

**CIVIL ENGINEERING
SERVICES**

OPERATIONS MANAGEMENT

TINKER AIR FORCE BASE, OK

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PREFACE

CIVIL ENGINEERING SERVICES

OPERATIONS MANAGEMENT CONTRACT

PERFORMANCE WORK STATEMENT

72d AIR BASE WING

TINKER AIR FORCE BASE, OKLAHOMA

Base Profile and Mission

Tinker Air Force Base (TAFB) is centrally located in Oklahoma about 5 miles from downtown Oklahoma City in southeast Oklahoma County. It occupies 4,994 acres and is generally bounded on its north perimeter by I-40. Since the early 1940s, the base has been an important part of the state with a current annual economic impact of more than \$4.5 billion.

TAFB's primary mission is to manage, store, and maintain components, end items, and major weapon systems assigned to the Oklahoma City Air Logistics Center (OC-ALC), which is one of three Air Force Sustainment Center (AFSC) depot level maintenance facilities in the Air Force. The AFSC is headquartered at TAFB in the nearly mile-long building 3001.

The 72d Air Base Wing (72 ABW) is the host unit at TAFB. Their primary mission is to provide responsive installation and support services to AFSC and 45 associate units assigned to six major commands—all of which comprise TEAM TINKER.

TAFB is home to three major flying wings to include the largest flying wing in Air Combat Command, the 552d Air Control Wing. The 552d flies the E-3 Sentry Airborne Warning and Control System. The Navy's Strategic Communications Wing ONE with more than 1,300 sailors, civilians, and contractors flying and maintaining the E-6B Mercury are also headquartered on TAFB. Finally, the Air Force Reserve Command's 507th Air Refueling Wing with 1,500 members flies the KC-135R.

Other major associate Units on TAFB include the 38th Cyberspace Engineering Installation Group (CEIG) located just east of Douglas Boulevard. CEIG is responsible for planning, engineering, installing, removing and relocating communications and information systems worldwide for the Air Force. The Defense Logistics Agency, Defense Distribution Center Oklahoma City, Oklahoma, provides TEAM TINKER with 24-hour distribution support in more than 3.9 million square feet of space.

The 72d Civil Engineer Directorate (CE) enhances TAFB's mission capability by providing world class, efficient and effective support to sustain, restore, modernize, and protect TAFB's facilities, infrastructure, and environment. CE and other Wing organizations support over 31,000 military, civilian, and contractor personnel. There are over 19 Million Square Feet (msf) in over 425 facilities on TAFB.

Our objectives for this service contract reflect the above mission statement. Specifically, the provider shall strive to:

- Maintain and repair TAFB's facilities and infrastructure, both built and natural, to ensure the delivery of war-winning expeditionary capabilities to the war fighter.
- Effectively run physical plant operations and deliver high quality services.
- Continue to modernize the installation so that essential facilities and services are available to carry out assigned missions on-time and within budget.
- Continuously improve services and capabilities to meet our mission and achieve our vision.
- Operate and maintain facilities and equipment to support achievement an Air Force goal to meet an intensity reduction goal of a 25% reduction in reportable consumption (compared to an FY15 baseline) by 2025, *2018 Installation Energy Assurance Campaign Plan*.
- Encourage energy conservation and the efficient use of personnel and materials.

Ultimately, the Base Civil Engineering Government and Contractor team is responsible for proper stewardship and management of TAFB's valuable resources and compliance with applicable laws, directives, and regulatory requirements. Privatization of TAFB's family housing, potable water, sanitary sewer system and main electrical distribution systems have been instituted with the associated work requirements modified in this service contract. Contractor is responsible for coordinating work requirements with the various privatization contractors. The Performance Work Statement (PWS) which follows provides specific expectations.

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SECTION 1

1. DESCRIPTION OF SERVICES/GENERAL INFORMATION. The Contractor shall provide all personnel, equipment, tools, vehicles and fuel, supervision, and services necessary to perform Operations Management and Execution for Base Civil Engineer tasks and functions as defined in this PWS except as specified in Section 3, GOVERNMENT FURNISHED PROPERTY AND SERVICES and funding for materials through the Contractor Acquired Parts (CAP). Services are provided at TAFB and off-base locations supported by TAFB. The Contractor shall perform to the standards stated in this PWS. Historical workload data is provided in Appendix 4.6 for reference only, future workload may vary. Contractor shall provide managerial oversight, direction, and coordination for all functions and requirements identified in this PWS. Work includes a broad range of services. The Contractor shall develop a staffing plan and workload estimate that accurately reflects their approach to delivering services in fulfillment of this PWS and in compliance with the designated Minimum Team Complement (MTC) provided in Appendix 4.9.

1.1. OPERATIONS MANAGEMENT. The Contractor shall provide cost effective maintenance, repair, construction, operation, and service functions for all Real Property (RP), all Real Property Installed Equipment (RPIE), all RP similar equipment, all designated Equipment Authorization Inventory Data (EAID), except equipment noted in Appendix 4.6.1.23 that is maintained by others (this appendix is a living document and is subject to change). All property shall be maintained to a standard that prevents deterioration beyond that which results from normal wear and tear or prevents degradation of base mission. Operations Management shall be conducted in accordance with the principals and procedures outlined in AFI 32-1001, *Civil Engineer Operations*, latest version and the playbooks referenced therein.

1.1.1. Implementation of Work. This contract shall be executed consistent with AFI 32-1001 Chapter 2, *Standardized Work Prioritization* and the *Work Management Playbook*. Contractor shall prioritize all work requirements not programmed as Preventive Maintenance (PM) (Priority 2) [formerly known as Recurring Work Program (RWP)] In Accordance With (IAW) one of the designated AFI 32-1001 Work Priorities: Emergency Work (Priority 1), Scheduled Sustainment Work (Corrective Maintenance (CM)) (Priority 3), or Scheduled Enhancement Work (Priority 4A) subject to weekly review by 72 ABW/CEOER, Government Requirements and Optimization (R&O).

1.1.1.1. The Contractor will use an Information Technology (IT) system IAW AFI 32-1001 to receive verbal, electronic and written service call (work requirement) requests 24-hours-a-day, 7-days-a-week, and 365-days-per-year including holidays.

1.1.1.2. The Contractor shall ensure all work requirements (existing, external and internal) are categorized into one of the priorities identified by AFI 32-1001, Chapter 2 at onset of full contract performance and henceforth. Contractor shall document as required and establish the appropriate type of work requirements IAW AFI 32-1001. Work requirements, not identified as PM, shall be classified as Corrective Maintenance (CM) or Enhancement Work (EW) and monitored via Government's database, CE Computerized Maintenance Management System (CMMS) with a

unique tracking number. The Government Work Information Management System or next generation replacement will be referred to as CMMS throughout this document. Each work request shall be independently tracked to completion. Contractor shall notify originator or facility manager of work requirements (CM, PM and/or EW) at onset and completion to confirm that work has been satisfactorily completed. Upon completion of work, technicians will submit a Work Completion Form for originators signature, refer to Appendix 4.2.6 for an example form. The date of the signed form shall be considered the closeout date.

1.1.1.3. Serve as centralized customer service focal point. Process all work requests to include after hour calls, dispatch craftsman to emergencies, write CM. Ensure all work requests are processed within 24-hours of receipt. Maintain the night log with all pertinent information. Classify work utilizing the most current government work classification system. Implement Tinker AFB priority infrastructure listing (Appendix 4.7.10.) as the mechanism to address mission critical assets first, and considering life-cycle management. Prioritize work, maintenance, and repair of facilities and systems based on mission criticality, safety, and best return on investment with regards to urgency of repair and expenditure of resources. Provide professional, courteous, responsive customer service and accurate information. Provide work request feedback to facility managers to include for example, approved priority and completion status. Activate and manage assigned CE Emergency and Force Response activities to include for example, the Damage Control Center (DCC) and emergency support functions. Process and control work requirements for work performed by CE work forces. Maintain accountability of resources to include for example, equipment, personnel, and facilities. Maintain facility/infrastructure condition assessment data to include RPIE inventory and condition data. Maintain data entry quality and accuracy standards based on AF policy, government designated systems and database procedures, and technical guidance. Manage and post any FPCON/HPCON changes to include after hours. Ensure all RPIE items over \$20K are submitted for capitalization within 5 business days after project close-out.

1.1.2. Work Requirement Management. The Contractor shall manage, control, plan, and schedule maintenance, repair, construction, operation, and service work requirements.

1.1.2.1. Work Requirements. Contractor shall review requests for work, investigate the request, and make recommendations to accomplish the work IAW AFI 32-1001, Chapter 2. In addition, Contractor shall:

1.1.2.1.1. Maintain work requirements in CMMS ensuring current updates for appropriate labor and material cost records for all work requirements, respectively. This includes updating the shop rates annually (NLT one month prior to beginning of each option year) for each shop and equipment identification IAW *Air Force Civil Engineer Green Book Playbook*. All work performed shall be captured and charged for the designated work request number. If the description of the work request and the actual work performed does not match, Contractor shall implement necessary corrective actions to ensure proper tracking in CMMS. The Contractor shall perform “end of session” runs for the CMMS database which are necessary to deliver monthly billing reports. Contractor shall verify that CE Financial Management Office (72 ABW/CEIA) has updated CMMS compiled reports of labor, equipment, material costs and funding type for completed work requirements performed for customers on a monthly basis (submit by 5th business day of each month) or more frequently as directed by the Contracting Officer (CO). The

Contractor shall provide support service for addressing any challenges to CMMS billing. The Contractor shall take appropriate action to eliminate any duplicate work generated in the CMMS (quarterly).

1.1.2.1.2. Coordination of work requests with customers. Contractor shall prepare and send a summary (BLUF) email to Civil Engineering (CE) for utility outages, blocked access, and workspace disruptions to allow customers adequate time to adjust their work schedules.

1.1.2.1.3. Maintain facility history file in electronic format IAW AFI 33-322, *Records Management and Information Governance Program*, which is available to Government at all times, to provide historical asset record maintenance and repair records for each facility which captures PM and repair work. The facility file shall identify equipment being maintained at each respective facility and be of sufficient detail to provide R&O with information required to make facilities management decisions. The historical file shall track and identify equipment warranty and guaranteed parts, include a summary log of maintenance and repair type work, dates, type of problem, and resolution. Facility history file shall also identify equipment not receiving maintenance, but determined by Contractor to need PM.

1.1.2.1.4. Perform report runs in CMMS at request of Government to capture and validate work executed and scheduled. Weekly summary report of work in progress (WIP) CMs will be posted on a shared drive accessible by the Government at all times. The CM report will be in query-able format, updated weekly, and include the following information at a minimum: CM Number, Facility Number, Equipment UID, Location, Date Generated, Categorized Priority, Description, Status, and Comments explaining any issues. Also included in the report shall be the number of CMs completed for each previous month with the total hours expended for each CM. Equipment validation is not required at initial input, but actual equipment UID is required to be included in closeout of CM.

1.1.2.1.5. The Contractor shall update the listing shown in Appendix 4.7.10. "Priority Infrastructure", monthly electronically. This electronic document shall be accessible to all R&O and QA/COR personnel at all times. In the event any of the systems listed in the attachment fails or becomes inoperable, Contractor shall notify R&O by the next business day. R&O/COR will determine the type of work it will take to make it functional under CM and/or EW.

1.1.2.2. Types of Corrective Maintenance (CM). CM will be tracked as Work Tasks in CMMS, defined and prioritized according to AFI 32-1001, Table 2.1 and completed according to the following timelines for execution. Deviations from the prioritizations found in the AFI 32-1001, Table 2.1 may be directed by the government if situations develop affecting mission or the health and welfare of personnel on base and special events or projects directed by the Air Force.

1.1.2.2.1. Emergency CM Work. Emergency work represents immediate maintenance, safety, mission risk and will always be accomplished IAW AFI 32-1001. Emergency CM work is considered "Priority 1." Contractor shall have on-site response within 20 minutes during normal duty hours and on-site response within one hour during non-duty hours with appropriate certified and licensed personnel capable and ready to respond and mitigate the Emergency CM immediately. When emergency work is in progress and completion during normal duty hours is impossible, the Contractor shall continue the work to a point of safe mitigation, regardless of the

time required. If Emergency CM requires additional work after safe mitigation, Contractor shall close out Emergency CM and create follow-on CM of appropriate priority type for final resolution; Contractor shall ensure that all follow-on CMs include references to original Emergency CM. Contractor shall notify by telephone the Base Civil Engineer (BCE) or designated representative promptly upon discovery of significant emergencies and provide periodic updates using the BLUF process described in paragraph 1.1.2.1.2. All impacted customers shall be notified within one hour for normal duty hours and within 3 hours, but no later than one hour before beginning of the affected work areas' next shift start, for non-duty hour responses. In the event of large scale service requirements, such as storm damage or wide scale utility outages, prioritized support will be according to AFI 32-1001, Chapter 2 and/or per BCE definitions in Appendix 4.1.2.

1.1.2.2.2. Sustainment CM. The majority of customer generated daily workload will fall within this category. Contractor shall prioritize the CMs according to the AFI 32-1001, Chapter 2 Work Priorities for execution. WIP shall average no greater than 600 total open work requests over a 90 day rolling average and have 0 older than 365 days. Government reserves the right to validate CM prioritization for execution. This work category is also classified as scheduled, non-discretionary work. Work classified into this category will be considered as "Priority 3" and executed according to the following sub-categories:

1.1.2.2.2.1. Priority 3A – High Risk Work. This sub-category priority is often associated with follow-up work to an Emergency (Work Priority 1) that was responded to and downgraded IAW AFI 32-1001 and *Work Management Playbook*. Work that corrects life, health, fire, and safety deficiencies will also fall into this category. The Contractor shall have on-site response within 4 hours during normal duty hours and on-site response within 24 hours during non-duty hours. Contractor shall respond to and complete high risk work within seven calendar days of receipt (inclusive of material acquisition time).

