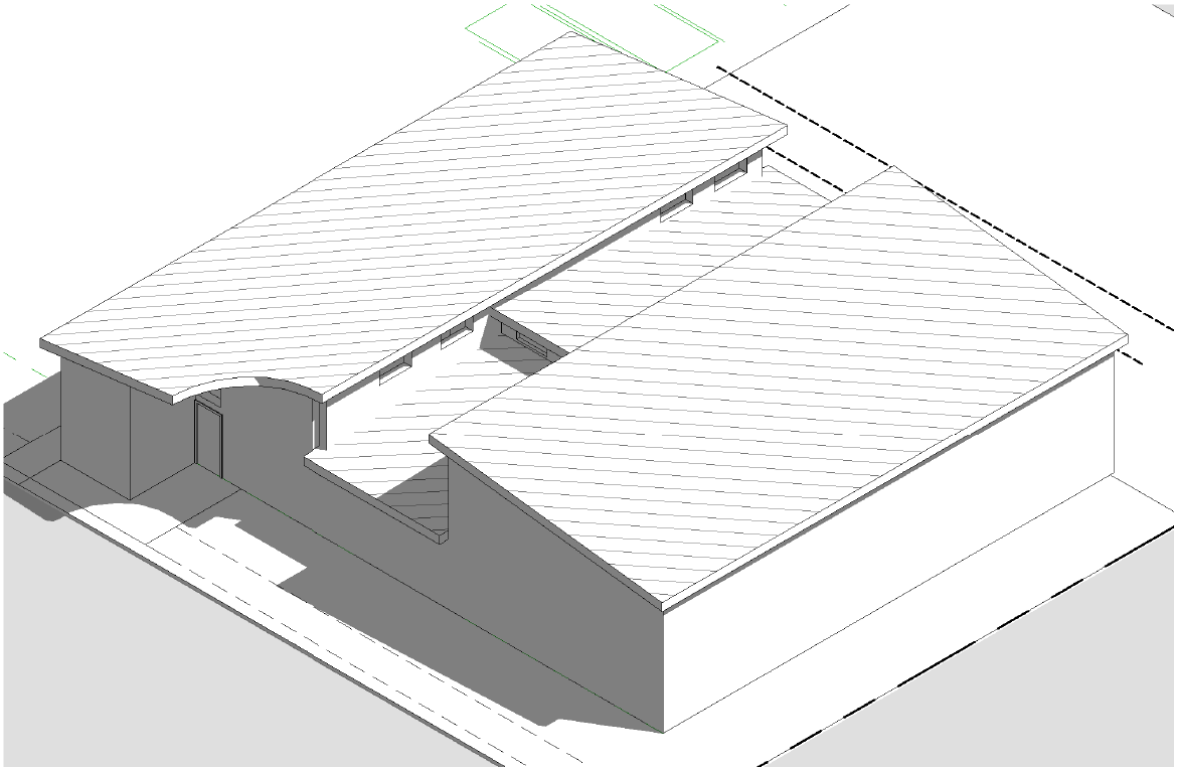
Appendix B
Additional Requirements

Construct Honor Guard Facilities



TYNDALL AFB, FLORIDA

Project Number: XLWU 21-8120

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1.0 SCOPE OF WORK

A. This is a Design-Build project to provide a new Honor Guard facility for Tyndall Air Force Base, Florida. The project is comprised of the design and construction work required to result in a complete and useable Honor Guard facilities on Tyndall AFB.

BUILDING SCOPE – GENERAL DESCRIPTION

1. Construct a new facility approximately 4200 SF.
   a. Provide all utilities and connections.
   b. Tyndall AFB IFS compliant.
2. Parking area will be approximately 8200 SF.
3. The existing estimated elevation of the site is 15-16 feet above sea level. The facilities must be elevated to a 19-foot design flood elevation minimum and at least 1-foot above road grade.
4. Provide stormwater ponds and systems.

B. The Design-Build Team will consist of a Construction and design team Designer of Record (DOR) that must perform the services herein and as described in this Statement of Work (SOW).The Contractor must 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 must be based on the project description, other data furnished in this SOW, and information covered during kick-off meeting.

1.1 GENERAL REQUIREMENTS

A. Applicable provisions of the Contract Clauses in the contract will govern work under each section of the UFGS specifications.

B. This project has an estimated period of performance (PoP) from Notification to Proceed (NTP) through completion and turnover of the facility back to the Government for mission operations. Recommended PoP is 544 calendar days.

C. Proposal Documents: The contractor must 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 quaintly verification should be used for bidding package.

E. Field Changes:
   1. 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.
   2. No order, statement or direction of the Contracting Officer, an authorized representative of the Contracting Officer whether acting within the limits of his authority, or any other representatives of the Government, must constitute a change order under the “Changes” clause

of this contract or entitle the contractor(s) to an equitable adjustment of the price or delivery schedule, unless such a change is issued in writing and signed by the Contracting Officer.

F. Job Start Meeting: A job start meeting must be accomplished with the Contractor, Contracting Officer, CE, and user upon acceptance of the 35%, 65%, or 100% design submission. The meeting objective is to review project details, determine design delivery dates and anticipated construction start date, security procedures for site, dumpster locations, and any applicable requirements during construction. The Contractor must visit the job site to verify location, conditions, and dimensions prior to starting work.

G. Pre-Construction Meeting: A preconstruction meeting must be held when all the design has reached the Issued for Construction (IFC) stage and all preconstruction submittals have been approved. The contractor Quality Control Manager, Site Safety Officer, and Superintendent must be required to attend. This meeting will address all items specific to the project to include access, safety, and environmental needs.

H. Bulletin Board: Immediately upon mobilization, the Contractor must provide a bulletin board not less than 36 by 48 inches (915 by 1220 mm) in size for displaying various documents required within the contract. The bulletin board must be located at the project site in a conspicuous place easily accessible to all employees. All documents posted must be legible and replaced as needed when unreadable. The board must be displayed until the work is completed whereby the Contractor must remove the board and remain the property of the Contractor. The contents of the board must include, but not limited to, the following:

1. Contractor's company name
2. Project name
3. MPLS number
4. Superintendent's name and a 24-hour available response phone number
5. Equal Employment Opportunity poster
6. Wage determination
7. Wage Rate Information poster.
8. Other documents as needed or required.

I. Employee Parking: Contractor employees must 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 must be maintained in good working conditions and properly stored when not in use. Construction attire must be in accordance with applicable OSHA regulations.

K. Field Measurements: The Contractor must be required to make his/her own field investigations to verify existing conditions, dimensions and other information shown on Government available non-verified 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 must be identified and addressed by the contractor during the design phase of the contract. They must be annotated on the respective contract documents as well as on a consolidated register that will be made available to the government for simplified identification and review.

L. Notification Requirements: The Contractor must 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 must immediately notify the CO and stop work. Work must only resume at the direction of the CO following resolution of the issue.

M. On-Site Field Oversight: The Contractor must 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.

N. Federal Holidays:

1. The standard Federal legal holidays are observed:

a. New Year's Day	January 1
b. Birthday of Martin Luther King, Jr.	Third Monday in January
c. Washington's Birthday / President' Day	Third Monday in February
d. Memorial Day	Last Monday in May
e. Juneteenth	June 19
f. Independence Day	July 4
g. Labor Day	First Monday in September
h. Columbus Day	Second Monday in October
i. Veterans Day	Second Monday in November
j. Thanksgiving Day	Fourth Thursday in November
k. Christmas Day	December 25

2. Any of the holidays falling on Saturday will be observed on preceding Friday; holidays falling on Sunday will be observed on the following Monday. In addition, the Government may dictate the workday before or the workday after an observed holiday as a "Family Day."

3. The Contractor should not perform work on observed holidays, Wing Down Days, Wing Safety Days or Family Days unless authorized by the Contracting Officer for the TO. In the event work is authorized on observed holidays, the Contractor must pay all applicable overtime and/or holiday pay rates required by law.

O. 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 must be performed during normal duty hours. All other hours to include weekend and holidays must be requested through the CO for approval. This request must be submitted no less than three (3) workdays prior to the time requested.

P. Availability and Use of Utility Services:
1. The contractor should plan on having an offsite office location. The government does not guarantee office space will be provided. The Government does not guarantee utilities will be provided for office space. The use of a generator and porta toilets must be required of office space is provided. To install and office space and laydown yard will require an 813 Permit determination and could take up to 60 days to obtain the permit.

2. The Contractor must coordinate with Contracting Officer's Representative (COR) for laydown area, offices, and parking and storage facilities. Any damage to existing improvements adjacent to or on the project site due to construction activity under this contract must be replaced/repaired at the Contractor's expense. All Contractor POV parking areas must be coordinated and approved in advance by the Contracting Officer's Representative.

3. Construction sites must be kept neat and free of trash. Site construction areas must be surrounded with orange, plastic safety barrier fence when required to separate construction activities from daily personnel traffic.

Q. Sanitation: The Contractor must 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.

R. Clean Up: At the end of each working day the Contractor must 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 must be placed in refuse containers immediately. Clean up of the work site must include the construction area(s), construction office area(s), material storage area (s), parking and eating area(s), and any other area(s) effected by the construction process. Any dirt or mud which is tracked on to any Base Street, parking area, sidewalk, patio, or driveway must be cleaned away daily. Materials resulting from demolition activities which are salvageable must be stored within the work area or at a supplemental storage area. Stored material not in trailers, whether new or salvaged, must be neatly stacked when stored in an approved location.

S. 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 must comply with the Air Force Military Training Center (AFMTC) Regulation 700-14, Jul 89.

T. Preparation of Progress Schedules and Reports: The reports contemplated by FAR Clause, 52.236-15, Schedules for Construction Contracts, must 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 must run from Monday through Sunday and be submitted to the CO per table of deliverables located in 4.0 A Table 1 - Table of Deliverables.

U. Deteriorated Construction and Finish
Authority: The QA Inspector will be the governing authority in determining if existing construction and finishes are deteriorated and require repair and/or replacement.

V. Contractor Storage/Staging Area

1. **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** must be **provided at the subject project site. If project site space is not available, then offsite storage** must be **required.**

2. **Utility 'tie-ins', where available, are the Contractor's responsibility. See 1.1 General Requirements, Q. Availability and Use of Utility Services for additional information.**
3. **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.**
4. **In areas of high visibility, the job site construction fence** must **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 requires a screened fence or not. Remove fence upon completion. Rehabilitate disturbed turfs and grass and if reseeding is required use Bermuda grass.**

W. Hazardous component abatement for materials such as asbestos, lead-based paint, PCBs, and other hazardous materials must be the responsibility of the Contractor. Abatement of mold resulting from water damaged materials must be the responsibility of the Contractor.

X. The duration of days is considered calendar days unless otherwise noted.

Y. COVID-19 Requirements - During the COVID-19 pandemic it is vital to Tyndall AFB's Mission that the Contractor adhere to all Tyndall AFB Covid-19 directives to mitigate virus transmission. The contractor must be responsible for the following: follow CDC guidelines, setting up teleconference meetings, wearing mask and social distancing when entering a government facility, the screening of their employees, and reporting COVID-19 cases to the 325th CONS and 325th CES project manage (PM). As Covid-19 directives are living documents, it is the Contractor's responsibility to be informed and follow the most recent published directive.

Z. Project Signage: As required per the FAR.
As required, a job sign must be required at the project site. The CO or the Government Inspector will make a determination based on cost and visibility. The sign must indicate the Contractor's company name, project name and MPLS number, superintendent's name, and a 24-hour available response phone number. The size of the sign must be 4' x 8' x ¾" thick plywood board mounted to a 2x4 wood frame and diagonal braces. The wood frame must be supported on 4x4 wood supports and be mounted to the ground in concrete footings. Background color must be in accordance with Federal Standard White (Gloss). The color of the lettering must be Black (gloss) with Helvetica font.

AA. The contractor must coordinate base access with the base CES PM. Tyndall has an electronic badging process that requires the personnel to log in to the website and obtain a 6-digit alpha number to be provided with other respective information and a copy of the DL. Additional information to be provided after award. See Site Access Badges for additional details.

1.2 APPLICABLE DOCUMENTS

A. The Contractor must 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 must 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 must 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 must 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 must 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 must 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 must adhere to the following guidance during design and construction phase(s) of this project. The sections of the International Building Code (IBC), 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 must review, comply, and adhere to the most current versions of the following code criteria:

Tyndall AFB IFS	Tyndall Air Force Base Installation Facility Standard www.tyndallifs.com
Tyndall AFB FEP	TAFB Facility Excellence Plan
UFC 1-200-01	The DoD Building Code
UFC 1-200-02	High Performance and Sustainable Building Requirements
UFC 1-300-02	Unified Facilities Guide Specifications (UFGS) Standard
UFC 1-300-07A	Design Build Technical Requirements
UFC 1-300-08	Criteria for Transfer and Acceptance of DoD Real Property
UFC 3-101-01	Architecture
UFC 3-110-03	Roofing
UFC 3-110-04	Roofing Maintenance and Repair
UFC 3-120-01	Design: Sign Standards
UFC 3-120-10	Interior Design
UFC 3-190-06	Protective Coatings and Paints
UFC 3-201-01	Civil Engineering
UFC 3-201-02	Landscape Architecture
UFC 3-210-10	Low Impact Development
UFC 3-220-01	Geotechnical Engineering
UFC 3-220-05	Dewatering and Groundwater Control
UFC 3-230-01	Water Storage and Distribution
UFC 3-230-10A	Water Supply, Water Distribution
UFC 3-240-01	Wastewater Collection and Treatment
UFC 3-250-01	Pavement Design for Roads and Parking Areas
UFC 3-250-03	Standard Practice Manual for Flexible Pavements
UFC 3-250-04	Standard Practice for Concrete Pavements
UFC 3-250-08FA	Sealing Joints and Cracks
UFC 3-250-11	Soil Stabilization for Pavements

