shall be responsible for the professional quality, technical accuracy, and the coordination of all designs, and drawings, specifications, and other services furnished by the contractor. The government will review and accept the attached documents for technical compliance of the Contractor supplied Design Analysis/Bases-of-Design for conformance with the contract SOW, per FAR 52.236-21 Approval by the Contracting Officer shall not relieve the Contractor from responsibility for any errors or omissions in such drawings, nor from responsibility for complying with the requirements of the contract. The contractor warrants to the government that the associated plans and specs are in complete compliance with the Design Analysis; as such the contractor owns all details of the design and is liable for any and all errors or omissions. It is the Contractor's responsibility to insure all aspects of the design are in compliance with the Bases-of-Design and associated documents; continuous construction inspection is the responsibility of the Contractor. The government reserves the right to inspect and test any phase of work without relieving the Contractor of any responsibility for contract compliance.

## **6.2 DESIGN-BID-BUILD (D-B-B) – NOT APPLICABLE**

### **7.0 ADDITIONAL REQUIREMENTS**

#### **7.1 Types of Projects / Work**

##### **7.1.1 Military Family Housing – Not Applicable**

##### **7.1.2 Fueling System Projects – Not Applicable**

##### **7.1.3 Range Construction – Not Applicable**

##### **7.1.4 Pavement Systems (Airfield and Non-airfield) –**

- A. Pavement replacement and repairs conducted as part of the overall projection shall be to the standard as required in the Tyndall IFS and applicable UFCs.

##### **7.1.5 Renovations (including historic buildings) – Not Applicable**

##### **7.1.6 Construction of Classified or Highly Secure Facilities – Not Applicable**



## 7.2 AS BUILT DOCUMENTATION

- A. Drawings shall be prepared on AutoCAD release 2008 or later format. Drawings shall be delivered in hard copy, standard black line quality paper, at review stages. One of the drawings provided to CENM shall be full size. All drawings will utilize the Tri-Service Spatial Data Standards (TSSDS) Version 1.8, for compliance with the installation standards. Digital copies of all drawings for project files and CES review shall be provided to the Contracting Officer for project at the 35%, 95% and 100% design phases. Approved, For Construction plan set shall be provided digitally and in hard copy with the designer of record's signature and seal. When the 100% design drawings are accepted, the contractor may then begin construction. As-Built drawings shall be submitted to the government upon completion of construction and shall be reviewed for accuracy. Upon approval, the contractor shall provide electronic versions of the As-Built drawings in both AutoCAD 2008 or later, and as .PDF to the government on CD. The drawings shall be drawn to appropriate scales and dimensioned completely and accurately. Extensive explanatory notes on the drawings should be held to a minimum. Dimensions shall be shown in Standard English units. Standard building material indications and symbols for architectural items and for mechanical and electrical equipment shall be used to the greatest extent possible.
- B. Accurate As-Built drawings denoting the details of what was actually constructed or installed shall be created from day-to-day field notes of deviations or changes from the design drawings. Where the actual construction or installation differs from the design, the As-Built drawing set shall accurately record what was built/installed on all applicable drawings. In the case of any contract modifications associated with the construction effort, the Contractor shall be responsible for adding pages to the As-Built drawing set as needed to fully describe what was physically built or installed.
- C. The Contractor is responsible for maintaining records of such deviations or changes, including those generated by any subcontractors, on the project site. These records may take the form of a master set of manually marked-up red line record drawings. The Contractor shall provide access to these records to the CO or COR upon request, without prior notice. All field notes on design drawings shall be printed or written legibly in red ink, so that they are clearly readable by others.
- D. Delays in delivering accurate As-Built drawings in accordance with the Table of Deliverable Documents and/or the Submittal Register may subject the Contractor to the payment of Liquidated Damages. Inaccuracies of the As-Built drawings, or missing portions of the As-Built drawings, shall be considered to be a defect and shall be corrected by the Contractor at his cost.
- E. The minimum drawing scale on drawings shall be 1/4" = 1'-0". Preliminary electronic As-Built Drawings shall be submitted with an AF Form 3000, Material Approval Submittal, for Government Approval. The submission shall precede or be concurrent with the request for a Pre-Final Inspection.