1.1.2.2.2.2. Priority 3B - Medium Risk Work. The priority is based on the scope of work, typically medium risk, and will be responded to in an expedited manner to prevent failure. Failure to respond could lead to requirement becoming a 3A high risk. The Contractor shall respond to and complete medium risk work within 21 calendar days of receipt (inclusive of material acquisition time).

1.1.2.2.2.3. Priority 3C - Low Risk Work. This is low priority and low risk maintenance. Low risk maintenance allows longer periods to complete. When scheduling conflicts arise, asset priority must be used to further refine where to respond first. Local exception; mission priority facilities, CDCs, youth center, dormitories, lodging, chapel, gymnasiums and dining facilities with facility wide HVAC and/or plumbing work shall be prioritized 3A or 3B. The Contractor shall respond to and complete routine risk work within 42 calendar days of receipt (inclusive of material acquisition time).

1.1.2.2.3. The Contractor shall identify all infrastructure work, beyond CM scope, with a Service Request to include, but not limited to, pavements, pavement clearance, pavement markings, signage, traffic lights, and devices, water distribution system, domestic and industrial wastewater system, storm water sewer system, natural gas system, petroleum, oils, and lubricants, tank and piping systems, electric service, cathodic protection systems, utility meters, power production and

generator systems/equipment, airfield lighting and rotating beacon, final denial barriers, and deluge systems.

1.1.2.2.4. Enhancement Work (EW). Work requirement in this priority is considered as enhancement or discretionary work. Because this category does not sustain the installations as-is state but instead seeks to enhance, work classified in this category is “Priority 4” and completed at the direction of the government.

1.1.2.2.4.1. Execution and Prioritization. Work executed by the contractor will fall into one of two categories: scheduled Enhancement Work (4A) and all other Enhancement Work (4B). If engineering support is required to properly evaluate or assess a request, Contractor shall communicate with R&O and Engineering Contractor.

1.1.2.2.4.1.1. Priority 4A – Scheduled Enhancement Work. Work that does not contribute to sustainment of continued mission operations. Work in this category is for facility restoration, modernization, and could also be for a new critical mission requirement when an addition to or new RPIE is required.

1.1.2.2.4.1.2. Priority 4B – All Other Enhancement Work. This is work classified as Minor Construction or work requiring capitalization where a new Real Property Unique Identifier (RPUID) is required. Work done to upgrade, replace, or install a system may need to be capitalized and shall be routed through the Real Property Officer for validation.

1.1.2.2.4.1.3. The Contractor shall notify the requester in writing of approved 4A work. The notification shall clearly explain the work to be performed and identify the available means of accomplishment. Contractor shall contact each organization that has approved 4A work and request priorities semi-annually. Additionally, Contractor shall organize and host prioritization meetings for the 72d ABW Enhancement Work Prioritization Working Group (EWPWG) semi-annually or as directed by the Work Request Review Board (WRRB) Chairman. Contractor shall maintain a database to track work within the program. Database shall be made available to Government at all times.

1.1.2.2.5. The Contractor shall notify the originator of each work request if the respective work request has been approved or not, within three workdays of determination. Approval notification of work request will include method of accomplishment, i.e. 4A Enhancement, or Project. If EW, the approval notification shall include a Plan of Action and Milestones (POAM) to accomplish the work. Non-approved work requests shall be returned to the requester clearly explaining why it was rejected. Contractor shall maintain the WRRB meeting minutes and responses.

1.1.2.3. Work Request Review Board (WRRB). The Contractor shall conduct weekly WRRB meetings and present the proposed means for accomplishment of work requirements. The contractor shall maintain a comprehensive schedule and present the schedule for review and approval at the WRRB. The recommended method of execution shall be based on the work priorities definitions stated in AFI 32-1001 and *Work Management Playbook* or by R&O and shall provide the customer with the most efficient and cost effective means to accomplish the work. The WRRB will be chaired by R&O and the final decision method and prioritization of accomplishment will be approved by R&O.

1.1.2.3.1. Preliminary Preparations Prior to WRRB. The Contractor shall ensure requests presented at the WRRB for review have been properly coordinated.

1.1.2.3.1.1. The Contractor shall review each approved work request to validate the following has been done or verified.

- a) The work request has been properly prepared according to requirements, and ensuring appropriate coordination has been obtained for safety, fire department, health, and environmental.
- b) The work is a Civil Engineer responsibility as defined in AFI 32-1020 *Planning and Programming Built Infrastructure Projects*; and AFI 32-1001 *Civil Engineer Operations*.
- c) The requested work is not a redundant requirement, which is already identified as a facility project, CM or PM.
- d) The requested work supports the planned use of the facility.

1.1.2.3.1.2. The Contractor shall prepare preliminary Rough Order of Magnitude (ROM) estimates which include labor, material, and equipment costs using work standards accepted by the facility construction, maintenance, and repair industry as required. Work Requests that are determined to be within CM scope shall be immediately processed according to the aforementioned categories and prioritized to the appropriate shop for execution. EW requirements approved for execution by WRRB shall have a POAM updated weekly.

1.1.3. Preventive Maintenance Program (PMP) Management. PM is considered “priority 2” level work. Contractor shall evaluate, implement, and utilize existing PMP operation processes and procedures (Reference Appendix 4.3). In addition, the contractor shall draft and submit a PMP plan that complies with AFI 32-1001 and associated playbooks and that constitutes using Air Force PMTLs and building a balanced program. Workload provided is for local PMTLs. It is the contractor’s responsibility to transfer to AF PMTLs and update the PMP plan within 18 months of contract award. The PMP plan shall include but not be limited to; biweekly schedule, customer notification and coordination processes, find and fix work status and execution process, scheduled unexecuted PM execution process. The PMP plan shall be updated as deemed necessary, annually at a minimum. Contractor shall check for reference updates (UFCs, AFIs and TOs). Any additions or alterations being recommended to the PMP plan shall be coordinated and approved by R&O and backed up by data that supports asset management, prior to incorporation. The PMP plan shall provide a comprehensive yearly schedule of PMP execution. The PMP plan shall also include process and procedures to incorporate PMP replacement, opportunities shall be incorporated into the final PMP plan. Any time additions or deletions occur; the schedule shall be revised and submitted for approval by R&O. Contractor shall execute current Preventive Maintenance Program (PMP) implementing AF approved (only) PMTLs for all RP, RPIE and Real Property Similar Equipment (RPSE) requiring PM and approved by R&O. If an outage cannot be scheduled during normal working hours, Contractor shall schedule the work to accommodate the user at no additional cost to Government. Approximately 15 percent of PM work may be required to be performed outside of normal working hours, including weekends and

holidays. An initial listing of all known equipment requiring periodic maintenance will be provided by the Government.

1.1.3.1. Suggest changes to PM frequencies, schedules, equipment additions and deletions implemented by respective equipment Preventive Maintenance Task List (PMTL), and identify equipment (type, manufacturer, model, location, and condition) with Operational Risk Management (ORM) greater than 4.0 which do not currently have PM. Contractor shall obtain and validate new equipment information provided by Government that is necessary to ensure proper incorporation into the PMP, e.g. type, manufacturer, model, PMTL. Contractor shall ensure specific Unique Identification Number (UID) is assigned to new equipment. Contractor shall obtain approval from R&O prior to implementation of changes. Contractor shall update PM schedules as necessary to reflect all changes in equipment inventory. The actual PM to be performed will be determined by the Government as long as the work load effort does not exceed the level of effort identified in the workload data (+/- one man-year (1,580 hours)). Contractor shall provide monthly updates for the PMP status and notify R&O and CO to make contractual adjustments when changes equivalent to two man-year above or below contractual requirements are identified. Permanent changes to the PMP agreed to by R&O or by contract modification, shall be incorporated into the program in a timely manner not exceeding one month. Actual PM shall be performed as required by applicable PMTL, i.e. Semi-annually.

1.1.3.2. Track and notify R&O and Engineering Contractor quarterly of any obsolete or non-operational equipment which are scheduled to be maintained and any newly installed equipment which has not been previously recorded in database requiring PM. Contractor shall track and identify equipment to R&O that are inoperable, down, and/or under repair or upgrade. Contractor shall submit a list of down equipment to R&O quarterly. Contractor shall identify a listing of equipment for each shop, which is not currently on PM that may be used as PM replacement opportunities for equipment that cannot be serviced. Replacement opportunities will be discussed with R&O to develop and implement a viable replacement program. (Reference Appendix 4.3)

1.1.3.3. Perform PM according to frequencies specified in the current PMTL. Contractor shall ensure that any PMTL task requiring condition assessment or routine maintenance will be considered critical and executed, unless justification of non-performance is provided to and accepted by R&O. Contractor shall notify R&O of any unperformed equipment Condition Assessment PMTL task. Prior to implementation of PMP, Contractor shall identify estimated time to perform each PMTL task and recommended changes to respective PMTL. The contractor shall perform PM, IAW all tasks listed in PMTLs. The completed PMTLs shall have the name of the technician performing the PM work, shop code, and checkmark for all completed tasks in the PMTL and notes where applicable and save PMTLs electronically in the appropriate folder by the facility number within 14 calendar days after completion of each PMTL. The Contractor shall notify the Government of unperformed PMTL tasks and the reason not performed. All on-site condition assessment tasks performed will have results annotated on respective PMTL by servicing technician. During PM the Contractor shall perform a condition assessment of the asset per *SMS Playbook*. Completed asset condition checklist shall be submitted to Operations Engineering. The Contractor shall not defer any PM from its scheduled execution. In the event the PM cannot be executed, the contractor shall coordinate with the Facility Manager to reschedule within 2 weeks or before the maintenance frequency ends, whichever is shorter. The Contractor shall provide R&O and COR monthly with a detailed listing of PM that was

unexecuted. The listing should contain as a minimum: PM, PMTL#, UID, UID Description, UID Location, Building number, Work Location, Shop POC, explanation for deferring the PM, Facility Manager's name contacted during the initial attempt. (Reference Appendix 4.3)

1.1.3.4. Document all CM requirements generated as a result of PM execution (Find and Fix Program). Contractor shall document and track all on-site condition assessment analyses on completed PMTLs. All lab analyses and assessments performed as CM shall be documented and filed, including but not limited to oil analysis, system flow and pressure tests, calibration analysis, vibration analysis, ultrasound, thermography analysis, boiler calibrations, generator tests, etc. CM documentation and condition assessment analysis will be made available to Government at all times and filed as part of the facility historical file.

1.1.3.5. Coordinate with the respective facility managers prior to execution of PM. Paint, corrosion control hangars, test cells, etc., may require additional coordination and meeting to discuss scheduling. Name and phone number of personnel contacted shall be annotated on completed PMTL. If facility manager is not available, Contractor shall still perform PM and indicate on PMTL that contact was attempted.

1.1.3.5.1. NAVY (SCW-1 and subordinate commands) facilities may require an escort depending on force protection measures in place. Completed work in SCW-1 facilities shall be signed off by the facility manager or designated representative.

1.1.3.6. Incorporate a condition-based maintenance program as part of PMP. Contractor shall identify equipment types and processes most conducive to be incorporated into condition-based maintenance. Within three months of full contract performance, Contractor shall identify and prioritize equipment that will have condition-based maintenance, the testing methodologies to be utilized, and frequencies of testing. Contractor shall keep track of all testing results, which will be made available to Government at all times. Contractor shall also incorporate root-cause analysis investigations for all priority equipment failures. Contractor shall notify R&O for all recommendations and follow-on actions necessary to ensure successful equipment operations.

1.1.3.6.1. Ensure motor greasing requirements are based on motor design or condition assessment, not schedule. Based on the condition monitoring greasing shall be implemented for lubrication of motor bearings. In the event of a motor failure (50 horsepower (hp) and above in priority facilities) or at the request of the government, a root cause analysis shall be performed to determine the reason for the failure and documented as lessons-learned. Information shall be maintained in facility historical file.

1.1.3.7. The Contractor shall implement, administer, track and document manufacturer's recommended maintenance throughout the warranty period of newly installed equipment. The Contractor shall attend all BODs, final inspections and training and coordinate with the Engineering Contractor to receive manuals, as-built drawings, training materials, etc. All records maintenance shall be the sole responsibility of the Contractor, inclusive of tracking and maintenance requirements of newly installed equipment and manufacturer literature.

1.1.3.7.1. Equipment Requiring Certified Maintenance and Repair as a Warranty Condition. Some equipment requires certified preventive maintenance and repairs as a warranty condition. For this

equipment, procure a service contract with the original equipment manufacturer to provide these services.