UFC 3-260-02	Pavement Design for Roads, Streets, Walks, and Open Storage Areas
UFC 3-300-07A	Design Build Technical Requirements
UFC 3-301-01	Structural Engineering
UFC 3-310-04	Seismic Design for Buildings
UFC 3-400-02	Design: Engineering Weather Data
UFC 3-401-01	Mechanical Engineering
UFC 3-410-01	Heating, Ventilating, and Air Conditioning
UFC 3-410-02	Direct Digital Control for HVAC
UFC 3-410-04	Industrial Ventilation
UFC 3-420-01	Plumbing Systems
UFC 3-420-02FA	Compressed Air
UFC 3-430-09	Exterior Mechanical Utility Distribution
UFC 3-450-01	Noise and Vibration Control
UFC 3-501-01	Electrical Engineering
UFC 3-520-01	Interior Electrical Systems
UFC 3-530-01	Interior and Exterior Lighting and Controls
UFC 3-550-01	Exterior Electrical Power Distribution
UFC 3-560-01	Electrical Safety O&M
UFC 3-570-01	Cathodic Protection
UFC 3-570-06	Operation and Maintenance: Cathodic Protection Systems
UFC 3-575-01	Lightning and Static Electricity Protection
UFC 3-580-01	Telecommunications Interior Infrastructure
UFC 3-600-01	Fire Protection Engineering for Facilities
TSFPEWG G 3-600-01.01-18	Air Force Fire Protection Engineering Criteria and Technical Guidance for Mission Continuity of Electronic Information technology, and Telecommunications Equipment Installations
UFC 3-701-01	DoD Facilities Pricing Guide, with Change 2; 2019
UFC 3-730-01	Programming Cost Estimates for Military Construction
UFC 3-740-05	Handbook: Construction Cost Estimating
UFC 4-010-01	DOD Minimum Antiterrorism Standards for Buildings
UFC 4-010-05	Sensitive Compartmented Information Facilities
UFC 4-010-06	Cybersecurity of Facility-Related Control Systems
UFC 4-020-01	DoD Security Engineering Facilities Planning Manual
UFC 4-021-01	Mass Notification Systems
UFC 4-021-02	Electronic Security Systems
UFC 4-211-01	Aircraft Maintenance Hangars
USAF BIM	Minimum Requirements Version 2.1
AASHTO	A Policy on Geometric Design of Highways and Streets
ABAS	Architectural Barriers Act Standards: The ABA must be found at https://www.access-board.gov/guidelines-and-standards/buildings-and-sites/about-the-aba-standards/aba-standards.
AFDS	Air Force Design Guide
AFGM 2018-32-01	Civil Engineer Control Systems Cybersecurity
AFI 32-1020	Planning and Programming Built Infrastructure Projects
AFI 32-1024	Standard Facility Requirements
AFI 32-1063	Electrical Power Systems
AFI 32-1064	Electrical Safe Practices
AFI 32-1065	Grounding System www.wbdg.org › FFC › AFI › afi_32_1065_2017
AFI 32-1067	Water Systems

AFI 32-1068	Heating Systems and Unfired Pressure Vessels
AFI 32-1069	Gas Supply and Distribution
AFMAN 32-1061	PROVIDING UTILITIES TO U.S. AIR FORCE INSTALLATIONS
AFMAN 91-203	Air Force Occupational Safety, Fire and Health Standards
AFMAN 32-1084	Facility Requirements Standards
ANSI C2	National Electric Safety Code
ASCE 7-16	American Society of Civil Engineers, Minimum Design Loads and Associated Criteria for Buildings and Other Structures
ASHRAE 55	Thermal Environmental Conditions for Human Occupancy
ASHRAE 62.1	Ventilation for Acceptable Indoor Air Quality
ASHRAE 90.1 2013	Energy Standard for Bldgs. Except Low-Rise Residential 2013
ASHRAE 100	Energy Conservation in Existing Buildings
ASHRAE 111	Testing, Adjusting, and Balancing of Building HVAC Systems
ASHRAE 180	Inspection & Maintenance Commercial Bldg. HVAC Systems
ASHRAE 189.1	Standard for the Design of High-Performance Green Buildings
ASHRAE 202	Commissioning Process for Buildings and Systems
ASHRAE Guide 4	Prep of Operating and Maintenance Documentation
ECB 2018-11	Control System Cybersecurity Coordination Requirement
EISA	Energy Independence and Security Act of 2007
EM 385-1-1	USACE Safety and Health Requirements Manual
EPAct 2005	Energy Policy Act of 2005
FC 4-218-03F	Air Force Criteria for Precision Measurement Equipment Laboratory Design and Construction
FAR	Federal Acquisition Regulations
FRCS Matrix	FRCS Master List Memo- Base Systems Attachment A. FRCS Master Acronym List FRCS Deliverable List FRCS Memo for Record for standardizing points and graphics.
FS 553	Florida Building Code
IBC	International Building Code
IES	Illuminating Engineering Society Lighting Handbook
IFGS	International Fuel Gas Code
IMC	International Mechanical Code
IPC	International Plumbing Code
MIL-HDBK-1190	MILITARY HANDBOOK: FACILITY PLANNING AND DESIGN GUIDE
NACE	National Association of Corrosion Engineers
NACE SP-0169	Control of External Corrosion on Underground or Submerged Metallic Piping Systems
NACE SP-0185	Extruded Polyolefin Resin Coating Systems
NACE SP-0286	Electrical Isolation of Cathodically Protected Pipelines
NBIMS US V3	National BIM Standard US Version 3
NEBB	Standards for Whole Building Systems Commissioning
NEC	National Electrical Code, current edition
NEMA	National Electrical Manufacturer's Association
NESC	National Electrical Safety Code current edition
NFPA 13	Standard for the Installation of Sprinkler Systems
NFPA 24	Installation of Private Fire Service Mains and Their Appurtenances
NFPA 70	National Electric Code

NFPA 72	National Fire Alarm Code
NFPA 90A	Standard for the Installation of Heating and Air Conditioning Systems
NFPA 101	Life Safety Code
NFPA 1141	Standard for Fire Protection Infrastructure for Land Development in Wildland, Rural, and Suburban Areas
NPDES	National Pollutant Discharge Elimination System http://www.dep.state.fl.us/water/stormwater/npdes/construction3.htm
Oshiba	Oshiba Memorandum for use of the specific Categories for CCI selection for CIA ratings
SMACNA Guides	Sheet Metal & Air Conditioning Contractors' National Assoc.
TM 5-683	Facilities Engineering Electrical Interior Facilities
TM 5-684	Facilities Engineering - Electrical Exterior
USAF BIM	Minimum Requirements Version 2.1
UFAS	Uniform Federal Accessibility Standards
UFGS 23 09 00	Instrumentation and Control for HVAC
UFGS 23 09 13	Instrumentation and Control Devices for HVAC
UFGS 23 09 23.02	BACnet Direct Digital Control for HVAC and Other Building Control Systems
UFGS 23 09 93	Sequences of Operations for HVAC Controls
UFGS 25 05 11	Cybersecurity for Facility-Related Control Systems
UFGS 23 08 10	Utility Monitoring and Control System Testing
UFGS 25 10 10	Utility Monitoring and Control System (UMCS) Front End and Integration

E. Miscellaneous

1. AFCEC AGRAM 17-01 Change to AF New Construction and Major Renovation Certification Requirements
2. Air Force Pamphlet 91-210 (Contract Safety)
3. Air Force Systems Security Instruction 7700 - Communications and Information - Emission Security
4. Air Force Systems Security Instruction 7702 - Communications and Information - Emission Security
5. Air Force Sustainable Design and Development (SDD) Implementation Guidance
6. Tyndall Mass Notification System Messages
7. Tyndall Rebuild Facility Related Control Systems (FRCS) Technology Summary –Appendix L –22 Sept 2021
8. Memorandum For ALMAJCOM-FOA-DRU, Mandatory Use Policy for Air Force Carpet Acquisitions within the Contiguous U.S.
9. Draft Rule Amendments of the Environmental Resource Permitting (ERP) Program in the Northwest District, Applicant's Handbook Volume I & II, http://www.dep.state.fl.us/water/wetlands/erp/rules/draft nw.htm.
10. Recommended Standards for Wastewater Facilities (Ten States Standards)
11. Chapter 62-555 FAC General Permit of Construction of Water Main Extension for Public Water System
12. Chapter 62-600 of the Florida Administrative Code, Public Drinking Water Distribution System and Domestic Wastewater Facilities
13. Chapter 62-604 FAC Collection Systems and Transmission Facilities of the Florida Administrative Code, Domestic Wastewater Facilities, and the Wastewater Permit checklist.
14. Manual of Practice No. FD-4 Design of Wastewater and Stormwater Pumping Stations.

15. Manual of Practice No. FD-5 Gravity Sanitary Sewer Design and Construction.
16. GCEC MANUAL OF STANDARDS AND SPECIFICATIONS FOR WATER MAIN CONSTRUCTION FOR TYNDALL AFB SYSTEM
17. Guiding Principles for Sustainable Federal Buildings and Associated Installations
18. Illuminating Engineering Society of North America (Handbook)
19. Florida Fish and Wildlife Commission.
20. E.O. 13834 Efficient Federal Operations

F. Lightning Protection Requirement: Lightning Protection System (LPS) must be designed and installed IAW the following references:

AFI 32-1065	Grounding System www.wbdg.org › FFC › AFI › afi_32_1065_2017
NFPA 70	National Electric Code
NFPA 780	Standard for the installation of Lightning Protection System
UFC 3-575-01	Lightning and Static Electricity Protection System
UL 96	Lightning Protection Components
UL 96A	Installation Requirements for Lightning Protection System
UL 467	Grounding and Bonding Equipment

G. Security Requirements:

MIL-HDBK-1013:	DOD Military Handbook Design Guidelines for Physical Security of Facilities
AFI 31-101:	Air Force Instruction 31-101: The Air Force Installation Security Program
DOD 5200.1.R	Department of Defense 5200.1.R: Information Security Program Construction Standards.
ICD-ICS-705	Tech Spec
UFC 4-010-01	Unified Facilities Criteria Antiterrorism Standards for New and Existing Facilities
UFC 4-010-06	Cybersecurity of Facility-Related Control Systems
AFMAN 16-1404	Information Security Program: Protection of Classified Information and associated Appendices and Attachments

H. FAR Case No. 92-54 requires the Solicitation Package for all construction projects to reflect the government's preference for "acquisition of environmentally sound and energy efficient products and services, and an affirmative procurement program favoring items containing the maximum practicable content of recovered materials".

I. DOD Information
1. Department of Defense Manual 5200.01, Volume 1; DoD Information Security Program: Overview, Classification, and Declassification; 2012
2. Department of Defense Manual 5200.01, Volume 2; DoD Information Security Program: Marking of Classified Information; 2013
3. Department of Defense Manual 5200.01, Volume 3; DoD Information Security Program: Protection of Classified Information; 2013
4. Department of Defense Manual 5200.01, Volume 4; DoD Information Security Program: Controlled Unclassified Information (CUI); with Change 1 2018

J. Non-ERP Soil Management Guidelines, May 2020

K. Federal Green Construction Guide for specifiers. This guide can be found at: http://www.wbdg.org/design/greenspec.php

L. The Contractor must perform all work IAW with AFI, ETL, UFC and industry standards. Compliance with AF UFCs is mandatory unless the Tyndall AFB 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 must notify the Tyndall AFB POC listed in this document in writing immediately before award of the contract. Otherwise, the Contractor must be responsible for the required work.

M. All work must be IAW 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-3007F, and are available through the Government-sponsored Whole Building Design Guide located at https://www.wbdg.org.

N. If there is a conflict between these codes, regulations specifications, and/or guidance documents, the most stringent requirements must 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.

O. The government may take up to 30 days to review design documents. The contractor schedule activity for less days will be overridden by this time frame and will not be considered a delay by the government. The contractor schedule must reflect the 30-day review time.

2.0 GOVERNMENT PROPERTY INCLUDING GOVERNMENT FURNISHED INFORMATION, EQUIPMENT, AND PROPERTY (GFI, GFE, GFP)

A. Historical architectural and structural construction documents must be available for review, however field verification and documentation of existing conditions and configurations prior to construction is essential. The government takes no responsibility for errors and omissions contained in the reference material and field verification must be performed by the contractor.

3.0 MANAGEMENT, PLANNING, AND REPORTING REQUIREMENTS

A. Design submittals, 35% 65%, and 100%, will be routed with an AF Form 3000 and will be reviewed and approved/disapproved within 30 calendar days.

B. No delay damages or time extensions will be allowed for time lost in late or lost submittals. Government review times may take up to 30 days and is not considered a delay for design reviews. The contractor's schedule must include time for these 30-day reviews. The official review time starts when the CO acknowledges the receipt of the submittal.

C. Submittals pertaining to environmental issues may take up to 30-45 days for review and approval. Wetland permits may take greater than 60 days to process. Environmental 813 submittals must include drawings, locates for utilities with depth, size of lines, length of runs, underground or above ground routing, spatial coordinates, duration of the laydown yard or temporary trailer,

number of personnel, location of temporary porta toilets, etc. Delays greater than the anticipated days listed herein do not constitute a governmental delay. Contractor will be allotted a no-cost PoP extension for days over and above those listed herein.

D. All other submittals should be reviewed and approved/disapproved within 10 workdays. Submittals will be reviewed for accuracy and relevance to the project and specifications. Material Submittal documents must be submitted with AF Form 3000, Material Approval Submittal.

E. Submittal must follow the UFGS Specification Section 013300 SUBMITTAL PROCEDURES as well as the respective submittal section requiring forms, reports, drawings, samples, pictures, media recordings, manufacturer data, certifications, test reports, equipment warranty information, and the like. Submittal documents must be submitted by the Contractor to the by CO for approval. All submitted documentation must become the complete property of the Government. The Contractor must 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 must be listed on AF Form 66, Schedule of Material Submittals, and/or a Submittal Register approved by the CO.

F. Submittal naming convention will have the full contract number, Specification Section Number, etc.) a unique sequential number (-001, -001A, -002, etc.), UFGS Description and a Date. Revisions will have an alphabetic letter after the original number.

Example: FA4820FAC0029_UFGS#####_UFGSToiletAccessories_YYYY_MMDD.

G. Table of Deliverables: Project deliverables must be as shown in the following 4.0 A Table 1 - Table of Deliverables. The dates in the table are hard dates not to be exceeded without CO approval. The deliverables and scheduled activities must be provided or completed early.

H. Coordinate scheduling, sequencing, preparing, and processing of submittals with performance of work so that work will not be delayed by submittal processing. The Contractor is responsible for additional time required for Government reviews resulting from required resubmittals. The review period for each resubmittal is the same as for the initial submittal.

I. Submittals required by the contract documents are listed on the submittal register. If a submittal is listed in the submittal register but does not pertain to the contract work, the Contractor is to include the submittal in the register and annotate it "N/A" with a brief explanation. Approval by the Contracting Officer does not relieve the Contractor of supplying submittals required by the contract documents but have been omitted from the register or marked "N/A."

J. Resubmit the submittal register and annotate it monthly with actual submission and approval dates. When all items on the register have been fully approved, no further resubmittal is required.

K. Contracting Officer Review will be completed within 30 calendar working days after the date of submission for submittals requiring Government approval.

4.0 SUBMITTAL FORMAT AND TIMING AND DESIGN

4.1 Preliminary Design

This project must include a design phase in which the Contractor must evaluate specific requirements presented in this SOW, conceptual drawings, provided by government and site visit. Contractor must field verify all conditions and dimensions to provide design. The Contractor must submit a full design for approval by the Government prior to start of construction. The design must be submitted at initial/preliminary design stage for review comments and changes prior to submission of the hundred percent (100%) for construction and hundred percent (100%) completed/final design (as-builds).

4.1.1 Site Visits:

All site visit schedules must be in coordination with the 325 CES/CENMP Project Engineer and 325 CONS. Any additional site visits required to complete the required designs must be at the Contractor's expense.

4.1.2 Pre-Design and/or Design Review:

The Contractor **must** coordinate with the Contracting Officer (CO), 325 CES Engineer, and system stake holders before any initial and/or pre-design is submitted.