F. Design Drawings:

- a. As-Built drawings are required project close out submittal documents.
- b. The Contractor shall prepare and submit for approval a 95% set of design drawings and a 100% set of design drawings. Regardless of the software used to prepare the drawings, the submitted unprotected and fully editable drawing files shall be wholly compatible with the most recent version of AutoCAD. The Contractor shall also submit a PDF version of the complete drawing set, in addition to 1 set of bound hard copies. The drawings shall be configured to allow a competent construction Contractor unfamiliar with the project to propose, plan, and fully execute construction without additional design or excessive change orders.
- c. At a minimum, the Contractor shall submit drawing pages covering the following: Title Page, Index of Drawings, Legend of Symbols and Abbreviations, Construction General Notes, Demolition Plan, Site Plan, architectural plans, structural plans, utilities plans, mechanical plans, plumbing plans, fire protection and life safety plans, electrical plans, and lighting plans. The Contractor shall submit other drawing pages as needed to completely convey the design intent to a competent construction Contractor.

G. Project Closeout Documentation:

- a. Submissions of project close-out documents are required project tasks. The Contractor shall include these tasks in his Contract Progress Schedules and his Contract Progress Reports. The project will not be considered to be completed until all required project close out documents have been submitted and approved.
- b. The Contractor shall submit electronic versions of the following close-out documents for this project: Real Property Accountability Worksheet (DD 1354 Checklist), DD Form 1354 Transfer and Acceptance of DoD Real Property, a comprehensive database of installed system and component information for the Builder Air Force condition assessment and SMS, O&M manuals, warranty documentation, testing reports, commissioning reports including deferred seasonal functional testing/commissioning reports, training documentation, the Project Completion Memorandum, the Warranty Initiation Memorandum, permit applications, permits, chemical usage and tracking documents, hazardous materials documents, geospatial data, As-Built drawings, and other required documents.
- c. The Contractor shall provide both electronic and hard copy versions of O&M manuals at least to the time listed in Table 1 As-Built Design Documents prior to conducting training sessions. Hard copy versions of O&M manuals shall be bound in high quality hard cover binders with dividers separating the various sections. Hard

- copy versions of O&M manuals shall include computer discs containing the electronic versions of those manuals.
- d. O&M manuals shall be configured to provide ready access to information needed to operate and maintain the facility for years, likely decades, to come. As the important continuity documents that they are, they should summarize the project; describe what was constructed and/or installed; provide equipment schedules, schematics, diagrams, and pictures; include catalog cut sheets; include manufacturer's product manuals; list start up, operations, shut down, user-level disassembly/reassembly, and repair procedures; as well as include all information necessary to obtain warranty service during the 12 month general warranty period, and any manufacturer warranty periods. O&M manuals shall include clear and readable pictures of equipment data plates for all installed equipment.
  - e. O&M manuals are required project close out submittal documents.

**POINTS OF CONTACT (POCs)**

- A. Contracting Officer Authority: CO, the term used herein, does not include any representative not acting within the scope of his/her authority. Notwithstanding any of the provisions of this contract, the CO shall be the only individual authorized to in any way amend or modify the terms of this contract.
- B. POCs will be coordinated through the CO.
- C. Contracting Officer (CO):
- a. The CO will be SSgt Garret Parker.
- D. Contracting Officer Authority (COA):
- a. COA, the term used herein, does not include any representative not acting within the scope of his/her authority. Notwithstanding any of the provisions of this contract, the CO shall be the only individual authorized to in any way amend or modify the terms of this contract.
- E. Secondary Contact:
- a. SSgt Garret Parker  
105 Mississippi Rd.  
Building 36235  
Tyndall AFB, FL 32403-5526  
Garret.parker@us.af.mil
- F. Contracting Officer's Representative (COR):
- a. (TBD)
- G. Technical Representative
- 325 CES/CEPMS is designated as the technical representative to ensure progression, workmanship, and inspection of materials for work being performed under this contract. This clause in no way authorizes anyone other than the CO to commit the Government to changes in the terms and conditions of the contract

**Attachments:**

**Appendix A Description of Work**

**Appendix B Maps, Drawings, And Other Project Specifics**

**END OF DOCUMENT**