1.1.3.8. Some mechanical equipment is maintained by other contractors (such as ESPC) or government personnel but may be supported by systems maintained under this contract (i.e. chilled water supply and return serving a chiller or tower maintain by others, hot water or steam piping serving boilers maintained by others, etc.). It is critical these systems (including water treatment) be maintained properly (in good working order per industry standards, manufacturer's recommendations, applicable codes, and regulations), so as to not impact the mission or energy goals. All high efficiency boilers and attached systems have critical water treatment requirements and water entering these systems shall have a hardness level less than 5 ppm. Water softener inspection shall be performed per PMTLs. Inspection data shall include date of inspection, personnel who tested, salt level, salt added, remaining salt supply, the tested ppm value, and any remarks is required at all times for these systems

1.1.3.8.1. The contractor shall make sure that the all chilled water supply and chiller systems, all boilers systems, all cooling towers (small, medium, and large) system remain free of deposits, scales, microbiological deposits, suspended solids and corrosion to avoid the system failures. Chemical treatment parameters for all chilled water supply for all chillers, water softeners for all boilers, water treatment for all cooling towers (small, medium, and large) shall be within recommended ranges per most current UFC-3-240-13FN, industry standards and manufacturer's recommendations (most stringent shall apply). Contractor shall update and maintain water treatment database/logs (electronically) within 24 hours of completion of tests. Contractor shall submit initial format of Chemical Treatment Log for R&O approval within 30 calendar days of full contract performance.

1.1.3.8.2. When an analytical test indicates that the concentration of a given chemical is not within the limits required, the contractor shall hire a third party to evaluate the testing and treatment process to determine that sampling and testing was performed properly and that the test result is valid. The frequency for the testing shall be IAW Table 6-1, Table 6-2, and Table 6-3 Chapter 6, UFC 3-240-13FN.

1.1.4. Contract Manager. The Contractor shall provide a contract manager who shall be responsible for the performance of the work. The name of this person and an alternate or alternates who shall act for the Contractor when the manager is absent shall be designated in writing to the CO. The Contractor shall provide telephone numbers of the contract manager and alternate or alternates where these persons may be contacted outside of normal duty hours. The contract manager shall be known as the Civil Engineer Operations Business Manager. In addition, contract manager or alternate shall:

1.1.4.1. Have full authority to act for the Contractor on all contract matters relating to daily operation of this contract. Operations Business Manager or alternate will have local authority to approve all purchase requests regardless of dollar amount.

1.1.4.2. Be qualified with ten years of experience; to include at least seven years of experience in increasingly complex industrial supervisory positions utilizing a combination of technical,

managerial, and financial expertise. Experience shall include documented and substantiated work at managerial level performing Civil Engineering or Public Works duties.

- Excellent analytical, logical, and project management skills—high level of personal credibility at all levels of the organization;
- Strong written and verbal communication;
- Strong program/project management, supervision, time management, and prioritization skills with the ability to define, build, and adhere to successful development processes;
- Highly effective decision making and leadership skills;
- Previous corporate, DoD and/or regional maintenance roles leading 200 or more employees including unionized employees.
- Knowledge in DoD facilities management to include wastewater, boilers, and HVAC systems
- Experience leading change and maintenance teams in multiple site environments.
- Engineering Bachelors with PE, RA, PMP from PMI and/or CFM from IFMA

1.1.4.3. Be available within twenty minutes during normal duty hours, to meet on the installation with Government personnel designated by the CO to discuss problem areas. The contract manager or designated alternate shall be on-site during normal duty hours and contingencies. During normal non-duty hours, the manager or designated alternate shall be available on-site within one hour after notification.

1.1.4.4. Schedule a PMR meeting on a semi-annual basis or as requested by the CO. Contractor shall develop procedures that document the management review process, which will be submitted for review and acceptance prior to initiation of first PMR meeting. Contractor shall identify key players recommended to attend the PMR, venue for meeting, contract performance, and conformance data, quality metrics, quality policies, identification of key process areas and process improvement events, corrective actions, review customer complaints, implemented changes that could affect management system, and improvement recommendations. Agenda for each PMR meeting will be distributed at least one week prior to meeting. Contractor shall be responsible for recording meeting minutes and record retention of these minutes. Contractor shall disseminate the minutes to whoever is identified on the PMR distribution within five workdays after the meeting. At least 24 hours prior to distribution, the Contractor shall submit draft of minutes to R&O and CO for review and approval.

1.1.4.5. Schedule a bi-weekly operations status meeting. The meeting shall include Government, Engineering Contractor, and relevant Contractor staff. The meeting will discuss current shop issues, shop support requirements, WIP, work classification issues, Government and Contractor stress factors, discussion of PM/work request executions and non-performed work, and discussion of implementable supportive mechanisms conducive to a good partnering environment. Contractor shall generate meeting agenda and send out for Government review at least 48 hours prior to meeting.

1.1.5. Asset Management Plans (AMP). The Contractor shall fully support AFI 32-1001, *Civil Engineer Operations* and PAD 12-03 which seeks to employ a sustainable asset management approach using Common Levels of Service (LoS). Contractor shall be responsible for providing support for each sub-AMP activity in this PWS that corresponds to the respective classification in

the Operations Flight as written in Headquarters United States Air Force, *Programming Plan for Implementation of Enterprise-Wide Civil Engineer Transformation*, most current version (P-Plan). Contractor will support sub-AMP development as identified in the P-Plan, participate in sub-AMP working groups, provide operational cost report analysis for high cost facilities, and provide respective equipment information validated by accurate equipment databases. Contractor shall be responsible for capturing condition information obtained from work performed on equipment tracked in the PMP. Contractor shall be responsible for providing condition assessment information for work performed to R&O and Engineering Contractor for infrastructure and facility RPIE and RP. This supports Government requirements such as but not limited to Geobase database, R&O Maintenance Master Plan development, 5-year Plan development, BUILDER Program, Roofer Program, Paver Program and red-line drawing updates for all Contractor executed system or component changes.

1.1.6. Facility Manager Program. The Contractor shall manage the Facility Managers Program IAW AFI 32-1001. Management of the program includes but is not limited to updating local facility manager policies to ensure facility managers and organizational building representatives stay current in policies related to RP, keeping accurate facility managers listing, providing initial and annual refresher facility managers training, maintaining, and updating the AFSC TAFB Handbook 32-9001, *The Facility Managers Handbook*. The Contractor shall update the Facility Manager Training Slides and publish them on the Tinker Web after approval by COR/QA, annually. The Contractor shall hold an annual town hall meeting for all facility managers.

1.1.6.1. Training and Information. Contractor shall educate facility managers on energy conservation and work classification and consult with facility managers on aspects of facility operations related to energy management. Develop and disseminate information related to energy management, building system operations, and procurement of energy efficient goods and equipment.

1.1.7. Common Output Levels of Service (COLS). The COLS level funded by Government will establish the workload effort for a given contract period. Contractor shall recommend workload and prioritizations for execution in accordance with applicable regulations and guidance for specific requirements. Government reserves the right to recommend, change, and validate recommended workload and prioritization prior to execution as long as Government recommendations do not exceed level of effort identified in the COLS level. Government will provide 60-day notice prior to changing between various COLS level. In the event that a change is required in less than 60 calendar days, negotiation will begin between the CO and Contractor. Mission essential services is defined as execution at COLS 4.

1.2. OPERATIONS EXECUTION: PAD 12-03 Task List. The Contractor shall execute the following tasks as identified in Program Action Directive (PAD) 12-03 Implementation of Enterprise-Wide Civil Engineer Transformation Operations Flight, Heavy Repair Element, Facility Systems Element, Infrastructure Systems Element and Operations Engineering Element. Tinker AFB specific tasks follow in sections 1.3 and 1.4. Items listed as “non-utility privatization only” refer to systems that have been privatized. Points of demarcation have been established for the utility privatization efforts and establish who has primary responsibility for repair maintenance. The Contractor shall be responsible for coordinating work requirements with the

various privatization contractors. Items that are crossed-out are either not applicable to Tinker AFB or will be performed by others (typically Government and/or Engineering Contractor).

1.2.1. Heavy Repair Element.

1.2.1.1. Structures section

1.2.1.1.1. Provide locksmith services

1.2.1.1.2. Perform infrastructure metal work

1.2.1.1.3. Perform Interior facility minor facility repairs.

1.2.1.1.4. Repair exterior facility

1.2.1.1.4.1. Perform structural repair

1.2.1.1.4.2. Repair concrete facility

1.2.1.1.4.3. Repair masonry facility

1.2.1.1.4.4. Repair stucco or plaster facility

1.2.1.1.4.5. Repair ceramic or quarry tile

1.2.1.1.4.6. Perform metal work

1.2.1.1.4.7. Perform welding

1.2.1.1.5. Perform RP alteration

1.2.1.1.5.1. Perform metal work

1.2.1.1.5.2. Modify interior facility

1.2.1.1.5.3. Modify exterior facility

1.2.1.1.6. Perform installation assessment and CE recovery operations after contingency

1.2.1.1.6.1. Perform damage assessment of airfield, facilities, and infrastructure systems

1.2.1.1.6.2. Conduct recovery actions of airfield, facilities, and infrastructure systems

1.2.1.1.7. Attend annual asbestos awareness training (AFI 32-1001) (IAW paragraphs 1.6.21.3.1 and 1.8.4 of this PWS)

1.2.1.1.8. Maintain roof reporting system

1.2.1.1.8.1. Conduct periodic inspections

- 1.2.1.1.8.2. Annotate existing conditions
- 1.2.1.1.8.3. Conduct investigations
- 1.2.1.1.8.4. Utilize equipment for data gathering
- 1.2.1.1.8.5. Input data into roofing database
- 1.2.1.1.8.6. Maintain accuracy of data
- 1.2.1.1.9. Repair roofing systems (e.g., BUR, SSMR, shingle, tile, membrane, asphalt, composite, metal, concrete)
 - 1.2.1.1.9.1. Repair roof distresses
 - 1.2.1.1.9.2. Repair top surface of roof
 - 1.2.1.1.9.3. Repair waterproofing membrane
 - 1.2.1.1.9.4. Repair insulation material
 - 1.2.1.1.9.5. Repair decking
 - 1.2.1.1.9.6. Repair other structural elements
- 1.2.1.1.10. Maintain roofing systems (e.g., BUR, SSMR, shingle, tile, membrane, asphalt, composite, metal, concrete)
 - 1.2.1.1.10.1. Conduct periodic inspections
 - 1.2.1.1.10.2. Identify problem areas
 - 1.2.1.1.10.3. Coordinate repair method (contract, I-H)
 - 1.2.1.1.10.4. Evaluate work performance
 - 1.2.1.1.10.5. Perform QA
 - 1.2.1.1.10.6. Perform task order close out/completion
 - 1.2.1.1.10.7. Conduct routine maintenance of gutters, roof top equipment, debris, flashing, copings, etc.
- 1.2.1.1.11. Repair interior facility
 - 1.2.1.1.11.1. Repair concrete facility
 - 1.2.1.1.11.2. Repair masonry facility

- 1.2.1.1.11.3. Perform structural repair
- 1.2.1.1.11.4. Repair stucco or plaster facility
- 1.2.1.1.11.5. Repair ceramic or quarry tile
- 1.2.1.1.11.6. Perform metal work
- 1.2.1.1.11.7. Repair interior drain, vent, and collection system
- 1.2.1.1.11.8. Perform welding
- 1.2.1.1.11.9. Repair floor covering
- 1.2.1.1.11.10. Perform minor painting
- 1.2.1.2. Pavements and equipment/grounds section
 - 1.2.1.2.1. Maintain sidewalk, bike, and jogging surface
 - 1.2.1.2.1.1. Inspect for maintenance requirement
 - 1.2.1.2.1.2. Perform maintenance on sidewalk, bike, and jogging surface
 - 1.2.1.2.2. Maintain storm drainage
 - 1.2.1.2.2.1. Clean storm drain
 - 1.2.1.2.2.2. Inspect storm drain for short-term maintenance
 - 1.2.1.2.3. Maintain driveway, parking lot, and storage area and inspect for short-term maintenance
 - 1.2.1.2.4. Execute and/or support entomology in flight line grounds weed control
 - 1.2.1.2.4.1. Weed control in pavements
 - 1.2.1.2.4.2. *Not Used*
 - 1.2.1.2.5. Repair road
 - 1.2.1.2.5.1. Repair road surface
 - 1.2.1.2.5.2. Repair curb and gutter
 - 1.2.1.2.5.3. Repair ditch and culvert
 - 1.2.1.2.6. Maintain road
 - 1.2.1.2.6.1. Maintain road surface

- 1.2.1.2.6.2. Maintain guard rail
- 1.2.1.2.6.3. Inspect road, curb, gutter, ditch, and culvert for short-term maintenance
- 1.2.1.2.6.4. Maintain curb and gutter
- 1.2.1.2.6.5. Maintain ditch and culvert
- 1.2.1.2.7. Repair fences
- 1.2.1.2.8. Repair and inspect storm drain swales and outfalls
- 1.2.1.2.9. Repair airfield
 - 1.2.1.2.9.1. Remove weeds from joints
 - 1.2.1.2.9.2. Repair pavement joints
 - 1.2.1.2.9.3. Repair asphalt and concrete pavements
- 1.2.1.2.10. Perform system operation (sweeping/snow removal/maintenance)
 - 1.2.1.2.10.1. Sweep airfield
 - 1.2.1.2.10.2. Sweep base streets
 - 1.2.1.2.10.3. Sweep parking lot
 - 1.2.1.2.10.4. Sweep open storage area
 - 1.2.1.2.10.5. Remove snow from airfield
 - 1.2.1.2.10.6. Remove snow from base streets and parking lots
 - 1.2.1.2.10.7. Maintain airfield
 - 1.2.1.2.10.8. Perform operator maintenance on equipment and vehicles.
- 1.2.1.2.11. Perform RP construction
 - 1.2.1.2.11.1. Construct access road
 - 1.2.1.2.11.2. Construct fences
 - 1.2.1.2.11.3. Construct ditch, culvert, storm drain, sub-surface drain
 - 1.2.1.2.11.4. Construct curb and gutter
 - 1.2.1.2.11.5. Construct driveway, parking lot, and storage area