4.2 Project Design Phase

4.2.1 Design Data:

The initial design data must be submitted to the Government prior to the initial design data review meeting.

4.2.2 35% Initial Design Data Review/Comment:

The initial design data review meeting must be scheduled ten (10) business days after the kick-off meeting. The Contractor must setup a teleconference meeting for all possible attendees and provide agenda and documentation two (2) business days before the meeting. The Government will provide the Contractor their review comments on the design data submitted at the initial findings review meeting. The Government's review is intended to be limited to functional aspects, with limited technical review of a general cursory nature only. The following submissions must be reviewed:

1. A detailed narrative (charrette report) explaining the existing conditions, new requirements identified through user interviews, and preliminary recommendations of accommodating all identified requirements must be provided at this meeting
2. Design analysis including initial engineering calculations.
3. Preliminary design drawings/sketches.
4. Draft AF Form 66; and5. Outline technical specifications.

4.2.3 65% Design for Construction Review/Comment:

Government must have up to ten (10) business days to provide review comments. The Contractor must setup a teleconference meeting for all possible attendees and provide agenda and documentation two (2) business days before the meeting.

65% Design Submittal Requirements

1. Review comments and Contractor responses from initial design.
2. Minutes and sign-in sheet of initial design review meeting.
3. Proposed Final design analysis.
4. Proposed Final design drawings.
5. Proposed Final AF Form 66.
6. Final technical specifications.

4.2.4 100% Final Design with Red Line Changes (As-Build):

Government must have up to five (5) business calendar days to provide review comments. The Contractor must setup a teleconference meeting for all possible attendees and provide agenda and documentation two (2) business days before the meeting.

100% Design Submittal Requirements

1. Review comments and Contractor responses from 100% design.
2. Minutes and sign-in sheet of 100% review meeting.
3. Final design analysis.
4. Final design drawings.
5. Final AF Form 66.
6. Final technical specifications.
7. Include all red-line changes, with dimensions, etc.

4.3 Projected Design Timeline:

Description	**Description of Days**	**Days**	
NTP	0		
Site Investigation, Pre-Construction Meeting and Project Kickoff (within)	7 + NTP	7	
Contractor Submits Minutes	plus 3	10	
Design Charette Meeting	plus 7	17	
Contractor Submits Minutes	plus 3	20	
Government Review Minutes	plus 7	27	
35% Design Submitted (within)	plus 21	48	
Government Review of 35% Design	plus 14	62	
Contractor Schedule 35% Design Meeting	plus 7	69	
Contractor Submits Minutes	plus 3	72	
Government Review Minutes	plus 7	79	
Contractor Submit Final 35% (within)	plus 7	86	

Environmental 813/FDEP Permit – maybe be required	plus 60	146	
65% Design for Construction Submitted	plus 21 after 35% design approval	167	
Government Review of 65% Design for Construction	plus 14	181	
Contractor Schedule 65% Design Meeting	plus 7	188	
Contractor Submits Minutes	plus 3	191	
Government Review Minutes	plus 7	198	
Contractor Submit Final 65% (within)	plus 7	205	
100% Design for Construction Submitted	plus 21 after 65% design approval	226	
Government Review of 100% Design for Construction	plus 14	240	
Contractor Schedule 100% Design Meeting	plus 7	247	
Contractor Submits Minutes	plus 3	250	
Government Review Minutes	plus 7	257	
Contractor Submit Final 100% (within)	plus 7	264	
Estimate Time to the Start of Construction		264	
Contractor Begin Construction after 100% Approval	35 Weeks (245)	509	
100% Completed Design Submitted Before Final Inspection	plus 7	516	
Final Submittal of All Documents	Plus 28	544	

Table 4.3.1 Estimated Timeline in Calendar Days

4.4. Design Distribution:

All design drawings, in the number of copies stated in the table below, must be completed in AutoCAD 2019 (base version), and consist of a complete set of drawings.

Deliverables Distribution	CONS Copy	CES Copy	TOTAL
Base Access Information	0	1	2
Meeting Minutes and MFRs (Electronic Copy	1	1	2
None			
35% Initial Design with Supporting Data Submittals	1	1	2
65% Design for Construction Submittals:	1	1	2
100% Design for Construction Submittals:	1	1	2
100% Complete Design with Red Line Submittals:	1	1	2

4.5 Government Review:

A The Government's review is intended to be limited to functional aspects, with limited technical review of a general cursory nature only. Refer to paragraph 4.2 for the Government review during design period. Any review by the Government of technical items must 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. The Contractor must comply with the review comments in the development of data for the next submittal. If any review comment requires clarification and/or amplification to assure compliance the Contractor must notify the COR or authorized representative in writing. If the Government specifically asks a question via the review comments and requires clarification or the Contractor does not concur with or takes exception to a review comment then the Contractor must submit the review form with comments annotated by the Contractor with a "D" - do not concur, "E" - exception, or "X" - delete, must have an explanatory note added to justify the noncompliance with the comment. The Contractor must furnish these annotated comments to the Government no later than seven (7) calendar days after receiving the comments. If the Contractor agrees with the review comments, then it must be reflected in the next submission.

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 must 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 must not be construed as a complete check but will indicate only that the general method of construction, materials, detailing, and other information are satisfactory."

4.5.1 Contractor Response to Review Comments:

The Contractor must respond in writing to each of the review comments that they take exception to within 7 calendar days after receipt of the comments. If the Contractor disagrees with or takes exception to the comments, the Contractor must include an explanation of why they disagree in their response back to the Government. Otherwise, the comment resolution(s) must be incorporated into the next design submission.

4.6 Verification of Existing Conditions and Site Survey

Use of existing condition data provided by the Government conveys acceptance and as such does not relieve the Contractor of liability associated with performance as the Designer of Record (DOR). The Contractor must be solely responsible for verification and validation of existing conditions, coordination of existing conditions in parallel with proposed requirements, and above and below-grade condition assessment. The Contractor must coordinate discussions with the CO, project manager, and system stakeholders before any initial design is submitted.

4.6.1 Field Measurements:

The Contractor must be required to make his own field investigations to verify dimensions and other information shown on government furnished reference drawings.

4.6.2 Site Survey

Site survey data must be submitted to the Government within seven (7) calendar days of receipt via AF 3000 Material Approval Submittal.

4.7 Designer of Record:

The Contractor is accountable for all aspects of the completed design and as-built drawings under all applicable Federal, State, and local laws, regulations, and base-specific standards. The designer of recorded must stamp all drawings.

4.8 Contract Drawings:

Drawings must be prepared on AutoCAD 2020 format. Drawings must be delivered in three (3) hard copies, standard black line quality paper, at review stages in the number listed in paragraph4.4.3. All submittals must go through the 325 CONS office, and must be half-size. The drawings must be drawn to appropriate scales and dimensioned completely and accurately. All dimensions must be shown in Imperial units. All contract drawings must be well prepared, complete, and accomplished in accordance with the best professional practice to show clearly and concisely the type and extent of work to be performed. Three (3) hard copies of As-Built drawings, 65% and Final, must be submitted to the government upon completion of construction and must be reviewed for accuracy. Upon approval, the Contractor must provide one (1) electronic version of the As-Built drawings in both AutoCAD 2020, and PDF to the government on CD. Standard building material indications and symbols for architectural items and for mechanical and electrical equipment must be used to the greatest extent possible size.

4.8.1 Drawing Standards:

Follow all drawings and CAD standards at www.wbdg.org.

4.8.2 Primary Drawing Index

Provide Structural, Civil, Landscape, Architectural, Interior Design, Life Safety, Fire protection, Mechanical, Electrical, Plumbing, and Telecom drawings and details index.

4.8.3 35% Initial Design:

All specified initial design data meeting comments must be satisfied and incorporated into this submittal. The definitive direction and fully developed concepts of the proposed design document must be illustrated and clearly indicated at this submittal.

4.8.4 65% Design

All specified 35% design data meeting comments must be satisfied and incorporated into this submittal. The fully developed concepts of the design document must be illustrated and clearly indicated at this submittal, detail drawing for construction must be included.

4.8.5 100% Design for Construction:

All specified hundred percent (100%) requirements, comments, and corrections resulting from the hundred percent (100%) review must be satisfied and incorporated into this submittal. All documentation and recommendations must be fully developed into a comprehensive design package.

4.8.6 100% Complete Design with Red Line Changes:

All red-line changes, comments, and corrections resulting from the final construction (installation) must be satisfied and incorporated into this submittal. All documentation and recommendations must be fully developed into the final design package. This submittal is expected to be used as a final progress (inspection) set of drawings for final review of the document deliverable.

4.9 Submittals

Continues following page.

4.9 A Table 1 - Table of Deliverables
(Appendix E, Schedule, 3064, and 3064 Template has the same information in the AF66 Tab)

Document	Copies				Max Delivery Timeframe
	325 CES		325 CONS		
	Electronic	Hard Copy	Electronic	Hard Copy	
Standard Meetings and Reports					
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	NLT 0900 the day following - Daily
HAZMAT Forms 81 and 82	1	1	1	1	10 Days prior to preconstruction meeting
Work Clearance Request (AF Form 103A)	1	1	1	1	10 Days prior to preconstruction meeting
Material Approval (AF Form 3000)	1	0	1	0	At the 100% 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
Temporary Airfield Construction Waiver	1	1	1	1	Prior to start of construction
Draft DD1354	1	0	1	0	After Award to be provided to contractor
Work Activities					
NTP	1	0	1	0	NA
Kickoff meeting with all stakeholders	1	0	1	0	5 Days from NTP
IMS, WBS and AF 3064/3065	1	0	1	0	15 Days from NTP
Health and Safety Plan (HSP) or (APP)	1	0	1	0	19 Days from NTP
Contractor Site Investigation	1	0	1	0	20 Days from NTP
Site Investigation Memorandum	1	0	1	0	22 Days from NTP
Design Quality Plan (DQCP) or (DQSP)	1	0	1	0	Prior to Design Starting
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
Charrette Meeting					24 Days from NTP
Charrette Meeting Minutes Acceptance and Approval	1	0	1	0	10 Days from Charette Meeting
35% Design w/ AF Form 3000	1	3	1	0	40 Days from Charette and/or NTP

Document	Copies				Max Delivery Timeframe
	325 CES		325 CONS		
	Electronic	Hard Copy	Electronic	Hard Copy	
35% Design Review and Meeting	1	0	1	0	30 Days from 35% Design Submittal or 70 Days from Charette and/or NTP
35% Design Resubmittal if submittal was disapproved	1	0	1	0	10 Days from 35% Design Disapproval or 80 Days from Charette and/or NTP
35% Design Final Submittal and Approval	1	0	1	0	10 Days from 35% Design Re-Submittal or 90 Days from Charette and/or NTP
65% Design w/ AF Form 3000	1	3	1	0	10 Days from 35% Design Re-Submittal or 90 Days from Charette and/or NTP
65% Design Review and Meeting	1	0	1	0	30 Days from 65% Design Submittal or 140 Days from Charette and/or NTP
65% Design Resubmittal if submittal was disapproved	1	0	1	0	10 Days from 65% Design Disapproval or 150 Days from Charette and/or NTP
65% Design Final Submittal and Approval	1	0	1	0	30 Days from 65% Design Submittal or 140 Days from Charette and/or NTP
100% Design w/ AF Form 3000	1	3	1	0	20 Days from 100% Final Design or 240 Days from Charette and/or NTP
100% Design Review and Meeting	1	0	1	0	30 Days from 100% Design Submittal or 270 Days from Charette and/or NTP
100% Design Resubmittal if submittal was disapproved	1	0	1	0	10 Days from 100% Design Disapproval or 280 Days from Charette and/or NTP
100% Design Final Submittal and Approval	1	1	1	1	10 Days from 100% Design Re-Submittal or 285 Days from Charette and/or NTP
Test and Balance (TAB) Plan	1	0	1	0	At 100% Design Approval
All Material Submittals	1	0	1	0	At 100% Design Approval or 30 Days from design Approval with CO approval.
Demolition Plan when demolition activities	1	0	1	0	Prior to 100% Design Approval
Environmental Plan (EPP)	1	0	1	0	Prior to 100% Design Approval
HAZMAT Management Plan	1	0	1	0	Provided as part of the EPP
Waste Management Plan	1	0	1	0	Provided as part of the EPP
Storm Water Pollution Protection Plan (SWPPP)	1	0	1	0	Provided as part of the EPP
Construction General Permit (CGP)	1	1	1	1	State permitting as required
Construction General Permit Notice of Intent (CGP-NOI)	1	0	1	0	State permitting as required
Environmental Resource Permit (ERP)	1	1	1	1	State permitting as required
Notice of Termination (NOT)	1	0	1	0	State permitting as required
Red Line drawings Submitted	1	0	1	0	15 Days prior to Start Work

Document	Copies				Max Delivery Timeframe
	325 CES		325 CONS		
	Electronic	Hard Copy	Electronic	Hard Copy	
Draft Phasing Plan	1	0	1	0	10 Days prior to Start Work
Final Phasing Plan	1	0	1	0	5 Days prior to Start Work
Mobilization of Contractor	0	0	0	0	10 Days after 100% Design Approval or before with CO approval
Job Start Meeting	1	0	1	0	After 100% Design Approval or before with CO approval
Implementation of the Design					100 to 200 Days
Red Zone Meeting	1	0	1	0	60 Days Prior to Beneficial Occupancy Date (BOD)
Real Property requirements are included in the many of the next tasks.					
Transfer & Acceptance of Military Real Property Interim (DD 1354)	1	1	1	0	Prior to Pre-Final Inspection and signed for BOD.
EMCS Points	1	0	1	0	Prior to Pre-Final Inspection
EMCS Graphics	1	0	1	0	Prior to Pre-Final Inspection
KTR Punch List Pre-Final Inspection	1	0	1	0	Pre-Final Inspection
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
Draft Operations & Maintenance Manuals	1	1	1	1	5 Days prior to Final Inspection and/or prior to conducting training
HAZMAT Form 83	1	0	1	0	3 Days Prior Final Inspection
Construction Red Line Drawings	1	0	1	0	3 Days Prior Final Inspection
Other 1354 Checklist Listed Items	1	0	1	0	3 Days Prior Final Inspection
KTR Punch List Final Inspection	1	0	1	0	3 Days Prior to Final Inspection
EMCS Equipment field installed correctly, verified and panels have wire tags	1	0	1	0	3 Days Prior to Final Inspection
EMCS Points Correct and Verified at front end	1	0	1	0	3 Days Prior to Final Inspection
EMCS Graphics Correct, Links work and Verified at front end	1	0	1	0	3 Days Prior to Final Inspection
Builder Spreadsheet returned with equipment information	1	1	1	1	3 Days 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
Interim 1354 Signed by Real Property for partial turnover of building areas	1	0	1	0	Prior to BOD acceptance and completion of CONS BOD form.
O&M's Review	1	1	1	0	5 Days After Final Inspection
As-Built Design Documents	1	3	1	0	5 Days After Final Inspection
As-Built Design Drawings	1	3	1	0	5 Days After Final Inspection
As Built Review Meeting	1	1	1	1	10 Days After Final Inspection

Document	Copies				Max Delivery Timeframe
	325 CES		325 CONS		
	Electronic	Hard Copy	Electronic	Hard Copy	
As Built Review Comments	1	0	1	0	15 Days After Final Inspection
O&M's Acceptance	1	1	1	0	15 Days After Final Inspection
As Built Comments Acceptance	1	0	1	0	20 Days After Final Inspection
As Built Approval	1	0	1	0	20 Days After Final Inspection
Transfer & Acceptance of Military Real Property Final (DD 1354)	1	1	1	0	5 Days after Final Design Approval or 10 days after placed in service date
Warranty	1	1	1	0	10 Days after Final Design Approval
Final Tabbed, divided, and TOC O&Ms to user	1	3	1	1	10 Days after Final Design Approval
Training Information	1	0	1	0	Prior to conducting training
User training	1	1	1	0	15 Days after Final Design Approval

B. Electronic copies of all design deliverable documents must be provided on CD or DVD discs (hand written labels will not be accepted – see government example for labeling following: project name, project number, project title, contract number, date of CD submission, "Unclassified", name of the submission i.e. 35% design, Company Name), 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 must 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 must be unlocked and fully editable.

C. Builder Template

A builder template will be provided to the contractor to complete for real property items that were installed per the scope of work.

4.9.1 WORK BREAKDOWN STRUCTURE (WBS)

A 3064 or equivalent spreadsheet is used for the WBS. The task number, start and stop dates, Value for the task will be provided.

4.9.2 SCHEDULE AND PLANNING REQUIREMENTS

See Section General Requirements

4.9.3 PROJECT PLANNING CHART (PPC) and/or CONSTRUCTION PLANNING CHART (CPC)

Provide as needed.

4.9.4 CONTRACT PROGRESS SCHEDULE (AF 3064)

A. The Contractor must 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 4.0 Table 1 - *Table of Deliverables*. The line items associated project percentages, and dates must accurately depict the planned work to be performed.

B. A template spreadsheet must be provided by the government to use for progress reporting.

C. The progress schedule must be signed by CE recommending approval and approved by the CO.

4.9.5 CONTRACT PROGRESS REPORT (AF 3065)

A. The Contractor must submit AF 3065 as described in 4.0 A *Table 1 - Table of Deliverables*. This report must 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 must be identical to the work elements and percentages on the AF 3064. The Contractor must obtain either the QA Inspector or the Government contract inspector's acceptance by signature of the actual reported progress prior to submission to the CO. Additionally, the Contractor must submit the updated AF 3064 as an attachment to the AF 3065.

4.9.6 SUBMITTING SCHEDULES AND REPORTS

A. Contract Progress Report. Contract Schedules and Reports must 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 must be turned in for each week at the end of the week when construction begins.

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

4.8 STATUS REPORTING

4.9 REPORTING REQUIREMENTS FOR FIRM FIXED PRICE (FFP)

4.10 CONTRACTOR'S PROGRESS, STATUS, AND MANAGEMENT REPORT (CPSMR)
3064 is used for this project.

4.11 HEALTH AND SAFETY PLAN (HSP) OR (APP)

A. See General Safety Requirements.

B. The Superintendent cannot be dual hatted with the Safety Officer. The SSHO must be employed by the Prime Contractor. The contractor must provide a Health and Safety Plan prior to beginning any work on the job site.

4.12 QUALITY SYSTEM PLAN (QSP)

A. The Superintendent cannot be dual hatted with the Safety Officer. The Safety office can be dual hatted with the Quality Manager. The Site Safety and Health Officer (SSHO) may have other duties such as Contractor Quality Control (CQC) System Manager provided that experience requirements for those positions are met. However, the CQC System Manager and Superintendent must not be the same person. CQC System Manager, Construction Superintendent and SSHO must be employed by the Prime Contractor.

B. The Contractor is responsible for quality control and must establish and maintain an effective quality control system in compliance with FAR Clause, 52.246-12, Inspection of Construction. The quality control system must consist of plans, procedures, and organization necessary to manage all delivery orders to produce end products which comply with the contract requirements. The system must cover all construction operations, both on site and off site, and must 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.

5.0 MEETING, CONFERENCE/TELECONFERENCE REQUIREMENTS

A. Upon award the Contractor must attend the following meetings at a minimum: Project Start and Pre-Construction Job Start, 35%, 65%, and 100% Design Review, Corrected Design Review, Incremental Site Inspection, Test and Balance, Commissioning, Pre-Final Inspection, Final Inspection, and other meetings. The Contractor must participate in other meetings as needed to facilitate the project's work, and as required by the CO.

B. Job Start Meeting

1. The Contractor must attend a Project Job Start at TAFB. The Contractor must 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 must, 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.

2. 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 4.0 A Table 1 - Table of Deliverables of the meeting, the Contractor must submit minutes for approval.

C. Contractor will be responsible to take and distribute meeting minutes to all those in attendance.

D. Minutes must be distributed to attendees for review, comment, and correction the time listed in 4.0 A Table 1 - Table of Deliverables of meeting events.

E. Unedited digital copies of all Contractor recordings must be provided to the Government within 3 days of the recording date.

5.1 RED ZONE MEETING

A. Construction Red Zone Activities: Once construction is 80% complete for each facility or 60 days prior to beneficial Occupancy Date (BOD), the Contractor must conduct weekly Red Zone Meetings instead of the regular weekly Project Update meetings. Red Zone Meetings must cover not only the construction progress, but also project close out activities, including commissioning activities, training activities, and the preparation of project close out documents. Meeting requirements and Attendees for the QA Inspector scheduled and conducted meeting can be found at P:\Projects\Templates\Red Zone Briefing.

B. Provide documentation of Total Building Commissioning in accordance with Specification Section 01 91 00.15 TOTAL BUILDING COMMISSIONING. Include, at a minimum, design phase documentation, commissioning team qualifications, commissioning submittals, commissioning plan and anticipated commissioning schedule.

6.0 CONTRACTOR DOCUMENTATION

A. The Contractor must also create and submit for approval a 4.0A Table 1 - Table of Deliverables, which includes the documents required by the approved Submittal Register. The Contractor must use AF Form 66, Schedule of Material Submittals. The modified submittal register must include design phase submittals, construction phase submittals, and project close out submittals. It must also include copies of any submittal forms likely needed by the construction Contractor. The submittal register must include the documents listed below, in addition to other documents, as applicable.

B. Design Package

1. The Contractor must prepare and submit for review and approval a design package. The package must be submitted at the 35%, 65%, and the 100% design level. (4.0 A Table 1 - Table of Deliverables for deliverable dates.) The various required elements of the design package are discussed and detailed in other sections of this document.
2. The design of the building and the materials selected must be high quality, durable and easily maintained. All parts of the project site and building design must follow the current version of the UFGS and the Tyndall AFB Installation Facility Standards (IFS).

3. The building exterior design and finishes must comply with the current Tyndall Air Force Base (AFB) Installation Facilities Standards (IFS). All Exterior Paint and Coatings, Storefront and Entry Doors, Door Glazing, Window Frames and Glazing, Louvers, Hardware, Lighting, Roof Systems and Roofing, Wall Panels, Gutters, Downspouts, Scuppers, Railings, and other design related features are to comply with the Architectural characteristic of the Current Tyndall AFB IFS. The 325th Base Architect at Tyndall AFB will make final selections related to all colors and textures for interior and exterior of building from manufacturer's standard color range provided during submittal phase from the contractor. In general, no bronze or brown exterior finishes will be included on the project.

4. Government Review: The Contracting Officer or the authorized representative may furnish the contractor review comments on the data submitted at the 35%, 65%, 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 must 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 must 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 must furnish these annotated comments to the Government no later than 5 calendar days after receiving the comments. The contractor must comply with the review comments in the development of data for the next submittal.

5. The Contractor must provide 100% Final Design package for approval. All previous Government comments must 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

1. The Contractor must use AF Form 66, Schedule of Material Submittals. The modified submittal register must include design phase submittals, construction phase submittals, and project close out submittals. It must also include copies of any submittal forms likely needed by the construction Contractor. The submittal register must include the documents listed below, in addition to other documents, as applicable. Follow UFGS Specification Section 013300 SUBMITTAL PROCEDURES and respective specification section submittal requirements.

2. The Contractor must provide 35%, 65%, and 100% design for review and comment (see 4.0A Table 1 - Table of Deliverables). This package must 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.2. Contractor must 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 1 for submittal details.

3. Partial Design Submittal List of Requirements
   a. AF Form 3000 documenting the submittal Contents.
   b. Table of Contents.
   c. Construction documents.
   d. Fully populated AF Form 66; Schedule of Material Submittals.

6.1 NOTIFICATION REQUIREMENTS

The Contractor must also create and submit for approval a 4.0A Table 1 - Table of Deliverables, which includes the documents required by the approved Submittal Register. Table 1 must indicate when documents must be submitted for review and approval. The Government must have up to the time listed in Table 1 to review submittal documents.

6.2 PERMITS

A. The Contractor must develop, coordinate, and be responsible for labor, professional services and other costs associated with acquiring 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 must process an Air Force Form 103, Work Clearance Request, through the local Base Civil Engineer (BCE) office. The Contractor must comply with applicable permit conditions, environmental protection policies and appended guidelines.

B. The contractor must comply with all applicable permit conditions and must keep all permits "current" until construction is 100% complete. The contractor must be required to provide the permits to the Government as required.

C. If any compliance/enforcement organization notifies the contractor that a certain permit is not required, the government requests a copy of the official notification, from that organization, that the permit is not required. Documentation must be received by the government prior to work commencing.

D. The Contractor must thoroughly investigate the requirements for permitting of air quality, potable water, wastewater, stormwater discharge, NPDES, dredge and fill, local construction for disruptions of vehicular traffic and base utility systems, and other permits during design. The Contractor must determine permit requirements as part of the Design Phase.

    1. Some potential permits for the project:
        a. FDEP/NFWMD Environmental Resource Permitting in accordance with FAC 62-330
        b. FDEP/NPDES stormwater construction permit in accordance with FAC 62-621
        c. Environmental Protection Plan (EPP)

6.3 PHOTO DOCUMENTATION

A. Photos on the Airfield will not be required as part of this project.
B. No independent photographing must be taken on the Airfield by the Contractor personnel and/or his subcontractors.
C. Photography of any kind must be coordinated through the installation, customer, or facility POC. Photo documentation must be loaded to the Data Collaboration Site as specified at the project level, as requested by the base POC or directed by the QA Inspector and/or PM.
D. If photos are taken, the Contractor must use a consistent file naming convention for photographs throughout the project. All photographs submitted must have unique filenames. Photography of any kind must be coordinated through the QA Inspector. Photography of spaces beyond the SOW is prohibited.

6.4 PROJECT DATA/PROJECT DELIVERABLES

Data must be in the form of spreadsheets, and pdfs.

6.5 PROTECTING UNCLASSIFIED DoD DATA

A DOD safe site must be used for large files transfers.

6.6 SECURITY BREACH NOTIFICATION

A contractor must notify the government when their files have been infected with a virus that may have been transmitted to the government.

6.7 DATA COLLABORATION SITE

A contractor site must be used as long as the files are scanned prior to upload.

6.8 CONSTRUCTION WORK PLAN

The Contractor must prepare a Construction Work Plan.

6.9 TECHNICAL REPORTS

Inspection reports and other reports must be required for this project.

6.10 TECHNICAL PLANS AND REPORTS

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

7.0 SITE ACCESS BADGES

A. Registration Process:

DBIDS Pre-Enrollment: Individual credential recipients will be required to complete the virtual pre-enrollment process and provide the alpha/numeric number and a legible front/back copy of a valid proofing document with photo (DL, Passport, etc..) to their company.

1. Companies will provide required information to their Authorizing Officials (AO).
2. AO's will forward information to the VCC via SAFE files for processing.

B. The pre-enrollment process can be located at https://dbids-global-enroll.dmdc.mil/ or by scanning the QR code below.

1. This website allows an individual to pre-enroll themselves prior to credential issuance.
2. It is mobile/computer friendly.

C. A member from the VCC will contact the AO to retrieve credentials for qualified personnel. Disqualifying personnel will be denied access.

D. AO's will disperse credentials to the appropriate contractor representatives.

E. The average waiting period to receive base access credentials is 7-14 business days.

F. This pre-enrollment DOES NOT submit information for background checks.

G. For individuals who have not been processed to receive a DBIDS card for unescorted access.

H. An escort (DBIDS card holder WITH escort privileges/CAC holder) must arrive with the visitor at the VCC to receive a visitor pass.

I. Retirees/Dependent ID cards are not authorized to escort contractors. These IDs are only used for benefit purposes. Retiree/Dependent card holders who will be working as a contractor must apply for a DBIDS credential as well.

J. Initial visitor pass can be issued up to 14 days.

K. Additional visitor passes after 14 days will require an on-the-spot background check and they may receive an escorted pass up to 30 days.

L. An individual may not receive more than two 30-day passes.

M. What are YOUR responsibilities as a SA/COR?

1. Ensure you are on a DBIDS authorization to submit letter w/in our office (updated annually).
2. Ensure the contractors complete the DBIDS pre-registration for ALL members needing access.
3. Weblink: https://dbids-global-enroll.dmdc.mill/
4. Ensure the contractor submits a scanned copy of all personnel Driver's License.
5. Ensure Sheet 1 of the excel spreadsheet is accurately filled out (to include all 6-digit A/N codes).
6. Accurately fill out Sheet 2 of the excel spreadsheet (ensure escort privileges are indicated)
7. Submit completed spreadsheet and DLs to 325 SFS/VCC (325th CES/CENMP Project)
8. Org Box: 325sfs2586@us.af.mil
9. Allow 7-14 business days.
10. Pick up DBIDs cards when complete and distribute to contractors.

N. Individuals requiring access for more than 60 days need to apply for a long term DBIDS credential through the on base unit they're contracted through. The Contractor must 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 must immediately be delivered to the CO for cancellation upon release of any employee. All Contractor and sub-contractor personnel must wear identifying markings clearly defining the company for whom the employee works.

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

8.0 WORKSITE ACTIVITIES AND COORDINATION

Described as follows.

8.1 REMOTE and/or AUSTERE SITES

All work is performed at Tyndall Air Force Base. There are remote areas of the base.

8.2 COORDINATION OF ACTIVITIES

A. Pre-proposal Site Visit: Prior to submitting a proposal for this project, prospective Contractors are required 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).

C. All site visit schedules must be in coordination with the 325 CES/CENMP Project Engineer and 325 CONS. Any additional site visits required to complete the required designs must be at the Contractor's expense.

D. The Contractor must coordinate with the Contracting Officer (CO), 325 CES Engineer, and system stake holders before any initial and/or pre-design is submitted.

8.3 RADIOLOGICAL WASTE, HAZARDOUS MATERIAL AND HAZARDOUS WASTE PERMITTING AND REPORTING

The Contractor must 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 must be handled in accordance with applicable federal, state, and local requirements. The Contractor must 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.