1.2.1.2.11.6. Construct sidewalk, bike, and jogging surface

1.2.1.2.11.7. Submit required documents to RP for update of official records, upon completion

1.2.1.2.12. Perform RP alteration

1.2.1.2.12.1. Perform RP modification

1.2.1.2.12.2. Submit required documents to RP for update of official records, upon completion

1.2.2. Facility Systems Element.

1.2.2.1. Alarm systems section

1.2.2.1.1. Perform maintenance on RPIE fire alarm systems

1.2.2.1.1.1. Perform maintenance on control panels and annunciator equipment

1.2.2.1.1.2. Perform maintenance on initiating devices

1.2.2.1.1.3. Perform maintenance on notification appliances

1.2.2.1.1.4. Perform maintenance on digital alarm transmitters/receivers

1.2.2.1.1.5. Alter and modify fire alarm systems

1.2.2.1.1.6. Repair fire alarm systems

1.2.2.1.1.6.1. Repair control panels and annunciator equipment

1.2.2.1.1.6.2. Repair initiating devices

1.2.2.1.1.6.3. Repair notification appliances

1.2.2.1.1.6.4. Repair digital alarm transmitters/receivers

1.2.2.1.2. Repair environmental alarm system

1.2.2.2. Electric section

1.2.2.2.1. Interior electrical systems (600 volts or less)

1.2.2.2.1.1. Maintain interior electrical systems

1.2.2.2.1.2. Repair interior electrical systems

1.2.2.2.1.3. Modify interior electrical systems

- 1.2.2.2.1.4. Modify facility subsystem grounds
- 1.2.2.2.1.5. Modify computer grounds
- 1.2.2.2.2. Grounding and lighting protection system
 - 1.2.2.2.2.1. Maintain lightning protection system
 - 1.2.2.2.2.2. Maintain primary distribution system grounds
 - 1.2.2.2.2.3. Maintain facility subsystem grounds
 - 1.2.2.2.2.4. Maintain equipment grounds
- 1.2.2.2.3. Exterior electrical (non-utility privatization only)
 - 1.2.2.2.3.1. Maintain overhead distribution system
 - 1.2.2.2.3.2. Maintain underground distribution system
 - 1.2.2.2.3.3. Maintain substations
 - 1.2.2.2.3.4. Maintain switching stations
 - 1.2.2.2.3.5. Maintain electrical vaults
 - 1.2.2.2.3.6. Maintain exterior lights
 - 1.2.2.2.3.7. Maintain traffic lights (post-mounted & suspension)
 - 1.2.2.2.3.8. Maintain rotating beacons
 - 1.2.2.2.3.9. Maintain other external electrical systems
- 1.2.2.2.4. Repair exterior electrical system (non-utility privatization only)
 - 1.2.2.2.4.1. Repair overhead distribution system
 - 1.2.2.2.4.2. Repair underground distribution system
 - 1.2.2.2.4.3. Repair substation
 - 1.2.2.2.4.4. Repair switching station
 - 1.2.2.2.4.5. Repair electrical vault
 - 1.2.2.2.4.6. Repair exterior lighting.
 - 1.2.2.2.4.7. Repair traffic lights

- 1.2.2.2.4.8. Repair rotating beacons
- 1.2.2.2.5. Modify exterior electrical system (non-utility privatization only)
 - 1.2.2.2.5.1. Modify overhead distribution system
 - 1.2.2.2.5.2. Modify underground distribution system
 - 1.2.2.2.5.3. Modify substation
 - 1.2.2.2.5.4. Modify switching station
 - 1.2.2.2.5.5. Modify electrical vaults
 - 1.2.2.2.5.6. Modify exterior lighting.
 - 1.2.2.2.5.7. Modify traffic lights
 - 1.2.2.2.5.8. Modify rotating beacons
- 1.2.2.2.6. Cathodic protection (CP) systems (non-utility privatization only)
 - 1.2.2.2.6.1. Perform troubleshooting
 - 1.2.2.2.6.2. Repair and replace rectifier components (impressed current)
 - 1.2.2.2.6.3. Repair and replace anode lead conductors
 - 1.2.2.2.6.4. Replaces and install anodes (impressed current)
 - 1.2.2.2.6.5. Replaces and install anodes (sacrificial)
 - 1.2.2.2.6.6. Repair and replace structure connections (cadweld)
 - 1.2.2.2.6.7. Repair and replace structure conductors
 - 1.2.2.2.6.8. Repair, replace, and install test stations
 - 1.2.2.2.6.9. Repair and replace bonding jumpers
 - 1.2.2.2.6.10. Repair, replace, and install electrical service to rectifier (impressed current)
- 1.2.2.2.7. Airfield lighting systems
 - 1.2.2.2.7.1. Maintain and repair constant current regulators
 - 1.2.2.2.7.2. Maintain and repair control components
 - 1.2.2.2.7.3. Maintain and repair counterpoise components

- 1.2.2.2.7.4. Maintain and repair airfield lighting cables
- 1.2.2.2.7.5. Maintain and repair obstruction lights (fixtures & lamps)
- 1.2.2.2.7.6. Maintain and repair condenser discharge lights
- 1.2.2.2.7.7. Maintain and repair master sequence control timer
- 1.2.2.2.7.8. Maintain and repair approach lights (fixtures & lamps)
- 1.2.2.2.7.9. Maintain and repair runway edge lights (fixtures & lamps)
- 1.2.2.2.7.10. Maintain and repair taxiway lights (fixtures & lamps)
- 1.2.2.2.7.11. Maintain and repair approach path indicators
- 1.2.2.2.7.12. Maintain and repair isolating transformers
- 1.2.2.2.7.13. Modify lightning protection system
- 1.2.2.2.7.14. Modify primary distribution system grounds

1.2.2.3. Power production

- 1.2.2.3.1. Perform maintenance on power plant
- 1.2.2.3.2. Perform maintenance on deluge system
 - 1.2.2.3.2.1. Check and start engine
 - 1.2.2.3.2.2. Change oil and lubricate
- 1.2.2.3.3. Operate power plant
- 1.2.2.3.4. Operate diesel, gas generator, and fire deluge pumps
 - 1.2.2.3.4.1. Train base personnel on generator
- 1.2.2.3.5. Maintain generator and fire deluge pumps
- 1.2.2.3.6. *Not Used*
- 1.2.2.3.7. Perform installation assessment and CE recovery operations after contingency
 - 1.2.2.3.7.1. Perform damage assessment of airfield, facilities, and infrastructure systems
 - 1.2.2.3.7.2. Conduct recovery actions of airfield, facilities, and infrastructure systems
- 1.2.2.3.8. Maintain generator and fire deluge pumps

- 1.2.2.3.8.1. Maintain diesel generator
- 1.2.2.3.8.2. Maintain gas generator
- 1.2.2.3.8.3. Maintain transfer panel
- 1.2.2.3.9. Repair generator and fire deluge pumps.
 - 1.2.2.3.9.1. Repair diesel generator
 - 1.2.2.3.9.2. Repair gas generator
 - 1.2.2.3.9.3. Repair transfer panel
 - 1.2.2.3.9.4. Repair fire deluge pump
- 1.2.2.3.10. Installs generator equipment
 - 1.2.2.3.10.1. Installs diesel generator
 - 1.2.2.3.10.2. Installs gas generator
 - 1.2.2.3.10.3. Installs transfer panel
 - 1.2.2.3.10.4. Installs fire deluge pumps.
 - 1.2.2.3.10.5. Installs auxiliary fuel tanks
- 1.2.2.3.11. Operate diesel, gas generator, and fire deluge pumps.
- 1.2.2.3.12. *Not Used*
- 1.2.2.3.13. Renewable power generation
- 1.2.2.3.14. Maintain systems (e.g., wind turbines, solar, geothermal)
- 1.2.2.3.15. Attend annual asbestos awareness training (AFI 32-1001) (IAW paragraphs 1.6.21.3.1 and 1.8.4 of this PWS)

1.2.3. Infrastructure Systems Element.

- 1.2.3.1. Environmental control systems section
 - 1.2.3.1.1. Operate and maintain base Energy Management and Control System (EMCS) or Digital Control Systems (DCS)
 - 1.2.3.1.1.1. Maintain, operate, and install local network controller modules
 - 1.2.3.1.1.2. Obtain LAN certification for software

1.2.3.2. Water and fuels systems maintenance section

1.2.3.2.1. Perform maintenance on fire suppression systems

1.2.3.2.1.1. Perform PM on wet-pipe systems

1.2.3.2.1.2. Perform PM on dry-pipe systems

1.2.3.2.1.3. Perform PM on deluge systems

1.2.3.2.1.4. Perform PM on pre-action systems

1.2.3.2.1.5. Perform PM on water spray system

1.2.3.2.1.6. Perform PM on water mist system

1.2.3.2.1.7. Perform PM on foam systems

1.2.3.2.1.8. Perform PM on standpipe systems

1.2.3.2.1.9. Perform PM on fire pumps

1.2.3.2.1.10. Perform PM on water tanks

1.2.3.2.1.11. Perform PM on wet chemical systems

1.2.3.2.2. Perform maintenance on industrial wastewater plant

1.2.3.2.3. Perform maintenance on liquid fuel system.

1.2.3.2.3.1. Maintain tank.

1.2.3.2.3.2. Maintain valve

1.2.3.2.3.3. Maintain pump

1.2.3.2.3.4. Maintain pipeline

1.2.3.2.3.5. Maintain other system components

1.2.3.2.3.6. Maintain military service stations

1.2.3.2.3.7. Maintain fillstands

1.2.3.2.3.8. Maintain programmable logic control (PLC)

1.2.3.2.4. Perform maintenance on sewage system (non-utility privatization only)

1.2.3.2.4.1. Check lift station and main connection

- 1.2.3.2.4.2. Lubricate equipment in lift station
- 1.2.3.2.4.3. Check operability of pump station and main connection
- 1.2.3.2.4.4. Perform PM on pump station, valves, controls
- 1.2.3.2.4.5. Clean pump station wet well
- 1.2.3.2.4.6. Perform inspection and cleaning of sewage pipelines and manholes
- 1.2.3.2.4.7. Inspect telemetry alarm system
- 1.2.3.2.4.8. Inspect oil/water separators
- 1.2.3.2.4.9. Inspect/clean grease traps
- 1.2.3.2.5. Perform maintenance on water distribution system (non-utility privatization only)
 - 1.2.3.2.5.1. Perform PM on water valves
 - 1.2.3.2.5.2. Perform PM on fire hydrants
 - 1.2.3.2.5.3. Perform PM on backflow prevention devices
 - 1.2.3.2.5.4. Perform cross connection control survey on water distribution system
 - 1.2.3.2.5.5. Flushes water distribution system annually
 - 1.2.3.2.5.6. Perform PM on pump station
 - 1.2.3.2.5.7. Perform PM on water treatment
 - 1.2.3.2.5.8. Perform PM on water storage
 - 1.2.3.2.5.9. Perform PM on swimming pool
 - 1.2.3.2.5.10. Perform PM for pump station
 - 1.2.3.2.5.11. Perform PM for water treatment equipment
- 1.2.3.2.6. Perform maintenance on CP system for fuels
 - 1.2.3.2.6.1. Evaluate impressed current systems (bi-monthly)
 - 1.2.3.2.6.2. Evaluate sacrificial systems (semi-annually)
 - 1.2.3.2.6.3. Complete corrosion survey (annually)
 - 1.2.3.2.6.4. Complete water tank calibrations (annually)

- 1.2.3.2.6.5. Evaluate leaks and failures (each occurrence on protected structures)
- 1.2.3.2.6.6. Maintain CP testing equipment
- 1.2.3.2.6.7. Maintain mandatory records (each CP system)
- 1.2.3.2.6.8. Perform close-interval survey (five-year interval)
- 1.2.3.2.6.9. Compile CP annual performance booklet (annually)
- 1.2.3.2.6.10. Initiate repairs, replacements, and installations (as needed)
- 1.2.3.2.7. Repair cross-connection control and backflow
 - 1.2.3.2.7.1. Repair backflow devices in facility interiors
 - 1.2.3.2.7.2. Repair backflow devices in industrial systems
 - 1.2.3.2.7.3. Repair backflow devices on irrigation systems
- 1.2.3.2.8. Perform installation assessment and CE recovery operations after contingency
 - 1.2.3.2.8.1. Perform damage assessment of airfield, facilities infrastructure systems
 - 1.2.3.2.8.2. Conduct recovery actions of airfield, facilities, and infrastructure systems
- 1.2.3.2.9. Operate and maintains industrial wastewater plant and sewage treatment plant
- 1.2.3.2.10. Operate wastewater collection system (non-utility privatization only)
 - 1.2.3.2.10.1. Operate oil/water separator
 - 1.2.3.2.10.2. Operate automated alarm system
 - 1.2.3.2.10.3. Pretreats wastewater
- 1.2.3.2.11. Operate water distribution system (non-utility privatization only)
 - 1.2.3.2.11.1. Operate water pumps
 - 1.2.3.2.11.2. Operate fire hydrants
 - 1.2.3.2.11.3. Takes sample and tests water
 - 1.2.3.2.11.4. Perform chemical treatment on water supply
 - 1.2.3.2.11.5. Operate supervisory control and data acquisition (SCADA) automated control system or optimum system performance (pressure, pumping rates, storage volume)