8.4 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.

8.5 ENVIRONMENTAL PROTECTION

A. The All projects must minimize environmental pollution and damage that may occur as the result of construction operations. The environmental resources within the project boundaries and those effected outside the limits of permanent work must be protected during the entire duration of a project. Contractor must 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 must assume a strict and cautious position in responding to reports of other materials, which must 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 must 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 must 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.

8.6 ENVIRONMENTAL PERMITS

A. Tyndall Air Force base will be considered a Community Development Center in regard to the requirements for providing a SWPPP with the EPP. The project size will not be used to deviate from this requirement. An exemption form 10-2 is not to be processed at Tyndall Air Force Base.

B. 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.

C. 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.

D. Typical environmental permitting process for execution methods:

1. Design-Build: The prime contractor's A/E must 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.

2. As-built certifications must be staffed by the contractor through 325 CES/CEIE for signature and forward to FDEP.

E. Sanitary Sewer and Drinking Water Permits: The A-E must 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.

8.7 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 must prepare the design so that it is entirely compatible with any and all requirements of the NEPA documents.

8.8 ENVIRONMENTAL PROTECTION PLAN (EPP)

A. The Contractor must prepare an Environmental Protection Plan when dealing with Chemical use, hazardous materials, spill prevention, or any other process requiring the EPP. See Appendix E - Environmental Protection Plan Guidance for requirement that should be included in the EPP. File Location: P:\Projects\Templates\Environmental Guidance.

B. The base Environmental group is requiring a SWPP for all work that disturbs the soil. Provide the plan as part of the EPP.

8.9 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. (NA)

8.10 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 must 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 must 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).

8.11 HAZARDOUS WASTE

A. The Contractor must 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 must 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 must stop all work in the event 325 CES/CEIE

identifies noncompliance with federal and state regulations and must correct any discrepancies immediately within 2 hours of notification. All hazardous waste must 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 must 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 must include the proper DOT shipping name, UN or NA, EPA waste number, generator information, and accumulation start date. The label must be placed on the side of the drum. All drums used to store hazardous waste must be non-leaking and safe to handle. Contractor must be responsible for over packing drums that are rusted, dented, or leaking. Drums and/or over-packs must be provided by the contractor. All drums must be "new" DOT approved containers.

D. Hazardous waste transportation and disposal must be coordinated through 325 CES/CEIE. The contractor must be responsible for transportation and disposal of all hazardous waste at an EPA approved treatment, storage, disposal facility (TSDF). The transportation and disposal facilities must be approved by 325 CES/CEIE prior to their use. Manifests must be signed only by 325 CES/CEIE. Drums must be disposed of within 90 days of placing the first drop in the container.

E. Solid, Liquid, and Gaseous Contaminants: The Contractor must 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, must be covered or of such a design to fully confine the material to prevent dust dissemination.

G. Management of Liquid Wastes: The contractor must 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 must be coordinated with the Base Environmental Element through the Contracting Officer and must be approved by the Base Environmental Element. Waste material for disposal must 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 must 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.

8.12 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 must 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 must 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 .and 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 must be responsible to ensure all sub-contractors comply with this section.

E. The contractor must 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 must notify the Contracting Officer upon encountering any material thought to be hazardous that was not generated by the contractor during the work. The Government must be responsible for characterization, transportation, storage, and disposal of the material if it is determined to be hazardous.

H. Forms - AF 81, 82, and 83 will be submitted for Government review. The AF 83 will be maintained and sent in monthly for Government review.

I. Fluorescent Light fixtures – Certain Light fixtures may contain PCB ballasts. The light bulbs must be processed with the recycle center. The base does not allow good light bulbs to be crushed and must be recycled.

J. Burning: Burning of any type of materials will not be permitted to accomplish the work.

K. Disposal of wastewater will be as specified below:

1. Wastewater 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 wastewater off-Government property in accordance with all Federal, State, Regional and Local laws, and regulations.
2. 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. A permit is required to be obtained if the discharge of surface water flows to Statutory Surface Water. Many drainage ditches meet this requirement unless it already is exempt from the state.

8.13 PETROLEUM, OILS AND LUBRICANTS (POL)/TANKS

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

8.14 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.

8.15 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.

8.16 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.

8.17 LEAD AND 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.

8.18 RECORDING AND PRESERVING HISTORICAL AND ARCHEAOLOGICAL FINDS

A. All items having any apparent historical or archeological interest, which are discovered during any construction activities, must be carefully preserved. The Contractor must leave the archeological find undisturbed and must immediately report the find to the Contracting Officer so that the proper authorities must be notified.

B. 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 must cease and 325 CES must be contacted if human remains, archaeological deposits, or paleontological remains are encountered at any point during the project.

C. If archaeological monitoring was not required by the 813 forms, and human remains, archaeological deposits, or paleontological remains are encountered at any point during the project, then all ground-disturbing work must cease and 325 CES must be contacted. The archaeological monitoring will be performed by archaeologist provided by 325 CES; and the contractor must verify the government provided archaeologist is at the job site before any digging resumes.

9.0 PROSECUTING THE WORK

Roles and Responsibilities

A. Key personnel for this project include the CO, QA Inspector, Government Project Manager, Government Inspector, and Commissioning Authority (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 QA Inspector and Contract Administrators. The CO operates in accordance with laws, including the Federal Acquisition Regulation (FAR).

C. Government Inspector/ QA Inspector

1. 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 QA Inspector and the PM or works closely with those individuals. While the Government Inspector will frequently perform inspections, only the CO is empowered to accept or reject the Contractor's work.

2. The QA Inspector advises 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 QA Inspector 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 QA Inspector and the Contractor will be frequent. The QA Inspector will often visit the project site throughout the period of performance. The QA Inspector may or may not also fulfill the roles of the Government Project Manager and/or the Government Inspector.

3. The Contractor must advise the Government 48 hours before performing any concrete pouring, backfilling, wall covering or test operation that will encase or cover his work. For soil compaction tests, a minimum of 72 hours notification must be required.

D. Government Project Manager

1. The Government Project Manager (PM) is a caretaker, problem solver, and recommender for the project, throughout all 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 must 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.

9.1 COMMISSIONING AGENT

Follow the UFGS sections on Commissioning. The CxA must be a certified, experienced, proficient third-party professional.

A. Contractor Superintendent

1. The superintendent must be on the job site while work is in progress. The contractor must provide in writing the name of the superintendent and the scope of their responsibility, experience, qualifications, and authority to act for the contractor. Clearly define these items prior to approval.

2. If the superintendent is changed this must be designated in writing immediately, notifying the CO. The contractor must reinstate the experience, qualifications, and authority to act for the contractor. Clearly define these items prior to approval.

10.0 SITE WORK

A. See Appendix A for work scope.

B. The Contractor must 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 must be based on the project description, other data furnished in this SOW, and information covered during kick-off meeting.

10.1 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 must employ best management practices consistent with the Florida Development Manual, Chapter 6, Stormwater and Erosion and Sediment Control Best Management Practices for Developing Areas.
B. Provide erosion and sediment control measures that meet the requirements of the FDEP ERP. The downstream side of the sites will be protected from sediment escaping the site with the use of silt fence. The silt fence will be maintained per the direction stated in the construction details.
C. The existing and proposed catch basins and storm water inlets will be protected with either a dandy bag type of protection or be blocked with a filter sock per the construction details. Each site will have a construction entrance to assist in the removal of dirt from construction vehicle tires prior to exiting on to the public roadways. There is a provision in the plans for the contractor to clean any mud and soil off the public roadways as needed. Each culvert outlet/inlet on the Honor Guard site and each curb cut outfall on both sites will have rock channel protection at each end to prevent erosion of the grassed banks.

10.2 UTILITIES (EXISTING)

A. The Contractor must contact the base utilities Contractor (TECO Gas and GCEC) for drawings for the base electrical, water, and natural gas systems. The Contractor must familiarize himself with drawings and coordinate all connections with the base utilities Contractor.

B. Any utility lines shown on the record drawings (or made known to the Contractor) and damaged during construction work must be repaired immediately by the Contractor at no cost to the Government.

C. Contractor is responsible for coordinating and paying connection fees to Gulf Coast Electrical Company and Gulf Power if necessary for electrical and GCEC for water hook-up.

D. The sanitary sewer system is owned by Tyndall AFB and managed by Alutiiq.

E. Utility Privatization
The water, electric, and natural gas infrastructure on Tyndall AFB has been privatized. Any infrastructure which must be constructed from the facility's points of demarcation to the privatized utility, must be completed by the system owner. The prime contractor must enter into a service connection agreement with the system owner and will be responsible for paying the associated lump sum connection charge.

10.3 LOCATES

A. It must 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 must request referenced locations and permit at least 10 days prior to scheduled work begin. The Contractor must exercise due care and take reasonable steps to avoid injury or to otherwise interfere with lines where positions have been provided. The Contractor must hand dig only, within 5 feet in any direction of a located utility. If sufficient information is not available, the Contractor must 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 must 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 must request a BASE CIVIL ENGINEERING WORK CLEARANCE REQUEST at least 10 working days in advance.

10.4 OUTAGES

A. Definition: Utility outages must 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 must be coordinated with the CO and QA Inspector Notice of the necessity for an outage must 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 must 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 must continue until all utilities are restored to the effected 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.

10.5 DEMOLITION

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

1. 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.
2. Remove and dispose of all demolition and general construction debris from the site (off base).
3. 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.

4. Limit disturbance to the natural vegetation, wildlife, and base activities to the greatest extent practicable.

B. SALVAGEABLE MATERIALS

Contractor must turn in salvageable goods to the appropriate base agency. The Contractor must 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.) must be recycled and/or disposed in accordance with base policies. The Contractor must 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 must comply with all provisions of 40 CFR 260 through 281 regarding the generation, storage, and disposal of hazardous waste. The Contractor must submit a hazardous waste management plan to Contracting Officer for approval by 325 CES/CEI. The Contractor must not commence any work until this approval is obtained. The Contractor must stop all work in the event 325 CES/CEI identifies non-compliances with federal or state regulations and must 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 must become the property of the Contractor and must be handled, transported, stored, and disposed of off-base by the Contractor. Such material must 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 must provide CO the waste manifest tickets for all disposal runs associated with the abatement project.

D. SITE EXCAVATION AND RESTORATION

1. 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.
2. All borrow material must come from off-base.

11.0 CONSTRUCTION OPERATION SERVICES

Described as follows.

11.1 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 must conform to all specifically referenced and otherwise applicable requirements during performance of the work as described in the SOW:

B. The Contractor must 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 must be signed and sealed.

C. The Contractor must execute engineering tasks as required during construction. The Contractor must plan, develop cost estimates, perform scheduling, install, construct, and test IAW this project's requirements.

D. The Contractor must perform incidental support such as designing, planning, programming, scoping, studying, investigating, evaluating, and consulting on traditional engineering and construction efforts.

E. The Contractor must also provide training and operational support to Government and other Contractor personnel regarding the operations and maintenance of equipment, systems, and facilities. The Contractor must 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: No government furnished equipment will be provided for construction.

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 must 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 100% it must be acceptable for the contractor to order materials and equipment. But this must be contingent on the Contractor obtaining CO approval.

J. Within the time listed in 4.0A Table 1 - Table of Deliverables of approval of the corrected 100% Design, and IAW the approved Construction Schedule, the Contractor must 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 must only proceed upon approval of the CO.

L. Within the time listed in 4.0A Table 1 - Table of Deliverables of approval of the corrected 100% Design, and IAW the approved construction schedule, the Contractor must 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 must be permissible to initiate limited construction activities (such as ordering long lead time major components) prior to acceptance of the completed design, but this must be contingent on the Contractor obtaining approval to do so. The Contractor must 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 must attend the Pre-Construction Meeting. The meeting will facilitate construction phase ongoing coordination and communication between key stakeholders and the Contractor necessary for a successful construction project.

N. The Contractor must accomplish construction tasks in accordance with the submitted and approved Construction Schedule.

12.0 INSPECTIONS

A. The Contractor must advise the Government 48 hours before performing any concrete pouring, backfilling, wall covering. or test operation that will encase or cover his work. For soil compaction tests, a minimum of 72 hours notification must be required.

B. Inspection Acceptance

Pre-final inspection, and final inspection acceptance must be completed by the Contractor with the following additional provisions:

1. The Contractor must 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 must 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 must 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 must notify the QA Inspector in writing five (5) working days in advance for a final inspection and must 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 must be accomplished within the period of performance.

12.1 PRE-FINAL INSPECTION

A. The Contractor must 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 must include a draft DD Form 1354, Transfer and Acceptance of Real Property to the QA Inspector for review for each project task.

B. Partial BOD of the facility must be allowed with CO approval.

12.2 FINAL INSPECTION

A. The Contractor must conduct a final inspection with base personnel and publish the findings in a final inspection report for each project task. The inspection must concentrate on the items identified at the pre-final inspection and recorded in the pre-final inspection (punch list) report. A final inspection must not be performed until the pre-final inspection (punch list) report has been resolved. At the final inspection, the Contractor must 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.

B. Final BOD can take place at Final Inspection with CO approval.

12.3 DELIVERY AND WARRANTY

A. The Contractor must complete all inspection and commissioning requirements prior to final inspection. Following final inspection, the Contractor must deliver to the Government the warrant documentation. The warranty must be issued in accordance with FAR 52.246-21.

B. The warranty must continue for a period of one (1) year from the date of final acceptance of the work, unless otherwise specified in the individual TO. If the Government takes possession of any part of the work before final acceptance, this warranty must continue for a period of one year from the date of beneficial occupancy. In the event the Contractor's warranty of this clause has expired, the Government may bring suit, at its expense, to enforce a subcontractor's, manufacturer's, or supplier's warranty.

C. The Contractor must remedy, at the Contractor's expense, any failure to conform or any defect. In addition, the Contractor must remedy, at the Contractor's expense, any damage to Government-owned or controlled real or personal property when that damage is the result of:

1. The Contractor's failure to conform to contract requirements or
2. Any defect of equipment, material, workmanship, or design furnished.
3. The Contractor must restore any work damaged in fulfilling the terms and conditions of this clause. The Contractor's warranty with respect to work repaired or replaced will run for one year from the date of repair or replacement.
4. The Contracting Officer must notify the Contractor, in writing, within a reasonable time after the discovery of any failure, defect, or damage. If the Contractor fails to remedy any failure, defect, or damage within a reasonable time after receipt of notice, the Government must have the right to replace, repair, or otherwise remedy the failure, defect, or damage at the Contractor's expense.

D. Facility 3rd Party Certification

1. A CxA is required for the RFP process.
2. 3rd Party certification is required for items such as LPS, Fire Protection, and some HVAC systems.

E. Training

1. The Contractor must conduct both Operator Training and Maintainer Training once all installed systems are operational in accordance with an approved Training Plan.

2. The Contractor must 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 must be conducted on the project site whenever feasible. The Contractor must 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 must 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 must be acceptable ways of evaluating training effectiveness, in addition to other methodologies.