- 1.2.3.2.11.6. Operate valves
- 1.2.3.2.12. Modify liquid fuels system
 - 1.2.3.2.12.1. Modify tank
 - 1.2.3.2.12.2. Modify valve
 - 1.2.3.2.12.3. Modify pump
 - 1.2.3.2.12.4. Modify pipeline
 - 1.2.3.2.12.5. Modify other components
 - 1.2.3.2.12.6. Modify military service stations and age systems
 - 1.2.3.2.12.7. Modify fillstands
- 1.2.3.2.13. Repair liquid fuel system
 - 1.2.3.2.13.1. Repair tank
 - 1.2.3.2.13.2. Repair valve
 - 1.2.3.2.13.3. Repair pump
 - 1.2.3.2.13.4. Repair pipeline
 - 1.2.3.2.13.5. Repair other component
 - 1.2.3.2.13.6. Repair military service station and age systems
 - 1.2.3.2.13.7. Repair fillstands
- 1.2.3.2.14. Modify sewage collection system and water distribution system (non-utility privatization only)
- 1.2.3.2.15. Modify/installs gas fuel distribution system
 - 1.2.3.2.15.1. Modify and installs natural gas distribution system
 - 1.2.3.2.15.2. *Not Used*
- 1.2.3.2.16. *Not Used*
- 1.2.3.2.17. Maintain fuel gas distribution system
 - 1.2.3.2.17.1. Perform PM on natural gas system
 - 1.2.3.2.17.2. Perform PM on liquid petroleum system

- 1.2.3.2.18. Repair, alter, and install interior distribution system
 - 1.2.3.2.18.1. Repair, alter, and install interior pipes and valves
 - 1.2.3.2.18.2. Repair, alter, and install plumbing fixture
 - 1.2.3.2.18.3. Repair, alter, and install cross-connection, control, and backflow
- 1.2.3.2.19. Repair water distribution system (non-utility privatization only)
 - 1.2.3.2.19.1. Repair pump stations
 - 1.2.3.2.19.2. Repair water treatment equipment
 - 1.2.3.2.19.3. Repair water storage
 - 1.2.3.2.19.4. Repair water lines
 - 1.2.3.2.19.5. Repair water valves
 - 1.2.3.2.19.6. Repair swimming pool
- 1.2.3.2.20. Repair sewage collection system (non-utility privatization only)
 - 1.2.3.2.20.1. Repair lift station
 - 1.2.3.2.20.2. Repair sewage line
 - 1.2.3.2.20.3. Repair oil separator
 - 1.2.3.2.20.4. Repair pretreatment equipment
- 1.2.3.2.21. Repair industrial wastewater plant
- 1.2.3.2.22. Repair fuel gas distribution system
 - 1.2.3.2.22.1. Repair natural gas system
 - 1.2.3.2.22.2. *Not Used*
- 1.2.3.2.23. Repair fire suppression systems
 - 1.2.3.2.23.1. Repair wet-pipe systems
 - 1.2.3.2.23.2. Repair dry-pipe systems
 - 1.2.3.2.23.3. Repair deluge systems
 - 1.2.3.2.23.4. Repair pre-action systems

- 1.2.3.2.23.5. Repair water spray systems
- 1.2.3.2.23.6. Repair water mist systems
- 1.2.3.2.23.7. Repair foam systems
- 1.2.3.2.23.8. Repair standpipe systems
- 1.2.3.2.23.9. Repair fire pumps
- 1.2.3.2.23.10. Repair water tanks
- 1.2.3.2.23.11. Repair wet chemical systems
- 1.2.3.2.24. Repair facility water and wastewater systems
 - 1.2.3.2.24.1. Repair plumbing fixtures
 - 1.2.3.2.24.2. Repair interior pipelines
 - 1.2.3.2.24.3. Repair drains
- 1.2.3.3. Pest management section
 - 1.2.3.3.1. Perform pest management
 - 1.2.3.3.1.1. Perform structural pest control
 - 1.2.3.3.1.2. Serve as inspector of pest and herbicide control
 - 1.2.3.3.1.3. Perform non-structural pest control
 - 1.2.3.3.1.4. Perform other base grounds pest control
 - 1.2.3.3.1.5. Perform MFH pest control (non-housing privatization only)
 - 1.2.3.3.1.6. Perform quarantine inspections and controls
 - 1.2.3.3.1.7. Perform direct support to the bird/wildlife aircraft strike hazard (BASH) program to include removal of coyotes, ducks, geese, badgers, deer, and other daily BASH animal hazards
 - 1.2.3.3.2. Manage pest control inventory
 - 1.2.3.3.2.1. Implement proper storage practices
 - 1.2.3.3.2.2. Load inventory into Integrated Pest Management Information System (IPMIS) database

- 1.2.3.3.2.3. Load inventory into hazardous material database
- 1.2.3.3.2.4. Maintain current material safety data sheets (MSDS)
- 1.2.3.3.2.5. Maintain current pesticide labels
- 1.2.3.3.2.6. Implement proper mixing practices
- 1.2.3.3.2.7. Develop spill management plan
- 1.2.3.3.3. Abide by Federal Insecticide, Fungicide, Rodenticide Act (FIFRA)
 - 1.2.3.3.3.1. Develop corrective actions (FIFRA) (40 CFR 152-158, 168-180)
 - 1.2.3.3.3.2. Assist determination of pesticide facility and operations' compliance with 40 CFR 16501
 - 1.2.3.3.3.3. Prepare reports (FIFRA) (40 CFR 165) provide report to MAJCOM
- 1.2.3.4. HVAC section
 - 1.2.3.4.1. Perform maintenance on heat plant
 - 1.2.3.4.2. Install and maintain HVAC systems
 - 1.2.3.4.2.1. Install and maintain chilled/ hot water systems
 - 1.2.3.4.2.2. Install and maintain steam systems and condensate systems
 - 1.2.3.4.3. Repair HVAC system
 - 1.2.3.4.3.1. Repair air handling systems
 - 1.2.3.4.3.2. Repair air conditioning equipment
 - 1.2.3.4.3.3. Repair heating equipment
 - 1.2.3.4.3.4. Install, repair, and maintain control systems
 - 1.2.3.4.3.5. Perform recurring maintenance
 - 1.2.3.4.3.6. Repair gas system
 - 1.2.3.4.3.7. Repair HVAC system
 - 1.2.3.4.3.8. Repair boilers/furnaces
 - 1.2.3.4.3.9. Repair compressed air distribution system
 - 1.2.3.4.4. Provide technical assistance (Asbestos Containing Material)

1.2.3.4.4.1. *Not Used*

1.2.3.4.4.2. Perform routine inspections during PM and shop work to assess visibly damaged friable asbestos material

1.2.3.4.5. Operate heat plant

1.2.3.4.6. Attend annual asbestos awareness training (AFI 32-1001) (IAW paragraphs 1.6.21.3.1 and 1.8.4 of this PWS)

1.2.3.4.7. Repair piping and valves for industrial system (boilers)

1.2.4. Operations Engineering Element.

1.2.4.1. Requirements & optimization section

1.2.4.1.1. Integrates and synchronizes operations flight work force: demand maintenance/customer service

1.2.4.1.1.1. Executes facility manager program to include facility manager assignment, documentation, training, and communications

1.2.4.1.1.2. Operates centralized customer request center

1.2.4.1.1.3. Receives and processes work request

1.2.4.1.1.4. Provides customer job status updates

1.2.4.1.1.5. Develops and manages in-service work plan (IWP)

1.2.4.1.1.6. Performs work IWP analysis and feedback to improve process

1.2.4.1.1.7. Initiates and develops work schedules (daily, weekly, monthly, annual)

1.2.4.1.1.8. Enters work task data into IWIMS/SMS/NexGen IT (material costs and labor information)

1.2.4.1.1.9. Develops project/work task status and other flight information for briefings

1.2.4.1.1.10. Develops and maintains audit records/files

1.2.4.1.1.11. *Not Used*

1.2.4.1.1.12. Provides coordinated work order requests for WRRB review and approval

1.2.4.1.1.13. Transfers approved work order tasks in NexGen IT for programs flight execution

1.2.4.1.1.14. Ensures work requests/tasks have been reviewed/coordinated by appropriate shop

1.2.4.1.1.15. Coordinates with and ensures WRRB attendance by appropriate agencies (e.g., fire department, safety)

1.2.4.1.1.16. Maintains process to develop a weekly, monthly, and quarterly IWP that is balanced to meet Air Force standards and leadership priorities

1.2.4.1.1.17. Collects information from each shop on available man-hours

1.2.4.1.1.18. Updates shops on all open work with regard to type of work, asset criticality (tier), and cost

1.2.4.1.1.19. Gathers shop priorities based on Air Force-standard prioritization models and adjusted for local logistical/environmental considerations

1.2.4.1.1.20. Coordinates with engineers/sub-AMP managers to ensure that shop priorities accurately reflect systems investment plan priorities

1.2.4.1.1.21. Garners operations flight commander approval of shop priorities

1.2.4.1.1.22. Aligns available man-hours to approved priorities

1.2.4.1.1.23. Ensures cross-shop coordination for any multi-craft work

1.2.4.1.1.24. Executes work order close out to include coordination with CEN and CEI to update base maps and applicable floor plans, ensure accurate RP capitalization, and ensure all costs are accurately accounted for

1.2.4.1.1.25. Publishes updated IWP on a weekly basis to NexGen IT

1.2.4.1.2. Integrates and synchronizes operations flight work force: IWIMS/SMS/NexGen IT data standards and analysis

1.2.4.1.2.1. Maintains data entry quality and accuracy standards based on Air Force policy, NexGen IT procedures, and technical guidance

1.2.4.1.2.2. Trains engineers, workforce managers, and shop-level personnel on IWIMS/SMS/NexGen IT data entry standards (e.g., cost accounting, type of work, prioritization, asset coding)

1.2.4.1.2.3. Trains engineers, workforce managers, and shop-level personnel on tools provided through transforming technology/NexGen IT (e.g., schedule trackers, asset data, party availability)

1.2.4.1.2.4. Maintains an active roster of trained data stewards representing each shop in operations flight

1.2.4.1.2.5. Trains operations shop-level personnel on data standards for input into NexGen IT (e.g., maintenance performed, failure descriptions, direct inspections)

1.2.4.1.2.6. Conducts quarterly review of each shops data entry quality, timeliness, and accuracy and address corrections through flight/element/shop leadership or through sub-AMP working groups

1.2.4.1.2.7. Provides weekly reports to the operations flight commander on KPIs with regard to productivity, service quality, work center workload, manpower balance, and skills mix

1.2.4.1.2.8. Provides IWIMS/ACES/NexGen IT reports for all sub-AMP and AMP managers to outline and align programmed investments and worst performing assets (e.g., O&M costs, service calls)

1.2.4.1.2.9. Develops any unique reports required for local needs or HHQ taskers

1.2.4.1.3. *Not Used*

1.2.4.1.4. *Not Used*

1.2.4.1.5. Integrates and synchronizes operations flight work force: contract project review integration and warranty management

1.2.4.1.5.1. Coordinates with engineering flight to gather information on all ongoing/impending contract construction

1.2.4.1.5.2. Maintains a schedule for all upcoming construction documents/meetings that involve operations flight review/attendance to include: contract specifications, design charrettes, design reviews, materials submittal, red zone meetings/inspections, O&M turn-over meetings/training, and warranty inspections

1.2.4.1.5.3. *Not Used*

1.2.4.1.5.4. *Not Used*

1.2.4.1.5.5. *Not Used*

1.2.4.1.5.6. *Not Used*

1.2.4.1.5.7. Creates and maintains a systematic process to manage warranties and ensure operations flight personnel honor and fully utilize the terms of all warranties

1.2.4.1.5.8. Holds operations flight personnel accountable for meeting suspenses and attending scheduled meetings

1.2.4.1.6. Integrates & synchronizes operations flight work force: contingency planning & response

- 1.2.4.1.6.1. Provides command/control to perform installation assessment and CE recovery operations after contingency
- 1.2.4.1.6.2. *Not Used*
- 1.2.4.1.6.3. Performs damage assessment of airfield, facilities infrastructure systems
- 1.2.4.1.6.4. Conducts recovery actions of airfield, facilities, and infrastructure systems
- 1.2.4.1.6.5. *Not Used*
- 1.2.4.1.6.6. *Not Used*
- 1.2.4.1.6.7. Monitors and operates communication equipment
- 1.2.4.1.6.8. Performs operations flight radio account custodian duties
- 1.2.4.1.6.9. Coordinates annual checklist reviews by all shops and flight leadership
- 1.2.4.1.6.10. Maintains weekly stand-by roster and stand-by procedures
- 1.2.4.1.6.11. Provides input to contingency response plan
- 1.2.4.1.7. *Not Used*
- 1.2.4.1.8. *Not Used*
- 1.2.4.1.9. *Not Used*
- 1.2.4.1.10. Manages pavements: contract project coordination
 - 1.2.4.1.10.1. *Not Used*
 - 1.2.4.1.10.2. *Not Used*
 - 1.2.4.1.10.3. *Not Used*
 - 1.2.4.1.10.4. *Not Used*
 - 1.2.4.1.10.5. *Not Used*
 - 1.2.4.1.10.6. *Not Used*
 - 1.2.4.1.10.7. Attends red zone meetings to coordinate transition to operations flight ownership/O&M
 - 1.2.4.1.10.8. Coordinates shop attendance at and attend project turn-over meetings to ensure O&M training is complete and proper documentation is kept on file

1.2.4.1.10.9. Ensures all O&M manuals for pavements are kept on file, accessible to the shops, and divested of at the appropriate times

1.2.4.1.10.10. Ensures all warranty information is catalogued according to the unit warranty tracking system and/or NexGen IT procedures