3. The Contractor must 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 must be submitted to the CO for approval in electronic format within the time listed in 4.0 A Table 1 - Table of Deliverables in advance of training events. Hard copies must be provided for the individuals who will physically attend training sessions. Electronic copies on computer discs of training materials must be provided for attendees, in addition to hard copies.

4. Following training, class rosters of those who attended must be submitted electronically to the CO. The Contractor must 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.

F. The Contractor must provide both electronic and hard copy versions of O&M manuals at least to the time listed in 4.0A Table 1 - Table of Deliverables prior to conducting training sessions. Hard copy versions of O&M manuals must be bound in high quality hard cover binders with dividers separating the various sections. Hard copy versions of O&M manuals must include computer discs containing the electronic versions of those manuals.

G. O&M manuals must 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 must include clear and readable pictures of equipment data plates for all installed equipment.

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

13.0 DEMOBILIZATION

A. The contractor must 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 must 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 must document and report on activities and train Government personnel to perform required maintenance, as requested in each Project (See Appendix B).

B. The contractor must 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.

13.1 EMERGENCY RESPONSE

See section 5.8, General Safety Requirements.

13.2 MAINTENANCE AND REPAIR

See section 5.2.1 Construction.

13.3 ORDNANCE REMOVAL AND SUPPORT

See section 5.8, General Safety Requirements.

13.4 SECURITY REQUIREMENTS

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.

13.5 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. 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.

G. 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

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

I. Severe Weather:

The Contractor should monitor the weather conditions, ex. Winds higher than 35 knots and lightning within 5 miles, and take proper precautions to protect employees, job site, government property, etc. If severe weather is anticipated the Contractor must 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.

J. 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

1. The national weather service (NWW) provides lightning reports with a phone call when lightning strikes within 8 miles of the airport, when lightning strikes within 5 miles of the airport, and when an auditory warning is signaled. “ACRP Report 8: Lightning- Warning Systems for Use by Airports [2008)”

2. 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.

3. 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 truck or a van with the windows completely shut. If lightning is striking nearby when you are outside, you should:

4. Crouch down. Put feet together. Place hands over ears to minimize hearing damage from thunder.

5. Avoid proximity (minimum of 15 ft.) to other people.

6. 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.

7. 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.

8. 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.

9. 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.

K. Fire Regulations and Preventative Practices: The Contractor must comply with fire prevention practices as set forth by the National Fire Protection Association (NFPA), other recognized fire prevention agencies, and base regulations.

L. Protection and Maintenance of Traffic: During construction the Contractor must provide access and temporary relocated paths as necessary to maintain traffic if required. The Contractor must maintain and protect traffic on all effected 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, must be as required by the State and local authorities having jurisdiction. The traveling public must be protected from damage to person and property. The Contractor's traffic on roads selected for hauling material to and from the site must interfere as little as possible with public traffic. The Contractor must investigate the adequacy of existing roads and the allowable load limit on these roads. The Contractor must be responsible for the repair of any damage to roads caused by construction operations.

M. Barricades: The Contractor must 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 must 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 must 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 must be maintained in an orderly fashion during the duration of their placement.

N. Explosive Operated Hand Tools: The Contractor must comply with OSHA Standard 1910.215(c) when utilizing explosive operated hand tools. Storage of explosive cartridges on the installation must be in metal containers and limited to one day’s supply. The Contractor must provide adequate controls to prevent loss/theft of cartridges used and stored on the installation.

O. Welding: Welding must not be performed without first obtaining a welding permit issued by the Base Fire Department.

13.6 GENERATED REFUSE

A. Refuse: The Contractor must take positive action to prevent work-generated refuse from entering the sewer system and water bodies. All Contractor generated refuse and waste must be hauled from the construction site to a disposal area located outside the physical boundaries of the installation. This refuse and waste material must be hauled in with tight-fitting beds and covers to prevent spillage on roadways and waterways. The construction site must 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 must become the property of the Contractor and must be handled, transported, stored, and disposed of off-base by the Contractor at the end of each day's work. Such material must 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 must provide the CO with the waste manifest tickets for all disposal runs associated with the project.

C. Contractor must turn in salvageable goods to the appropriate base agency. The Contractor must 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.) must be recycled and/or disposed in accordance with base policies. The Contractor must 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 must comply with all provisions of 40 CFR 260 through 281 regarding the generation, storage, and disposal of hazardous waste. The Contractor must submit a hazardous waste management plan to Contracting Officer for approval by 325 CES/CEI. The Contractor must not commence any work until this approval is obtained. The Contractor must stop all work in the event 325 CES/CEI identifies non-compliances with federal or state regulations and must correct any discrepancies immediately within 2 hours of notification by 325 CES/CEI.

14.0 FACILITY CONSTRUCTION PROJECT DELIVERY METHODS

A. The contractor should plan on having an offsite office location. The government does not guarantee office space will be provided.

B. The Government does not guarantee utilities will be provided for office space. The use of a generator and porta toilets must be required of office space is provided. To install and office space and laydown yard will require an 813-permit determination and could take up to 60 days to obtain the permit.

C. The Contractor must provide their own office space. If the government allows the office space to be at the job site, then the job site office trailer must be skirted. Skirt must be painted with an approved color that complies with the TAFB IFS Exterior Materials, Finishes and Color palette.

14.1 DESIGN-BUILD (D-B)

A. The D-B Contractor must be staffed sufficiently to perform acceptably as both the DOR and the Constructor for this contract.

B. Design services must develop design documents which identify the necessary requirements for the development of the design. Design documents must include working drawings, specifications, and O&M manuals.

C. The Contractor must 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 must 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 must 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 must thoroughly define the renovation effort and meet the standard of quality typical of the professional design industry. Construction efforts must be in strict accordance with the approved "for construction" design documents. The Contractor must verify quantities and locations for all materials associated with the effort. The Contractor must provide all labor, materials, and equipment required to design and construct this project.

14.2 DESIGNER OF RECORD (DOR)/DESIGN PROJECT MANAGER (PM)

A. The professional registrations of other US States and territories must 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 must 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 must be submitted along with the DOR's evidence of professional registration.

B. The PM who must be a registered engineer or architect. This individual is responsible for overall integration of the contractor's team DOR's 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 must be signed and marked with the official seal of the Designer. Along with any submitted final (100%) designs, the Designer must also submit a signed and sealed letter, which must serve as an affidavit that confirms that the design complies with all applicable laws and regulatory standards.

14.3 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 must 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 must 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.

The following relate to designs with Fire Protection:

F. A-E Qualifications: It is mandatory that the design organizations (whether the design is accomplished by an in-house design agent or an outside A-E firm) use a registered in Florida fire protection engineer (FPE), experienced in the design of the fire protection systems. System designers must be qualified IAW UFC 3-600-01.

G. The project FPE must review the one hundred percent (100%) design submission of plans and specifications and certify in writing that the design is IAW UFC 3-600-01 and all applicable criteria. This certification letter must be submitted with the one hundred percent (100%) submission.

H. The design-build contractor's Qualified Fire Protection Engineer (QFPE) must review all interior finishes (ceiling, wall, and floor finishes) for compliance with the fire performance classifications of NFPA 101.

I. In addition to the construction indicated in this RFP, additional smoke/fire rated construction must be required depending on the final design approach proposed by the DOR. Material changes to the design require Government approval prior to acceptance and inclusion into the design.

J. Base Fire Prevention Program: The Contractor design must comply with the Fire Prevention Program regulations of the military installation to be serviced under this contract, TAFB, FL. The names of the installation fire protection and fire safety personnel, and the TAFB applicable regulations will be provided during the pre-performance conference.

K. Fire Regulations and Preventions Practices: The Contractor must design to comply with fire prevention practices as set forth by the National Fire Protection Association, other recognized fire prevention agencies, and base regulations.

L. The AHJ as defined by UFC 03-600-01 and NFPA 13 for the Fire Protection has final say on whether the contractor meets the applied codes and standards. Prior to implementing testing of Fire Systems, the AHJ must review and approve the test plan to meet coded requirements. The AHJ must be notified by the contractor and witness testing.

M. Security forces is the final review and approval of all security related submittals and test plans.

N. In addition to UFC 03-600-01, TSFPEWG G 3-600-01.01-18 is used to determine the MAC requirements for Tyndall Buildings.

O. Fire Safety Deficiencies (FSDs). Refer to UFC 3-600-01, Fire Protection Engineering for Facilities, Paragraph 1-3.2.2, and AFI 32-10141, Planning and Programming Fire Safety Deficiency Correction Projects, for policy regarding the programming of fire protection system work when

facility repair costs equal or exceed 50% of the estimated facility replacement cost. This threshold applies in the work's pre-award phase, up to and including project award. See Table 6.1.2 below:

Table 14.3 UFC 3-600-01, Fire Protection Engineering for Facilities, Compliance Metrics.

UFC Term	UFC Definition	Abridged UFC rule
Repair	Patching, restoring, painting to maintain sound condition	Work area must comply to UFC
Renovation	Replacement, strengthening, or upgrading not resulting in reconfiguration of space	Work area must comply to UFC
Modification	Reconfigurations	Work area must comply; If 50% area, entire facility must comply
Reconstruction	Reconfiguration effecting exit or shared corridor	Entire building must comply
Addition	An increase in area	Addition must comply
Change in Use	None	Area of change must comply
Vacant Building	None	Entire building must comply before occupancy

14.4 USER REQUIREMENT DESIGN MEETING

A. 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 must 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.

B. The in-brief must familiarize the customer with the purpose of the Contractor's visit and coordinate the project schedule (e.g., arrange for required escorts; Base POC schedule; etc.).

14.5 GEOTECHNICAL/HAZARDOUS MATERIAL SURVEY REQUIREMENTS AND RESPONSIBILITES

A. A geotechnical survey must be required prior to digging in a potentially contaminated area.

B. Any contaminated soil discovered a geotechnical survey is the contractor's responsibility for removal and dispose the soil.

C. Any boring sample that cannot be returned to the bore hole is the responsibility of the contractor for disposal and removal.

14.6 SOIL SURVEY REQUIREMENTS AND RESPONSIBILITIES FOR CONTRACTOR

A. A hazardous waste determination is required for soil removal.

B. Payment will not be paid for removal of soil that does not require treatment.

C. Soil sampling is the contractor's responsibility which includes the hazardous waste determination.

D. Soil sampling and boring must be required to obtain a proper footer for new construction activities.

E. All soil prior to removal from the base must be sampled for contaminates. Refer to WBDG section 02 54 20 for additional requirements. See below for required sampling requirements.

F. Sampling is required every 400 cy of soil removal in a non-ERP.

G. Sampling is required every 50 cy of soil removal in an ERP.

H. Testing Requirements for required soil testing for a hazardous waste determination is a TCLP with FLOPRO. This is 2 separate tests and can be confusing for contractors.

I. This is a partial required contaminates list required for sampling:

Table 14.6—Maximum Concentration of Contaminants for the Toxicity Characteristic

EPA HW No.[1]	Contaminant	CAS No.[2]	Regulatory Level (mg/L)
D004	Arsenic	7440-38-2	5.0
D005	Barium	7440-39-3	100.0
D018	Benzene	71-43-2	0.5
D006	Cadmium	7440-43-9	1.0
D019	Carbon tetrachloride	56-23-5	0.5
D020	Chlordane	57-74-9	0.03
D021	Chlorobenzene	108-90-7	100.0
D022	Chloroform	67-66-3	6.0
D007	Chromium	7440-47-3	5.0
D023	o-Cresol	95-48-7	[4]200.0
D024	m-Cresol	108-39-4	[4]200.0
D025	p-Cresol	106-44-5	[4]200.0
D026	Cresol		[4]200.0
D016	2,4-D	94-75-7	10.0
D027	1,4-Dichlorobenzene	106-46-7	7.5
D028	1,2-Dichloroethane	107-06-2	0.5
D029	1,1-Dichloroethylene	75-35-4	0.7
D030	2,4-Dinitrotoluene	121-14-2	[3]0.13

EPA HW No.[1]	Contaminant	CAS No.[2]	Regulatory Level (mg/L)
D012	Endrin	72-20-8	0.02
D031	Heptachlor (and its epoxide)	76-44-8	0.008
D032	Hexachlorobenzene	118-74-1	[3]0.13
D033	Hexachlorobutadiene	87-68-3	0.5
D034	Hexachloroethane	67-72-1	3.0
D008	Lead	7439-92-1	5.0
D013	Lindane	58-89-9	0.4
D009	Mercury	7439-97-6	0.2
D014	Methoxychlor	72-43-5	10.0
D035	Methyl ethyl ketone	78-93-3	200.0
D036	Nitrobenzene	98-95-3	2.0
D037	Pentachlorophenol	87-86-5	100.0
D038	Pyridine	110-86-1	[3]5.0
D010	Selenium	7782-49-2	1.0
D011	Silver	7440-22-4	5.0
D039	Tetrachloroethylene	127-18-4	0.7
D015	Toxaphene	8001-35-2	0.5
D040	Trichloroethylene	79-01-6	0.5
D041	2,4,5-Trichlorophenol	95-95-4	400.0
D042	2,4,6-Trichlorophenol	88-06-2	2.0
D017	2,4,5-TP (Silvex)	93-72-1	1.0
D043	Vinyl chloride	75-01-4	0.2

[1]Hazardous waste number.
[2]Chemical abstracts service number.
[3]Quantitation limit is greater than the calculated regulatory level. The quantitation limit therefore becomes the regulatory level.
[4]If o-, m-, and p-Cresol concentrations cannot be differentiated, the total cresol (D026) concentration is used. The regulatory level of total cresol is 200 mg/l.
[55 FR 11862, Mar. 29, 1990, as amended at 55 FR 22684, June 1, 1990; 55 FR 26987, June 29, 1990; 58 FR 46049, Aug. 31, 1993; 67 FR 11254, Mar. 13, 2002; 71 FR 40259, July 14, 2006]

15.0 GENERAL DESIGN REQUIREMENTS

A. The Contractor must 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. Building Commissioning: Provide necessary drawings, specifications, basis of design, and other necessary information at each design submittal and during construction phase for review by the Government's Commissioning Authority (CxA).

C. Design

1. The Contractor must prepare and submit for approval a draft 35% 65%, and/or 100% design for construction. The design must 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.

2. The design reveals the designer's rationale and intent. The design must 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.

3. 35% Design

   In general, documents which show the essential components of the proposed design and convey that the Contractor fully understands the Task Order Request requirements and that the proposed price includes all required elements of work to complete the project. The documents will include the following minimum information, as applicable to the project; drawings, a list showing sections to be incorporated in the specifications, and any other design components relating to the 35% design as identified in the Task Order (TO). Major mechanical and electrical equipment items must be shown on the drawings with single line diagrams and appropriate load calculations. All utilities and structures must be shown with applicable design calculations.

   a. Draft 35% Design: Drawings, Design Analysis, and Specifications.
   b. Composed of, at minimum, a Project Specifications, a Design Analysis, Design Drawings, and a Submittal Register.
   c. 35% Design Review
   d. Meeting agenda.

e. 35% Design Review Meeting Minutes.
f. Government Approval Meeting Minutes.
g. Government 35% Review and Comments
h. Government Approval of Comments
i. 35% Design Document.