1.2.4.1.10.11. Ensures PM schedules (maintenance action sheets [MAS] in NexGen IT, PM schedule in NexGen IT) are entered and that warranties are not voided for lack of maintenance

1.2.4.1.10.12. Develops and manages the warranty process so that shops validate calls and contractors are held accountable for warranty issues

1.2.4.1.11. Manages pavements: demand maintenance

1.2.4.1.11.1. Analyzes customer work orders with regard to planned investments on pavements assets to validate the requirement and inform investment timing

1.2.4.1.11.2. Triage and prioritizes pavements work orders for work order planning

1.2.4.1.11.3. Conducts site visits and customer meetings to validate work order requirements and estimate work order man-hour/material costs

1.2.4.1.11.4. Ensures appropriate shop coordination on planned in-house work orders

1.2.4.1.11.5. Attends WRRB and make recommendations to operations flight commander

1.2.4.1.11.6. Communicates work order decisions, investment plans, and repair timelines to customers at the request of workforce managers

1.2.4.1.12. Manages pavements system: PM

1.2.4.1.12.1. Performs annual validation of PM actions required for every pavements asset (both the airfield pavements & roads/parking lots)

1.2.4.1.12.2. Ensures all PM actions are scheduled in IWIMS/NexGen IT

1.2.4.1.12.3. Aligns PM schedules to predictive materials ordering mechanisms to maximize on time delivery and minimize required storage space

1.2.4.1.12.4. Reviews PM metrics (scheduled vs. completed) on a quarterly basis at the for the Airfield Pavements sub-AMP and Pavements sub-AMP working group

1.2.4.1.12.5. Performs annual PM vs. breakdown maintenance analysis on each asset to evaluate the long-term costs associated with PM schedules compared to the replacement costs of not performing maintenance and resulting breakdown

1.2.4.1.12.6. Works with shops to change PM schedules based on analysis findings

1.2.4.1.13. *Not Used*

1.2.4.1.14. *Not Used*

1.2.4.1.15. *Not Used*

1.2.4.1.16. Manages utilities electrical systems: contract project coordination

1.2.4.1.16.1. *Not Used*

1.2.4.1.16.2. *Not Used*

1.2.4.1.16.3. *Not Used*

1.2.4.1.16.4. *Not Used*

1.2.4.1.16.5. *Not Used*

1.2.4.1.16.6. *Not Used*

1.2.4.1.16.7. Attends red zone meetings to coordinate transition to operations flight ownership/O&M

1.2.4.1.16.8. Coordinates shop attendance at and attends project turn-over meetings to ensure O&M training is complete and proper documentation is kept on file

1.2.4.1.16.9. Ensures all O&M manuals for utilities electrical systems are kept on file, accessible to the shops, and divested of at the appropriate times

1.2.4.1.16.10. Ensures all warranty information is catalogued according to the unit warranty tracking system and/or NexGen IT procedures

1.2.4.1.16.11. Ensures PM schedules (MAS in NexGen IT, PM schedule in NexGen IT) are entered and that warranties are not voided for lack of maintenance

1.2.4.1.16.12. Develops and manages the warranty process so that shops validate calls and contractors are held accountable for warranty issues

1.2.4.1.17. Manages utilities electrical systems: demand maintenance (non-utility privatization only)

1.2.4.1.17.1. Analyzes customer work orders with regard to planned investments on electrical distribution and airfield lighting assets to validate the requirement and inform investment timing

1.2.4.1.17.2. Triage and prioritizes electrical distribution work orders for work order planning

- 1.2.4.1.17.3. Conducts site visits and customer meetings to validate work order requirements and estimate work order man-hour/material costs
- 1.2.4.1.17.4. Ensures appropriate shop coordination on planned in-house work orders
- 1.2.4.1.17.5. Attends WRRB and makes recommendations to operations flight commander
- 1.2.4.1.17.6. Communicates work order decisions, investment plans, and repair timelines to customers at the request of workforce managers
- 1.2.4.1.18. Manages utilities electrical system: PM (non-utility privatization only)
 - 1.2.4.1.18.1. Performs annual validation of PM actions required for every electrical distribution and airfield lighting asset
 - 1.2.4.1.18.2. Ensures all PM actions are scheduled in NexGen IT
 - 1.2.4.1.18.3. Aligns PM schedules to predictive materials ordering mechanisms to maximize on-time delivery and minimize required storage space
 - 1.2.4.1.18.4. Reviews PM metrics (scheduled vs. completed) at the Electrical sub-AMP working group, on a quarterly basis
 - 1.2.4.1.18.5. Performs annual PM vs. breakdown maintenance analysis on each asset to evaluate the long-term costs associated with PM schedules compared to the replacement costs of not performing maintenance and resulting breakdown
 - 1.2.4.1.18.6. Works with shops to change PM schedules based on analysis findings
- 1.2.4.1.19. *Not Used*
- 1.2.4.1.20. *Not Used*
- 1.2.4.1.21. *Not Used*
- 1.2.4.1.22. *Not Used*
- 1.2.4.1.23. Manages utilities mechanical systems: contract project coordination
 - 1.2.4.1.23.1. *Not Used*
 - 1.2.4.1.23.2. *Not Used*
 - 1.2.4.1.23.3. *Not Used*
 - 1.2.4.1.23.4. *Not Used*
 - 1.2.4.1.23.5. *Not Used*

1.2.4.1.23.6. *Not Used*

1.2.4.1.23.7. Attends red zone meetings to coordinate transition to operations flight ownership/O&M

1.2.4.1.23.8. Coordinates shop attendance at and attends project turn-over meetings to ensure O&M training is complete and proper documentation is kept on file

1.2.4.1.23.9. Ensures all O&M manuals for utilities mechanical systems are kept on file, accessible to the shops, and divested of at the appropriate times

1.2.4.1.23.10. Ensures all warranty information is catalogued according to the unit warranty tracking system and/or NexGen IT procedures

1.2.4.1.23.11. Ensures PM schedules (MAS in NexGen IT, PM schedule in NexGen IT) are entered and that warranties are not voided for lack of maintenance

1.2.4.1.23.12. Develops and manages the warranty process so that shops validate calls and contractors are held accountable for warranty issues

1.2.4.1.24. Manages utilities mechanical systems: demand maintenance (non-utility privatization only)

1.2.4.1.24.1. Analyzes customer work orders with regard to planned investments on mechanical assets to validate the requirement and inform investment timing

1.2.4.1.24.2. Triage and prioritizes water and wastewater work orders for work order planning

1.2.4.1.24.3. Conducts site visits and customer meetings to validate work order requirements and estimate work order man-hour/material costs

1.2.4.1.24.4. . Ensures appropriate shop coordination on planned in-house work orders

1.2.4.1.24.5. Attends WRRB and make recommendations to operations flight commander

1.2.4.1.24.6. Communicates work order decisions, investment plans, and repair timelines to customers at the request of workforce managers

1.2.4.1.25. Manages utilities mechanical system: PM (non-utility privatization only)

1.2.4.1.25.1. Performs annual validation of PM actions required for every utilities mechanical asset (both the water & wastewater)

1.2.4.1.25.2. Ensures all PM actions are scheduled in NexGen IT

1.2.4.1.25.3. Aligns PM schedules to predictive materials ordering mechanisms to maximize on time delivery and minimize required storage space

1.2.4.1.25.4. Reviews PM metrics (scheduled vs. completed) on a quarterly basis at the for the Potable/Non-Potable Water sub-AMP and Wastewater/Stormwater sub-AMP working group

1.2.4.1.25.5. Performs annual PM vs. breakdown maintenance analysis on each asset to evaluate the long-term costs associated with PM schedules compared to the replacement costs of not performing maintenance and resulting breakdown

1.2.4.1.25.6. Works with shops to change PM schedules based on analysis findings

1.2.4.1.26. *Not Used*

1.2.4.1.27. Manages facilities electrical systems: contract project coordination

1.2.4.1.27.1. *Not Used*

1.2.4.1.27.2. *Not Used*

1.2.4.1.27.3. *Not Used*

1.2.4.1.27.4. *Not Used*

1.2.4.1.27.5. *Not Used*

1.2.4.1.27.6. *Not Used*

1.2.4.1.27.7. Attends red zone meetings to coordinate transition to operations flight ownership/O&M

1.2.4.1.27.8. Coordinates shop attendance at and attend project turn-over meetings to ensure O&M training is complete and proper documentation is kept on file

1.2.4.1.27.9. Ensures all O&M manuals for facilities electrical systems are kept on file, accessible to the shops, and divested of at the appropriate times

1.2.4.1.27.10. Ensures all warranty information is catalogued according to the unit warranty tracking system and/or NexGen IT procedures

1.2.4.1.27.11. Ensures PM schedules (MAS in NexGen IT, PM schedule in NexGen IT) are entered and that warranties are not voided for lack of maintenance

1.2.4.1.27.12. Develops and manages the warranty process so that shops validate calls and contractors are held accountable for warranty issues

1.2.4.1.28. Manages facilities electrical systems: demand maintenance

1.2.4.1.28.1. Analyzes customer work orders with regard to planned investments on mechanical assets to validate the requirement and inform investment timing

1.2.4.1.28.2. Triage and prioritizes mechanical work orders for work order planning

1.2.4.1.28.3. Conducts site visits and customer meetings to validate work order requirements and estimate work order man-hour/material costs

1.2.4.1.28.4. Ensures appropriate shop coordination on planned in-house work orders

1.2.4.1.28.5. Attends WRRB board and make recommendations to operations flight commander

1.2.4.1.28.6. Communicates work order decisions, investment plan, and repair timelines to customers at the request of workforce managers

1.2.4.1.29. Manages facilities electrical system: PM

1.2.4.1.29.1. Performs annual validation of PM actions required for every facilities electrical asset (both the power, interior electric, and alarms)

1.2.4.1.29.2. Ensures all PM actions are scheduled in NexGen IT

1.2.4.1.29.3. Aligns PM schedules to predictive materials ordering mechanisms to maximize on-time delivery and minimize required storage space

1.2.4.1.29.4. Reviews PM metrics (scheduled vs. completed) on a quarterly basis at both the power, interior electric, and alarms sub-AMP working groups

1.2.4.1.29.5. Performs annual PM vs. breakdown maintenance analysis on each asset to evaluate the long-term costs associated with PM schedules compared to the replacement costs of not performing maintenance and resulting breakdown

1.2.4.1.29.6. Works with shops to change PM schedules based on analysis findings

1.2.4.1.30. Manages facilities mechanical systems: contract project coordination

1.2.4.1.30.1. *Not Used*

1.2.4.1.30.2. *Not Used*

1.2.4.1.30.3. *Not Used*

1.2.4.1.30.4. *Not Used*

1.2.4.1.30.5. *Not Used*

1.2.4.1.30.6. *Not Used*

1.2.4.1.30.7. Attends red zone meetings to coordinate transition to operations flight ownership/O&M

1.2.4.1.30.8. Coordinates shop attendance at and attends project turn-over meetings to ensure O&M training is complete and proper documentation is kept on file

1.2.4.1.30.9. Ensures all O&M manuals for facilities mechanical systems are kept on file, accessible to the shops, and divested of at the appropriate times

1.2.4.1.30.10. Ensures all warranty information is catalogued according to the unit warranty tracking system and/or NexGen IT procedures

1.2.4.1.30.11. Ensures PM schedules (MAS in NexGen IT, PM schedule in NexGen IT) are entered and that warranties are not voided for lack of maintenance

1.2.4.1.30.12. Develops and manages the warranty process so that shops validate calls and contractors are held accountable for warranty issues

1.2.4.1.31. Manages facilities mechanical systems: demand maintenance

1.2.4.1.31.1. Analyzes customer work orders with regard to planned investments on mechanical assets to validate the requirement and inform investment timing

1.2.4.1.31.2. Triage and prioritizes mechanical work orders for work order planning

1.2.4.1.31.3. Conducts site visits and customer meetings to validate work order requirements and estimate work order man-hour/material costs

1.2.4.1.31.4. Ensures appropriate shop coordination on planned in-house work orders

1.2.4.1.31.5. Attends WRRB and makes recommendations to operations flight commander

1.2.4.1.31.6. Communicates work order decisions, investment plans, and repair timelines to customers at the request of workforce managers

1.2.4.1.32. Manages facilities mechanical system: PM

1.2.4.1.32.1. Performs annual validation of PM actions required for every facilities mechanical asset (both the HVAC/DDC & plumbing)

1.2.4.1.32.2. Ensures all PM actions are scheduled in NexGen IT

1.2.4.1.32.3. Aligns PM schedules to predictive materials ordering mechanisms to maximize on-time delivery and minimize required storage space

1.2.4.1.32.4. Reviews PM metrics (scheduled vs. completed) on a quarterly basis at both the Mechanical/HVAC Systems and Facilities Interior Utility Systems sub-AMP working groups

1.2.4.1.32.5. Performs annual PM vs. breakdown maintenance analysis on each asset to evaluate the long-term costs associated with PM schedules compared to the replacement costs of not performing maintenance and resulting breakdown

1.2.4.1.32.6. Works with shops to change PM schedules based on analysis findings

1.2.4.1.33. Manages structural systems in support of CEN Structures sub-AMP: contract project coordination

1.2.4.1.33.1. *Not Used*

1.2.4.1.33.2. *Not Used*

1.2.4.1.33.3. *Not Used*

1.2.4.1.33.4. *Not Used*

1.2.4.1.33.5. *Not Used*

1.2.4.1.33.6. *Not Used*

1.2.4.1.33.7. Attends red zone meetings to coordinate transition to operations flight ownership/O&M

1.2.4.1.33.8. Coordinates shop attendance at and attends project turn-over meetings to ensure O&M training is complete and proper documentation is kept on file

1.2.4.1.33.9. Ensures all O&M manuals for structural systems are kept on file, accessible to the shops, and divested of at the appropriate times

1.2.4.1.33.10. Ensures all warranty information is catalogued according to the unit warranty tracking system and/or NexGen IT procedures

1.2.4.1.33.11. Ensures PM schedules (MAS in NexGen IT, PM schedule in NexGen IT) are entered and that warranties are not voided for lack of maintenance

1.2.4.1.33.12. Develops and manages the warranty process so that shops validate calls and contractors are held accountable for warranty issues

1.2.4.1.34. Manages structural systems in support of CEN Structures sub-AMP: demand maintenance

1.2.4.1.34.1. Analyzes customer work orders WRT planned investments on structural assets to validate the requirement and inform investment timing

1.2.4.1.34.2. Triages and prioritizes structural work orders for work order planning

1.2.4.1.34.3. Conducts site visits and customer meetings to validate work order requirements and estimate work order man-hour/material costs

1.2.4.1.34.4. Ensures appropriate shop coordination on planned in-house work orders

1.2.4.1.34.5. Attends WRRB and makes recommendations to operations flight commander

1.2.4.1.34.6. Communicates work order decisions, investment plans, and repair timelines to customers at the request of workforce managers

1.2.4.1.35. Manages structural system in support of CEN Structures sub-AMP: PM

1.2.4.1.35.1. Performs annual validation of PM actions required for every structural asset

1.2.4.1.35.2. Ensures all PM actions are scheduled in NexGen IT

1.2.4.1.35.3. Aligns PM schedules to predictive materials ordering mechanisms to maximize on-time delivery and minimize required storage space

1.2.4.1.35.4. Reviews PM metrics (scheduled vs. completed) on a quarterly basis at the sub-AMP working group

1.2.4.1.35.5. Performs annual PM vs. breakdown maintenance analysis on each asset to evaluate the long-term costs associated with PM schedules compared to the replacement costs of not performing maintenance and resulting breakdown

1.2.4.1.35.6. Works with shops to change PM schedules based on analysis findings

1.2.4.2. *Not Used*

1.2.4.3. Material control section

1.2.4.3.1. Determines requirement and requests material

1.2.4.3.1.1. Maintains shop stock

1.2.4.3.1.2. Manages shop equipment

1.2.4.3.1.3. Manages HazMat

1.2.4.3.1.4. Trains facility managers on HazMat

1.2.4.3.2. Performs material acquisition

1.2.4.3.2.1. Processes requisition

1.2.4.3.2.2. Receives material

1.2.4.3.2.3. Manages holding area

1.2.4.3.2.4. Manages government-operated CE supply store (GOCESS)

- 1.2.4.3.2.5. Provides QAE support for contract-operated CE supply store (COCESS)
- 1.2.4.3.2.6. Manages residual storage
- 1.2.4.3.2.7. Retrieves property from vendor
- 1.2.4.3.2.8. Tracks material
- 1.2.4.3.2.9. Closes out work order
- 1.2.4.3.2.10. Manages HazMat program
- 1.2.4.3.2.11. Maintains CEMAS data base
- 1.2.4.3.2.12. Accomplishes post transaction
- 1.2.4.3.2.13. Manages due-in-for maintenance (DIFM) items
- 1.2.4.3.2.14. Monitors shop stock
- 1.2.4.3.2.15. Coordinates adjusted levels with CEO elements
- 1.2.4.3.2.16. Provides customer training
- 1.2.4.3.2.17. Accomplishes end-of-year close-out
- 1.2.4.3.2.18. Provides assistance to cost center ECs to include coordination with logistics readiness squadron (LRS)

1.2.4.4. U-Fix-It program

- 1.2.4.4.1. Develops, updates, and maintains program guidance
- 1.2.4.4.2. Publishes guidance and trains facility managers/housing occupants on program
- 1.2.4.4.3. Maintains log of personnel authorized to receive/pull U-Fix-It materials
- 1.2.4.4.4. Coordinates/approves “simple” maintenance tasks identified under U-Fix-It program
- 1.2.4.4.5. Oversees/Manages U-Fix-It Store where in existence
- 1.2.4.4.6. Coordinates and orders U-Fix-It program materials/supplies as needed

1.2.4.5. Vehicle management

- 1.2.4.5.1. Submits vehicle request
- 1.2.4.5.2. Makes internal unit level vehicle assignment

- 1.2.4.5.3. Manages GSA fuel card use IAW local policy
- 1.2.4.5.4. Coordinates and picks up new or replacement GSA vehicle
- 1.2.4.5.5. Monitors status of vehicle fleet
- 1.2.4.5.6. Coordinates with LRS vehicle management
- 1.2.4.5.7. Tracks vehicle repair status
- 1.2.4.5.8. Reports and investigates incident
- 1.2.4.5.9. Attends vehicle meetings
- 1.2.4.5.10. Monitors vehicle training program
- 1.2.4.5.11. Develops and maintains vehicle control managers program book
- 1.2.4.5.12. Develops, updates, and maintains squadron master vehicle training library
- 1.2.4.5.13. Develops, updates, and maintains appropriate forms and documents vehicle
- 1.2.4.5.14. Inspection forms, original titles/ownership documents, registers for
- 1.2.4.5.15. Ancillary equipment and vehicles (e.g., non-Air Force Equipment Management Systems [AFEMS] managed/procured), of form 43-civilian fitness, vehicle authorization listings [VAL])
- 1.2.4.5.16. Administers flight line drivers test (when appropriate)
- 1.2.4.5.17. Performs scheduled and random inspections
- 1.2.4.5.18. Prepares weekly, monthly, and annual reports
- 1.2.4.5.19. Performs liaison duties as vehicle control officer (VCO) IAW AFI 24-302, Vehicle Maintenance Management
- 1.2.4.5.20. In conjunction with the local vehicle management & analysis, establishes vehicle priority recall listing and minimum essential level

1.3. OPERATIONS EXECUTION: Tinker AFB Task List. The Contractor shall execute operations IAW AFI 32-1001, *Civil Engineer Operations*. Contractor shall use equipment maintenance records and current technology solutions to provide early notification of pending equipment and system failures. Contractor shall provide at least two full-time dedicated personnel, Chief of Operations and Deputy, fully qualified with over ten years experience to provide oversight of operations that will be available for open discussions with R&O when Government concerns and operations issues arise.

1.3.1. Heavy Repair Element. The Contractor shall maintain, repair, construct, and modify all RP, RPIE, and directed non-RP facilities and equipment assigned to TAFB to ensure cost effective, quality, safe, and reliable facilities.

1.3.1.1. Structures section. Maintain, construct, repair, paint, and modify structural systems and wooden, masonry, metal, and concrete buildings. Fabricate and repair components of buildings to include for example, locks, utility systems, real property, and associated non-RPIE items. Establish and maintain an active Roof Inspection Program.

1.3.1.2. Locksmith. The Contractor shall be responsible for managing, maintaining, and repairing the base's current grand-master key code systems and any requirements for additional grand-master key systems. Contractor shall provide a written evaluation to CO of cost encumbrances if the degree of expense to maintain additional grand-master key systems to be disadvantageous, and encumber the Contractor financially by implementation of changed directives. Work excludes MFH units. In addition, Contractor shall:

1.3.1.2.1. Provide locksmith services by an Oklahoma State licensed locksmith and accomplish key control to secure facilities, to include support for 72 ABW/CEF's use of Knox Box key control system.

1.3.1.2.2. Install, maintain, repair, or replace Department of Defense (DoD) approved safe container drawers, vault doors, programmable and combination locks.

1.3.1.2.3. The Contractor shall be responsible for insuring request for repinning cores are validated by facility managers to avoid misuse or unauthorized access to Government facilities.

1.3.1.2.4. Re-key locks and systems when requested to ensure security. Contractor shall ensure after-duty-hours service calls for lockouts are accomplished jointly with Security Forces.

1.3.1.3. Roofing. The Contractor shall repair, maintain, inspect, and track conditions of all facility roof systems to ensure full service life expectancy IAW AFI 32-1001, *Civil Engineer Operations*, and UFC 3-110-03, *Roofing*, and document condition in SMS Builder or current database. Roof maintenance and inspection records shall be updated and maintained within ten workdays after inspection. Contractor shall ensure that roof drainage systems effectively remove water from respective facility. Maintenance and repair work shall meet the roof manufacturers' requirements to prevent nullifying roof warranties. The Contractor shall conduct housekeeping, clear drainage system, secure loose fasteners, sealant replacement, and note conditions that require further attention when performing maintenance inspections. During maintenance inspections Contractor shall identify and remove debris from roofs to avoid FOD issues.

1.3.1.4. Floor Coverings. The Contractor shall be responsible for CM level maintenance and repair of existing floor coverings and floor coatings in facilities. Carpet replacement shall meet the requirements set forth in UFGS 09 68 00.

1.3.1.5. Painting Service. The Contractor shall be responsible for CM level paint services for RP maintenance and repair. Contractor shall achieve a uniform and complete coverage throughout the substrate surface with maximum effort used to match colors. All work shall meet the requirements of the *Base Architecture Compatibility Standards*. Contractor shall be responsible

for disposal of all paint, paint containers, and paint related materials. Contractor shall not pour paint or paint related materials into the storm drainage system, sewage system, or place in dumpsters. Upon completion of daily work, staging, scaffolding, and ladders shall be secured safely at the site.

1.3.1.6. Pavements, Drainage and Fences. The Contractor shall inspect, repair, and maintain airfield pavements, road and bridge surfaces, curbs and gutters, sidewalks, parking lots, drives and driveways, guard rails, parking blocks, paths, trails, fencing systems, and airfield pavements to ensure industry standard service life expectancy. The perimeter and security fencing, pavements (roads, potholes, parking lots and airfields) and storm drains shall be 100% inspected on an annual basis (utilizing monthly inspections), after seasonal changes, storms and natural disaster events and shall identify all repair requirements and remove all debris utilizing CM. In addition the Contractor shall:

1.3.1.6.1. Maintain and repair airfield pavements in accordance with UFC 3-250-08FA, *Standard Practice for Sealing Joints and Cracks in Rigid and Flexible Pavements*, UFC 3-270-01, *O&M: Asphalt and Concrete Pavement Maintenance and Repair*, UFC 3-270-07, *O&M: Airfield Damage Repair*, and UFC 3-270-08, *Pavement Maintenance Management*. Contractor shall coordinate and comply with Base Operations requirements when performing maintenance or repairs on the airfield.

1.3.1.6.2. Repair potholes and cracks. All potholes and significant cracks traversed by pedestrians and vehicles identified during inspections shall be scheduled for repair and/or filling by CM. Contractor shall consider potholes which are dangerous to vehicle operation as an emergency. Contractor shall apply herbicide to cracks as necessary to remove weeds prior to sealing.

1.3.1.6.3. Maintain, repair, and construct ditches, culvert storm drains, catch basins, impoundments, subsurface drains, flood gates, and outlets to allow free flow of waters to natural basins or collecting points at all times. All debris shall be removed from open concrete trenches and culverts. Airfield drainage will comply with AFI 91-212, *Bird/Wildlife Aircraft Strike Hazard (BASH) Management Program*.

1.3.1.6.4. Contractor shall inspect and remove debris and silt to ensure continuous free flow of water in open drainage systems, outfalls, spill gates, and flood gates, prior to arrival of inclement weather. In the event that water does not flow off base and creeks reach flood levels, Contractor shall provide a means to prevent water from entering facilities.

1.3.1.6.5. Maintain, repair, and install security fences and gates to meet the requirements of UFC 04-022-03, *Security Fences and Gates*. Contractor shall inspect, maintain, and repair masonry, chain link, metal, stockade, split rail, and any other fencing system.

1.3.1.6.6. Inspect, repair, install, and maintain all traffic lights, controls, and signage. All traffic control devices shall meet the requirements of the current *Manual on Uniform Traffic Control Devices* (MUTCD). Contractor shall inform R&O and CO of any updates, revisions or new requirements effective after contract start date, which directly affects management of the program. Notification shall include required and/or recommend modification to program management and contractual implications.

1.3.1.6.7. Maintain, repair, and install all facility and installation signage including electronic marquee signs after receiving notification from the Base Comprehensive Planning and Architecture Compatibility R&O. Contractor shall ensure that signage meets the requirements of UFC 3-120-01, *Design: Sign Standards*.

1.3.1.6.8. Provide service for special events to include additional sweeping, installing, and removing portable barricades, stanchions, cones, signs, and bleachers and reviewing stands. Contractor shall relocate barriers for special events, traffic control, and at gates and priority facilities.

1.3.1.6.9. Respond to all Security Forces Active Vehicle Barriers activations to reset barriers after a barrier strike or failure to lower. Contractor will respond to service calls as an emergency CM. Contractor shall coordinate with Security Forces and R&O during these events.

1.3.1.7. Pavements Clearance. The Contractor shall establish a snow and ice control program to provide continuous mission capability by removing snow and ice from airfield pavements, base streets, Entry Control Points (ECP) and driveways to meet the requirements of TAFB Plan 32-1002, *Snow and Ice Control*. The Government will provide fuel when commercial carriers cannot make deliveries due to hazardous road conditions. The Government will maintain the keys and the contractor shall reimburse the Government for all fuel purchased during these emergency situations. In addition the Contractor shall:

1.3.1.7.1. Prepare and maintain the Snow and Ice Control Plan and form a Snow and Ice Control Committee in accordance with AFI 32-1001, *Civil Engineer Operations*.