4. 65% Design

Documents building upon the 35% design, including drawings and the complete text of the specifications. The drawings will show an additional 30% progress in all disciplines which may include site plans, floor plans, elevations, wall sections, details, and all other elements as identified in the 35% design. All cut sections and details must also be shown on the drawings at this time. Any updated or corrected design analyses of architectural, structural, civil, electric, mechanical, and utility systems must be included. The Contractor must stop work until the Contracting Officer issues a Notice to Proceed to the next design milestone.

a. Draft 65% Design: Drawings, Design Analysis, and Specifications.
b. Composed of, at minimum, a Project Specifications, a Design Analysis, Design Drawings, and a Submittal Register.
c. 65% Design Review
d. Meeting agenda.
e. 65% Design Review Meeting Minutes.
f. Government Approval Meeting Minutes.
g. Government 65% Review and Comments
h. Government Approval of Comments
i. 65% Design Document.

5. 100% Design

Documents building upon the prior design submittal which include final contractor accomplished corrections based on the Government's review of the prior design documents.

a. Draft 100% Design: Drawings, Design Analysis, and Specifications.
b. 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.
c. 100% Design Review Meeting
d. Meeting agenda.
e. 100% Design Review Meeting Minutes.
f. Government Approval Meeting Minutes.
g. Government 100% Review and Comments
h. Government Approval of Comments
i. Material Submittals
j. 100% Design Document.

D. Design Analysis:

1. The Contractor must prepare and submit for approval a 35%, 65%, and a 100% Design Analysis (DA). The DA must 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.

2. The DA reveals the designer's rationale and intent. The DA must 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.

3. As specified in the TO SOW, design calculations are required, to include code references, as applicable for each discipline, to show compliance. The following is a list of calculations (but not limited to) which might typically be required under this contract. A few examples of items required for the design are included below.

4. Civil/Site work:

    a. Sizing and grades for sanitary & storm sewers
    b. Sizing for water mains & services
    c. Sizing for gas mains & services

5. Structural

    a. Foundation sizes and reinforcing
    b. Superstructure framing
    c. Wind & snow loading analysis
    d. LL (Live Load) & DL (Dead Load)
    e. Wall sizes and reinforcing
    f. Equipment supports.
    g. Elevated platforms
    h. Floor member sizing / reinforcing
    i. Lintel sizing
    j. Sizing for roof joists & decking

6. Mechanical:

    a. Cooling and heating load analysis
    b. Pump sizing and pump curves
    c. Pipe sizing
    d. Duct size
    e. Static pressure loss
    f. Control valve sizing
    g. Psychometric chart analysis

h. Fan sizing and fan curves
i. Heat exchanger selection

7. Electrical:

a. Load calculations
b. Short circuit calculations
c. Lighting level calculations
d. Branch circuit calculations
e. Motor feed requirements
f. Panel sizing

8. Fire Protection:

a. Sprinkler layout and pipe sizing
b. Pressure drops calculations.
c. Alarm battery voltage drop calculations.

9. Others as applicable to a specific project and identified in the TO SOW.

E. Calculations:

Calculations must be shown in the 35% 65%, 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 must be shown. Software programs must be used to generate calculations; however, the design must address the appropriateness of any selected program(s), as well as provide a listing of software program inputs and software program generated outputs.

F. Specifications

1. The Contractor must draft United Facilities Guide Specifications (UFGS) compliant specifications and submit them for approval. The Contractor must submit specifications at the 35%, 65%, design level and the 100% design level. The completed specifications must be provided to the CO in Portable Document Format (PDF), and in unprotected editable Microsoft Word (RTF, DOC, or DOCX) formats.

2. Technical specifications have not been provided. The Design Build Contractor's Designer of Record must develop construction document technical specifications for all areas of work using the UFGS system in conformance with the RFP.

3. Unless otherwise noted or required in this Request for Proposal, materials and methods allowed by the unedited UFGS specifications will be allowed to be incorporated into the project when in compliance with other listed criteria. The DBC must not materially revise the specifications such that the specification does not reflect the intent of the unedited specification without prior approval from the Government. The DBC will edit the specifications for completeness and project applicability. The specification will be edited to remove all materials that will not be used such that the edited specification reflects only those products intended to be used on the project. This editing process must be completed prior to first submission of the specification. Unless a more

stringent warranty is identified in the RFP include warranties as described in the UFGS Specification. Do not reduce warranty requirements recommended in the guide specification. If no UFGS Specification exists for a component to be incorporated into the design the Contractor will develop a product specific specification using the UFGS format to describe in detail the item to be incorporated into the design. All custom specifications will be developed in the coded format of the UFGS standard system, including Parts 1, 2 and 3.

4. For fire alarm projects, please refer to the base Fire Protection Engineer or the Fire Department for the latest version of the fire alarm and mass notification specification.

5. Electronic sets of the specifications index for those sections, as well as other specification sections appropriate to the anticipated work and added by the Contractor, must be included in the 35%, 65%, and 100% design or the first design phase submitted with the Contractor's offer. The contractor must electronically edit the specification sections, previously identified, to correspond with the work proposed in the project. Electronic sets of edited specifications (or as otherwise required by the TO SOW) must be provided with each intermediate and final design submittal.

6. The bottom of each page must have the following relative information indicated in the format noted:
   a. Project Number Section Number
   b. Page Number of the Section
   c. When the last page of a section is encountered, the following must be noted (centered) after the last paragraph: END OF SECTION

7. The use or specification of materials not made in the United States are prohibited. Only American made products must be used in this project, except as identified in clauses FAR 52.225-9; Buy American--Construction Materials, and FAR 52.225-11, Buy American-- Construction Materials under Trade Agreements, as applicable under FAR 25.1102.

8. The Contractor must 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.

9. Professional Certification – The process of affixing a seal or statement to a drawing or design document to indicate that the work to which it is affixed has been performed by a person licensed as a professional, in that area of expertise, in the state of Florida.

15.1 GOVERNMENT DESIGN 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 must 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 must 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 must be documented in writing then submitted to the CO for consideration and determination. The Contractor must not proceed with work outside the contract as determined by the CO unless a modification to the contract is executed.

D. After the first round of design comments and the initial comments have not been resolved the design is to be disapproved with comments. The design cannot move forward until an agreement has been reached with CO approval for disapproved designs. Administrative issues like spelling and formatting can be approved with comments. When portions of the design such as the specifications and design analysis have not been submitted with the design will be disapproved with comments. Resubmittal of the design stages 35% 65%, and 100% will not be considered a delay by the government.

E. Disapproval of material submittals that do not clearly show the specifications are met or the design does not have a specification requirement that needs to be included in the design is not considered a delay by the government. Submittal comments must be resolved before the material submittals can be accepted.

F. Materials and equipment must not be ordered that does not have an approved submittal and a design specification. Failure to provide documentation can result in removal of the material at no cost to the government.

G. 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.

H. Per the Contract the Contractor is the Designer of Record (DOR) per FAR 52.236-23. The Contractor must 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/Basis-of-Design for conformance with the contract SOW, per FAR 52.236-21 Approval by the Contracting Officer must 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 ensure 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 reliving the Contractor of any responsibility for contract compliance.

15.2 AS-BUILT DOCUMENTATION

A. Drawings must be prepared on AutoCAD release 2008 or later format. Drawings must be delivered in hard copy, standard black line quality paper, at review stages. One of the drawings provided to CENM must 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 must be provided to the Contracting Officer for project at the 35%, 65%, and/or 100% design phases. Approved, For Construction plan set must 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-Builts must be submitted to the government upon completion of construction and must be reviewed for accuracy. Upon approval, the contractor must provide electronic versions of the As-Built drawings in both AutoCAD 2008 or later, and as .PDF to the government on CD. The drawings must be drawn to appropriate scales and dimensioned completely and accurately. Extensive explanatory notes on the drawings should be held to a minimum. Dimensions must be shown in Standard English units. Standard building material indications and symbols for architectural items and for mechanical and electrical equipment must be used to the greatest extent possible.

B. Accurate As-Built drawings denoting the details of what was constructed or installed must 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 must accurately record what was built/installed on all applicable drawings. In the case of any contract modifications associated with the construction effort, the Contractor must 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 must provide access to these records to the CO or QA Inspector upon request, without prior notice. All field notes on design drawings must 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 4.0A Table 1 - Table of Deliverables 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, must be considered to be a defect and must be corrected by the Contractor at his cost.

E. The minimum drawing scale on drawings must be 1/4" = 1'-0". Preliminary electronic As-Built Drawings must be submitted with an AF Form 3000, Material Approval Submittal, for Government Approval. The submission must precede or be concurrent with the request for a Pre-Final Inspection.

F. Design Drawings

1. As-Built drawings are required project close out submittal documents.

2. The Contractor must prepare and submit for approval a 35% 65%, and a 100% set of design drawings. Regardless of the software used to prepare the drawings, the submitted unprotected and fully editable drawing files must be wholly compatible with the most recent version of AutoCAD. The Contractor must also submit a PDF version of the complete drawing set, in addition to 1 set of bound hard copies. The drawings must 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.

3. At a minimum, the Contractor must 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 plan, mechanical plans, plumbing plans, fire plans, electrical plans, and lighting plans. The Contractor must submit other drawing pages as needed to completely convey the design intent to a competent construction Contractor.

G. Project Closeout Documentation

1. Submissions of project close-out documents are required project tasks. The Contractor must include these tasks in his Contract Progress Schedules and his Contract Progress Reports. The project will not be completed until all required project's close out documents have been submitted and approved.

2. The Contractor must 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.

3. A completed builder spreadsheet must be provided by the contractor to assist real property.

4. The Contractor must provide both electronic and hard copy versions of O&M manuals at least to the time listed in 4.0 A Table 1 - Table of Deliverables As-Built Design Documents prior to conducting training sessions. Hard copy versions of O&M manuals must be bound in high quality hard cover binders with dividers separating the various sections. Hard copy versions of O&M manuals must include computer discs containing the electronic versions of those manuals.

5. O&M manuals must 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 must include clear and readable pictures of equipment data plates for all installed equipment.

6. For those projects which include mechanical/electrical/specialty systems requiring periodic or routine maintenance, the Contractor must prepare and submit operation and maintenance manuals in one (1), bound, hard copies as well as one (1) electronic copy (or as otherwise required by the TO SOW). As a minimum, the manuals must contain technical data, diagrams, parts listings, maintenance instructions, and the name, address, and phone number of the manufacturer and servicing/replacement parts source. These manuals must be submitted prior to the final inspection.

H. GPS Data

When required: The Contractor must furnish survey data showing the horizontal location of all site improvements constructed to include, but not limited to, buildings, pavements, utilities, and all similar construction. Site improvements such as buried utility lines require one survey shot every 50' of straight line, at each turn or bend in the line, hydrants, fittings, valves, valve boxes, curb stops, relocations and crossings of existing utilities, structures, or other appurtenances relocated or effected by the construction. Also provide elevations for the topmost point of visible appurtenances such as fire hydrants and valve boxes. The Contractor must use conventional surveying methods such as total station, Global Positioning System (GPS) for field data collection at an accuracy of +/-2cm. Data delivered in a format other than ESRI geodatabase must have an external spatial reference (.pry) file attached that specifies the parameters of the coordinate system in standard ERSI format. All electronic data deliverables must be on a CD-ROM in a format that conforms to the latest version of both the CADD/GIS Technology Center's Spatial Data Standards and A/E/C CAD Standards. These standards can be found at https://cadbim.usace.army.mil/.

15.3 RESPONSIBILITY FOR ERRORS OR OMISSIONS

A. 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 must 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.

B. 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.

C. The Government's review is not to be considered a quality control review; the Contractor must 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.

D. If the Government's review results in comments, the Contractor must 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 must be documented in writing then submitted to the CO for consideration and determination. The Contractor must not proceed with work outside the contract as determined by the CO unless a modification to the contract is executed.

E. Per the Contract the Contractor is the Designer of Record (DOR) per FAR 52.236-23. The Contractor must 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 must 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 all errors or omissions. It is the Contractor's responsibility to ensure all aspects of the design are IAW 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 reliving the Contractor of any responsibility for contract compliance.

16.0 ARCHITECTURAL AND STRUCTURAL

Described as follows.

16.1 BASE WIND SPEED REQUIREMENTS

A. The scope of work is based on the Tyndall Wind Speed Memorandum dated October 19, 2019. The wind speed memo can be found out www.tyndallifs.com. HVHZ FBC, section 1602.2 criteria for Miami Dade County Risk Category III and IV Buildings and Structures meeting 186 mph. Based upon our AF Structural SME recommendations and in alignment with the SecAF directed Severe Weather Readiness Assessment recommendations, the Tyndall PMO will use the UFC 3-301-01 and the following Tyndall design wind speeds based upon Risk Categories III-V. RC III 165 mph and RC IV 170 mph (Risk categories are defined by UFC 03-301-01, Table 2-2).

B. All exterior building envelope materials such as, but not limited to windows, glazing, roofing systems, concrete masonry unit or metal panel walls, and doors must have a current Miami-Dado Notice of Acceptance (N0A) and installed to HVHZ standards that match the specified wind requirement. Our construction industry partners must continue to have the option of submitting test results or drawings sealed by a Professional Engineer stating conformance with HVHZ standards in lieu of materials pre-approved by Miami-Dade County.

C. While we should always use our Unified Facilities Criteria as the basis for all our facilities designs, we will also integrate the best practices from the Florida Building Code (FBC) High-Velocity Hurricane Zone (HVHZ) into this design guidance to further improve facility resiliency at Tyndall. Other details from the memorandum may apply as well.

D. Risk Category III is applicable to the SOW for the Honor Guard and must meet a 165-mph wind speed. Support structures include but are not limited to porches, awnings, canopies, etc. The building envelope is not required to be brought up to those standards at this time. The repairs and new installation work must meet all current codes and standards.

E. HVAC outside units must be secured to the pad or ground. When using mounting hardware, a minimum of 5/16 bolting must be used.

F. HVAC condensing units and chillers are to have guards installed to protect the coils. Damaged coils will not be accepted.

G. Exterior Windows, Curtain Walls, Storefronts, Doors, and Louvers Architectural Design Criteria: Approved products with test reports for use in the FBC HVHZ and their respective Florida Product Approval (FPA) that has been tested to the FBC standards of TAS 201, 202, and 203.

16.2 HVHZ WINDOWS AND STOREFRONTS PERFORMANCE REQUIREMENTS

A. Wind loads: Provide storefront system; include anchorage, capable of withstanding wind load as indicated on the Structural Drawings. The design pressures are based on the FBC for the geographical location of Miami-Dade County.

B. Air Infiltration: Test the specimen in accordance with ASTM E 283. Air infiltration rate must not exceed 0.06 cubic foot per minute per square foot (0.3 liter per second per square meter) at a static air pressure differential of 6.24 psf (300 Pa).

C. Water Resistance: Test the specimen in accordance with ASTM E 331. There must be no leakage at a minimum static air pressure differential of 12 psf (575 Pa) as defined in AAMA 501.

D. Uniform Load: Apply a static air design load of 65 psf (3,112 Pa) in the positive and negative direction in accordance with ASTM E 330. There must be no deflection in excess of L/180 of the span of any framing member. At a structural test load equal to 1.5 times the specified design load, no glass breakage or permanent set in the framing members in excess of 0.4% of their clear spans must occur.

E. Windborne-debris-impact-resistance Performance: Test in accordance with ASTM E 1886 and information in ASTM E 1996 and/or AAMA 506.

    1. Large-missile Impact: For aluminum-framed systems located within 30 feet (9.1 meters [m]) of grade.

    2. Small-missile Impact: For aluminum-framed systems located more than 30 feet (9.1 m) above grade.

F. Exterior glazing must be large impact-rated in compliance with FBC Chapter 14; maximum glass sizes as per ASTM E1300; low thermal emissivity-type, insulated and tinted. Dry glazing gaskets are in accordance with ASTM C864 or ASTM C509 per FBC Chapter 14.

16.3 DESIGN FLOOD ELEVATION

The TAFB Memorandum for Design Flood Elevation (DFE) dated June 05, 2019 defines as:

A. For the Gulf side (generally southwesterly of Highway 98) the DFE is 19' above today's mean sea-level (MSL); and

B. For the East Bay side, generally northeasterly of Highway 98, the DFE is 14' above MSL

16.4 ROOF ACCESS

When required, roof access will be provided by building-mounted external ladders secured by locked cages or similar mechanisms. Access to keys will be limited to appropriate facility users, maintenance personnel, and emergency responders. Reference request for deviation F325CES-E20-04 10/30/2020

16.5 EXTERIOR AND INTERIOR DOORS INCLUDING OVERHEAD/SECTIONAL

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. Door lock cores will be best with 7 pin cylinders. The Flight line side uses “K” keyway and Base Support side uses “J” keyway.

B. Hinges for exterior doors should be stainless steel with BHMA 630 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 be ABA 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 a minimum of 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). Provide explosion proof motors and controls where hazardous vapors must be encountered.

17.0 STRUCTURAL INTERIOR DESIGN (SID) DESIGN SUBMITTALS

A. Provide a Structural Interior Design (SID) which includes selection, specification and installation of the building related finishes, materials, and colors. SID materials, finishes, and colors must be reviewed by the Government for compliance with the awarded RFP. SID submittals will run concurrent with the Architectural submittals and be provided to the base per the UFC for SID binder requirements. The SID binder for submittal to Base CE for review and approval. For requirements, utilize Interior Design UFC 3-120-10. The Structural Interior Design (SID) includes building related design elements and components generally part of the building itself, such as walls, ceilings, floor coverings and built-in casework. The interior designer’s knowledge and involvement in the project from the programming stage forward affords maximum success in accomplishing the user’s

goals and requirements. The interior designer must be involved with the programming and space planning to help achieve the client's goals for space utilization, and with determining the desired interior finish materials and their respective aesthetic, durability and maintenance qualities or characteristics. In addition, the interior designer must provide a furniture footprint based on the project program. The SID will be performed by a qualified interior designer.

B. Finishes and Finish Schedules As required

Drawings and specifications must include the complete finishes and finish schedules. Wall, cabinet, counter tops, floor finishes, and other finish items must include complete color selections and materials in the specifications. The drawings and specifications must be of sufficient detail to effectively illustrate requirements inclusive of levels of quality such that a contractor can both quantify and bid on common ground for items contained within a given schedule.

C. Carpeting

1. MEMORANDUM FOR ALMAJCOM-FOA-DRU, Mandatory Use Policy for Air Force Carpet Acquisitions within the Contiguous U.S.

2. A mandatory-use policy is warranted and must 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 Office Furniture.

18.0 LIGHTING:

A. Luminaries/ Interior Lighting - Lighting fixtures must be LED and have a correlated color temperature of 4,000 degrees Kelvin with a Color Rendering Index (CRI) of 90 CRI. All lighting fixtures must have the same correlated color temperature.

B. Luminaries/ Exterior Lighting for non-Turtle lit areas of TAFB - Lighting fixtures must be LED and have a correlated color temperature of 4,000 degrees Kelvin with Color Rendering Index (CRI) of 80 CRI or higher. All lighting fixtures must have the same correlated color temperature.

C. Turtle Lighting. Wildlife Preservation Lighting for all exterior lighting for Tyndall AFB, "south" of US Highway 98.

1. Provide LED light with an "Amber" color. of 560 nanometers (nm) wavelength.
2. "Turtle Lighting to be certified by Florida Fish and Wildlife Conservation Commission. https://myfwc.com/conservation/you-conserve/lighting/criteria/certified/

D. Dimmable LED lighting may require the fluorescent light dimmers to be replaced as part of the LED light replacement. This would be considered part of the work scope for the LED light replacement.

E. Interior LED lighting may require the replacement of battery backup lighting. This would be considered part of the work scope for the LED light replacement.

F. Luminaries/ Emergency Lighting - Lighting fixtures must be LED.

G. Fire Protection Strobes must be white.

H. Light sensors may require replacement to meet the current FRCS Guide Sept 2021 as described in the Appendix F, FRCS Deliverables List. This would be considered part of the work scope for the LED light replacement and/or Siemens upgrade.

I. In accordance with Tyndall EMCS_SPD-29112021, the use of wireless or Bluetooth lighting is not allowed. LED lighting must not have the wireless or blue tooth function enabled.

19.0 PLUMBING:

A. See Appendix A. for specifics to the project.

20.0 MECHANICAL

A. See Appendix A. for specifics to the project.
B. A Memorandum AFCEC/CO: The 325th Civil Engineer Squadron requests that Trane be the single manufacturer for Heating, Ventilation, and Air Conditioning (HVAC) chiller systems at Tyndall AFB. Trane Chillers and HVAC above 10 ton are required to be Trane equipment. If Trane is currently installed for smaller units, then they are to be replaced with Trane equipment.

20.1 HVAC CONTROLS

A. Justification and Approval (J&A) for Other Than Full and Open Competition - Tyndall AFB Reconstruction, Facility Related and Industrial Control Systems. The Appendix provides current guidance for this section. The Sept 2021 version of the document must be used.

1. 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.

2. 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.). See Appendix C for the Tyndall Rebuild - Facility Related Control Systems (FRCS) Technology Summary for reference as applicable.

3. The control system should be a BAS or equivalent capable of controlling/monitoring the entire heating, ventilation, air conditioning system. The system must also include the ability to calculate compressor runtime and include the following points:

• VAV Boxes	• AHUs
• Exhaust Fans	• Boilers (Heating/Domestic Water)
• Chillers	• Chilled/Hot Water Pumps
• Ambient Temperature and Humidity	• Domestic Hot Water Recirculation Pumps

4. The system must be interfaced with the building fire alarm system and must be provided with additional devices required by AT/FP standards to permit system shutdown in an emergency. All air-handling system(s) over 2,000 CFM must be interfaced with the building fire alarm system and be capable of emergency shutdown. The system must be capable of temperature control, occupied/unoccupied scheduling, night setback control, and alarms.

5. The use of unapproved ATO equipment will require the base to update the Authorized equipment list to be used to tie into the EMCS system. Buildings that do not have an ATO will require approval prior to the tie into the EMCS system. 97 percent of the base is currently using Siemens controls.

6. FRCS Switches must be required for items like the gunshot detection. These switches will be provided by the contractor.

20.2 VAVs

VAVs must be utilized for new systems.

20.3 METERING

Approved metering is to be a 9410 or 9810 model numbers.

21.0 CONTROLS AND MONITORING

A. The use of non-Siemens controls equipment like Trane, Honeywell, etc. is only approved with the CES Flight Chief Authorization to deviate from the J&A for Siemens Controls.

B. In Appendix A, the requirements of the FRCS guide must be incorporated into the work tasks. Just the referencing of the guide is no longer acceptable. State what points and graphics is required. State what additionally, items are required. The FRCS deliverable list has a good breakdown of the required information. It could be as simple as copying from the deliverable list and making it a work task. Remove this statement form the final document.

C. The J&A for the use of Siemens controls has the following:

The results of this business case analysis demonstrate that to minimize operational and maintenance costs and potential cyber vulnerabilities, the use of Siemens brand name programmable controllers should be used for all projects that require a connection to the centralized EMCS, fire reporting system, and base defense systems. Additionally, in support of the Tyndall AFB reconstruction effort, all new building control systems, unless identified by exception, must be required to connect to the centralized systems above.

D. FRCS Guide Sept 2021:

1. The FRCS is divided into three distinct areas. FRCS limited with a few components monitored like temperature, humidity, HVAC system running, and water level in the building, only manual lighting controls, etc. FRCS Standard is full complement of FRCS required equipment. The FRCS Plus include but are not limited to the following Hydronic and Gas Leak Detection based on building size. The cybersecurity requirements must be considered during the design process for Confidentiality, Integrity, or Availability assessment or (CIA) rankings and Mission Assurance Category (MAC) ratings. There is a CES FRCS Matrix that addresses the CIA and MAC rating for Tyndall buildings and structures. UFC 4-010-06 - CYBERSECURITY OF FACILITY-RELATED CONTROL SYSTEMS has guidance on the Cybersecurity requirements for systems. FRCS Master List Memo - Base Systems Attachment A has the base systems affected by cybersecurity requirements. The Oshiba Memorandum has the required categories to be used for the CCI determination. The IROC ATO has additional categories that are being considered, thus the combination of those CCI should be used in designing a project. CES has a spreadsheet of those CCIs.

2. The FRCS guide 09/22/2021 has been used to develop the Appendix I, FRCS Deliverables List.

3. Climate controlled areas greater than 5000 sf require EMCS and will have lighting controls. Areas for example but not limited to mechanical and electrical rooms and industrial areas will only have manual lighting controls.

4. For buildings less than 5000 sf, the UFC 03-600-01 may not require installation of Fire Alarm, and Fire Suppression. There are specific types of buildings that require Fire Suppression regardless of the size.

5. The UFC 4-021-01 may not require Mass notification for these buildings.

6. Information Kiosks are only required for climate-controlled Facilities over 30,000 sf. As delineated by the Energy Act of 2016.

7. Only installation of conduits and junction boxes for IDS and Access control systems are addressed by the FRCS guidance.

8. In accordance with Tyndall EMCS_SPD-29112021, the use of wireless or Bluetooth controllers are not allowed due to cyber security requirements. The Tyndall EMCS_SPD-29112021 does not currently use, nor currently authorize the use of wireless technologies. These technologies

include, but are not limited to, HF/VHF (High Frequency/Very High Frequency) Radio Communications, Wi-Fi Communications (Wireless Fidelity), NFC (Near Field Communications) and Bluetooth communications.

9. Buildings less than 5000 Sf will have a FRCS limited control scheme. These buildings will be evaluated by the base for the installation of the standard FRCS components. Some examples of components to be used in smaller buildings are as follows: The system controller, Room Automation Controllers, HVAC controllers, Variable Air Volume (VAV) Controller, basic lighting controls, manual lighting controls, flood detection, temperature, humidity, HVAC running.

10. FRCS plus components is installed in climate-controlled areas with greater than 5000 sf of covered floor area.

11. AFMAN 32-1061 established policy for placement of meters on utility systems, including electrical, natural gas, steam, and water, to measure, track, and report utility usage and consumption. Meters with interval and remote reading capabilities are mandatory on all new construction and utility system renovation projects exceeding $200K. Waiver authority is MAJCOM/CV or higher to meet the law. Water and gas meters are to communicate through electrical meter to report to the AMRS program.

12. Installations will meter government-owned family housing using a master metering system according to AFI 90-1701. At a minimum, the project owner must install a master meter at the point of demarcation located between the installation utility system and the housing area utility system. The privatized housing area meters are purchased and installed using the project owner's funds, but ensure meters meet Unified Facility Guide Specifications requirements and the BCE approves installation of the meter.

13. Sub-metered electrical data is collected for all major building systems with a load greater than 5 KW. This includes but is not limited to central HVAC systems (pumps, chillers, cooling towers, boilers, and air handling units) data centers or other building-level IT loads > 5 kW, overall building-level lighting systems, and specialty or high- wattage lighting systems (such as aircraft hangar lighting or exterior lighting > 5kW). Remote generator tie-in locations and potential backup generator require sub-metering. See section 6.1.5.15 Metering: for acceptable meter model numbers.

14. Major building systems equipment with less than a 5 KW load is not required to have sub-metering.

15. Facilities that have a backup generator are considered mission critical. Anything considered a data center; computing center or critical facility must be fully covered with advanced meters. Meters must be fully integrated with the base's layout. These meters must be capable of disconnected operation w/ all other CE controls for 7 days or until mission can relocate. Meters must have capability of being sampled and data analyzed to the most critical power needed.

16. The controllers will be configured and programmed using government-licensed software. Programmable controllers are categorized as FRCS/ICS and include and are not limited to 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, intrusion detection sensors, and industrial controls (i.e., pump controls, roadway intersection signals, etc.). Use Appendix F, FRCS Deliverable List for additional requirements.

17. The use of non-Siemens controls equipment like Trane, Honeywell, etc. is only approved with the CES Flight Chief to deviate from the J&A for Siemens Controls.

18. In some case, controllers like Trane and Honeywell that were installed in the past may not provide all the capability the base will require for troubleshooting. These components may require interface cards and panels to communicate to the Siemens Desigo CC. Additional points and graphics will be required.

19. Provide Use Points Schedule requirements for integration of all control systems (e.g., Modbus, chiller, boiler, or VFD interface) and determination of points to map, share, trend, display, or alarm. These controls systems must integrate into the Siemens Desigo CC Front end. Ensure the contractor provides sufficient points and graphics to address this requirement and provide 10% margin. Base Operations will be contacted to determine the minimum required points for monitoring. The FRCS Deliverable List has guidance for point selection.

20. With the implementation of the FRCS, additional points are needed to provide trouble shooting and predictive maintenance, this will require additional points to be provided by Siemens. A typical DXR or VAV may have 128 points available for use per device. The contractor must provide the Siemens points to allow all available points from all the devices to be used and obtain graphics to display those points.

21. When a new building is being built or an existing building is being renovated, an OT stack must be required which includes an OT switches and Network Cybersecurity Devices (NCD) to be installed when the system ties into the Base Area Network (BAN). The contractor will provide these devices.

22. Control Systems should refer to UFC 4-010-06 for cybersecurity design requirements.

22.0 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 must 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):
CO will be Bernie Husted.

D. Contracting Officer Authority (COA):
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 must be the only individual authorized to in any way amend or modify the terms of this contract.

E. QA Inspector:
(TBD)

F. Technical Representative
Rexman NG, GS-12
325th CES/CENPMS

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.

END OF DOCUMENT