1.3.1.7.2. Operate the snow control center to meet the requirements of AFI 32-1001, *Civil Engineer Operations*.

1.3.1.7.3. Establish a separate snow and ice control program for Combat Support Activity Group (CSAG) ramp areas identified in workload data. (See Appendix 4.5.2.5)

1.3.1.7.4. Sweep airfield pavements as tasked by COR or Base Operations personnel to remove debris and prevent Foreign Object Damage (FOD) to aircraft, but as a minimum, per the schedule provided in workload data. FOD elimination is a top priority for TAFB and compliance with this requirement is essential for successful mission operations at TAFB.

1.3.1.7.5. Sweep debris from base streets and driveway aprons as needed to support base plans, e.g., storm water management plans, at least weekly.

1.3.1.7.6. Respond to special events such as airshows that require additional sweeping.

1.3.1.7.7. Assess all snow removal equipment after each snow season and report health of equipment to R&O.

1.3.1.8. Playground Equipment and Exercise Stations. The Contractor shall inspect, maintain, and repair Government-owned playground equipment, exercise stations, and fall zones on TAFB excluding playground equipment located in MFH on a quarterly basis. The Contractor shall

ensure that playground equipment is IAW the current American Society for Testing Materials and Consumer Product Safety Commission (ASTM/CPSC) Playground Audit Guide.

1.3.1.8.1. Contractor shall perform inspection of all playground equipment IAW current CPSC's Publication Number 325 and 5065 *Public Playground Safety Handbook* and ASTM/CPSC *Playground Audit Guide* on a quarterly basis. The Contractor shall update all respective records within 5 workdays after inspection and maintain all the records of the inspections performed IAW the Play Ground Audit Forms described in the ASTM/CPSC *Playground Audit Guide* for at least five years. The Contractor shall maintain the logs of the inspection electronically and be available to Government at all times.

1.3.1.9. Demolition Support Services. The Contractor shall support TAFB demolition requirements by disconnecting utility services and salvaging RPIE and material suitable for reuse for respective facilities via a work request allocation coordinated through R&O. Demolition preparation is the utility service termination of all utilities feeding or passing through the facility to be demolished. The utility shall be terminated at a location outside the facility in a permanent manner in which it is safe to perform demolition on the facility without further outage or utility relocation. Material and real property equipment suitable for reuse shall be incorporated back into the Contractor Acquired Parts at no additional cost to the Government. Contractor shall provide to Engineering Contractor redline drawings of any changes to the utility master plan.

1.3.1.9.1. R&O shall identify the work to be accomplished via work request based on a prioritized listing of buildings to be demolished. Upon receipt of a validated work request, the Contractor shall perform a site visit with R&O to insure the scope of work is understood. A proposed schedule for the work to be accomplished shall be submitted from the Contractor within 5 workdays.

1.3.1.10. Interior Modular Structures. The Contractor shall inspect, maintain and repair interior modular structures and supporting utility systems identified in the workload data. Interior modular structure is defined as any modular structure that is located within another building. An interior modular structure may support industrial or administrative processes.

1.3.1.11. Fixed Ladders. The Contractor shall inspect, maintain, and repair all fixed ladders on RP facilities and Real Property Installed Equipment (RPIE) IAW AFMAN 91-203, *Air Force Occupational Safety, Fire, and Health Standards*. Each ladder shall be clearly labeled upon completion of inspection. Contractor shall update an inspection records database within five workdays after inspection.

1.3.2. Facility Systems Element. The Contractor shall manage and perform all activities and functions related to controls, alarms, electrical, power production, airfield lighting systems and associated tasks. Inventory all RP, accountable RPIE, and associated non-RPIE items IAW higher headquarters directives. Maintain and update collected data in government designated systems and databases, as required. Ensure facility systems comply with the most current DoD, AF, federal, state, local requirements and environmental regulations.

1.3.2.1. Fire, Environmental, Warning, and Intrusion Alarm Systems. The Contractor shall install, repair, modify, test, maintain, and inspect fire alarm systems, disaster warning system, mass

notification systems, and intrusion alarm systems to ensure safe and reliable facilities that meet the requirements of current NFPA and the original equipment manufacturer's instructions using licensed and/or qualified personnel. Contractor shall ensure that there are no false alarms called due to faulty workmanship of Contractor personnel and/or inadequate coordination between shops and construction contractors.

1.3.2.1.1. Contractor shall ensure that repairs, modifications, and additions are compatible with the existing systems.

1.3.2.1.2. Contractor shall monitor all fire alarm systems on a daily basis and open work task to correct all Trouble, Supervisory and No Reply signals. A Monaco D-21 System is available to constantly monitor all systems on Tinker.

1.3.2.2. Interior Electrical. The Contractor shall repair and maintain RP electrical systems to meet the National Electric Code (NEC) and TAFB Electrical Standard to ensure safe and reliable electrical systems using licensed personnel. Contractor shall maintain RP lighting levels to meet the minimum illumination standard of the Illuminating Engineering Society of North America (IESNA) Lighting Handbook current edition. Contractor is responsible for replacing bulbs in areas with lighting fixtures greater than or equal to 10 feet above the floor; Facility Managers are responsible for areas below 10 feet and are not complex in nature. In addition the Contractor shall:

1.3.2.2.1. Monitor for power quality problems, resolve any quality discrepancies, and balance existing loads.

1.3.2.2.2. Identify and repair fire and safety hazards in electrical system.

1.3.2.3. Grounding, Lightning Protection, and Corrosion Control Systems. The Contractor shall install, test, repair, and maintain grounding systems and lightning protection systems to meet the requirements of UFC 3-575-01, *Lightning and Static Electricity Protection Systems*, and NFPA 780 and AFMAN 32-1065, *Grounding and Electrical Systems* in their entirety with qualified personnel. Contractor shall maintain, test, repair corrosion control systems with proper recordkeeping in adherence with AFI 32-1001, *Civil Engineer Operations*, UFC 3-570-01, *Cathodic Protection*, UFC 3-570-06, *O&M: Cathodic Protection Systems*, and UFC 3-240-13FN, *Industrial Water Treatment Operation and Maintenance*. Contractor shall notify R&O and CO when any applicable AFI or UFC revision and/or supplement for any requirement changes annually. Notification will include procedural and contractual impacts resulting from changes. In addition Contractor shall:

1.3.2.3.1. Ensure that an effective corrosion control program is in place. Provide qualified/certified corrosion control technicians. Implementation of the program shall encompass all areas of corrosion control, compliance with current applicable Federal, DOD, AF and state regulations, training requirements for respective craftsman, availability of inspection and testing equipment, PM scheduling, acceptable sampling methodology, recordkeeping, problem investigations, and mitigation recommendations.

1.3.2.3.2. Update working maps and drawings devoted to cathodic protection systems when changes occur and shall ensure updates are of such quality that clear, legible reproductions can be made from them. Maps shall annotate the piping and structures to indicate the type of metal used

and shall show existing and recommended cathodic protection systems so that an accurate accounting of these systems is established. Contractor shall provide to Engineering Contractor updated working maps and drawings for incorporation in to base record drawings.

1.3.2.3.3. Conduct soil and pH level testing following any line break to ensure adequate cathodic protection of metallic systems and cathodic protection shall be added when test results indicate a failure due to corrosion. Leak information shall be maintained and information annotated on AF Form 1687 or R&O approved equivalent form for all leaks and failures. Contractor shall develop a database, which shall be updated monthly with inspections and test records.

1.3.2.3.4. Update and maintain test and inspection records for all Grounding, Lightning Protection, Cathodic Protection, Grounding Systems, Water Treatment Operation and Maintenance and Corrosion Control Systems to meet the requirement of current NFPA 780 , AFI 32-1001, AFMAN 32-1065, AFMAN 32-1067, UFC 3-570-01, UFC 3-575-01, UFC 3-240-13FN, and UFC 3-570-06. Data shall be provided in electronic format which addresses Geobase requirements and available to the Government. Contractor shall develop and submit the Annual Cathodic Protection Report which meets the requirements of the aforementioned regulations. (Reference Appendix 4.3)

1.3.2.4. Electrical Distribution and Service. The Contractor shall document, operate, maintain, and repair the electrical power transmission and distribution system at TAFB only between the OG&E points of demarcation and the point where interior electric maintenance begins in order to achieve the most efficient, reliable, safe, and economical distribution of electrical power.

1.3.2.4.1. The Contractor shall install and remove decorative lighting and banners at base chapel, event center, and installation headquarters in support of Holiday celebrations.

1.3.2.4.2. The Contractor shall respond to all electrical outages as an emergency. Contractor shall provide temporary and emergency power distribution services for the TAFB owned part of the electrical distribution system to accomplish repairs and minimize downtime. Contractor will contact OG&E when they are needed and serve as the interface between OG&E and Government with respect to outage issues and repair.

1.3.2.4.3. The Contractor shall ensure that all security, parking lot, street, ramp, and pedestrian sidewalk lighting are operational and performing as intended.

1.3.2.4.4. The Contractor shall ensure that all electrical work is in compliance with UFCs, the NEC, National Electrical Safety Code (NESC), and TAFB Electrical Standard. Contractor shall mark all electrical equipment, motors, and panel boxes to meet the requirements of UFCs, the NEC, and NFPA 70A.

1.3.2.5. Electric Power Systems. The Contractor shall provide, operate, inspect, test, exercise, and maintain EAID generators and RPIE generators including, but not limited to their support system (i.e. backup battery, auto/manual transfer switches, etc.), assigned to CE. The Contractor shall meet the requirements of AFMAN 32-1062, *Electrical Systems, Power Plants and Generators*, and UFC 3-540-07, *Operation & Maintenance (O&M): Generators*, in their entirety and the original equipment manufacturers' maintenance instructions to ensure safe and reliable electric power systems. A list of facilities with generators is located in the TAFB's Civil Engineer

Contingency Response Plan (CECRP) 10-211. Contractor shall inform R&O of any updates, revisions, or new requirements effective after contract start date, which directly affects management of the program. Notification shall include required and/or recommended modifications to program management and contractual implications.

1.3.2.5.1. Generator system operations, repair, inspections, and maintenance shall be performed IAW AFMAN 32-1062, *Electrical Systems, Power Plants and Generators*, UFC 3-540-07, *Operation & Maintenance (O&M): Generators*, AFMAN 32-7002, *Environmental Compliance and Pollution Prevention*, AFMAN 32-1067, *Water and Fuels Systems, Spill Prevention Control and Countermeasures Plan (SPCC)* also known as the *Oil and Hazardous Substance Integrated Contingency Plan Emergency Response Action Plan Summary* for Tinker Air Force Base, Oklahoma (TAFB ICP Plan 19-2) and all federal/state/local environmental regulations and AFMAN 32-1062, *Electrical Systems, Power Plants and Generators*. AFMAN 32-1062 requires compliance with NFPA 70B, *Recommended Practice for Electrical Equipment Maintenance*, AFMAN 32-1062 requires that the Original Equipment Manufacturer (OEM) maintenance and operating instructions be followed. (Reference Appendix 4.3) Generator systems include tanks which are a source of fuel for running the generator.

1.3.2.5.2. The Contractor shall ensure compliant operation and inspections of all emergency generator fuel tanks (gen-set, belly, external, UST, AST, day tank) and fire pump fuel tanks serviced under this PWS IAW all federal, state, and local fuel storage tank environmental regulations, *Spill Prevention Control and Countermeasures Plan (SPCC)* also known as the *Oil and Hazardous Substance Integrated Contingency Plan Emergency Response Action Plan Summary* for Tinker Air Force Base and AFMAN 32-1067, *Water and Fuels Systems*. Inspection records must be maintained in the Storage Tank Accounting and Reporting database and available to the Government at all times.

1.3.2.5.3. The Contractor shall ensure compliant operation of all emergency engines (generators and fire pumps) serviced under this PWS IAW the following air quality regulations: 40 CFR Part 63, Subpart ZZZZ, *NESHAP for Stationary Reciprocating Internal Combustion Engines (RICE)*; CFR part 60, Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*, OAC 252:100, *Air Pollution Control* and AFMAN 32-7002, *Environmental Compliance and Pollution Prevention*.

1.3.2.5.4. The Contractor shall exercise extreme diligence to prevent any generator or fire pump engine from exceeding any operating limit (i.e., 50 hr/yr, 100 hr/yr, 500 hr/yr or annual) specified in air quality regulations. The Contractor shall maintain records of these operating parameters using 72 ABW/CEIE form: *Emergency Engine Air Compliance Log*, taking immediate preventative action for an impending exceedance of malfunction (50hr/yr) or non-emergency use (100 hr/yr) limit (Contact R&O to determine appropriate preventative action for impending limit). The Contractor shall provide immediate notification to 72 ABW/CEIE (Air Quality) when any parameter's limit is exceeded. The Contractor shall retain *Emergency Engine Air Compliance Log* records for at least five years to include attaching documentation of any oil analyses, off base fuel spec or emissions related maintenance directly to the annual *Emergency Engine Air Compliance Log* itself to ensure retention of these required records. The Contractor shall acquire and maintain manufacturers written operating instructions (or O&M manuals) for the installed life

of the engine plus five years. These records shall be maintained under the control of the shop supervisor in a centralized location for ease of inspection.

1.3.2.5.5. The Contractor shall document generator and fire pump inspections and maintenance using applicable forms. The date, time of operation of the engine, and the reason for generator operation shall be recorded on AF Form 487, *Generator Operating Log (Inspection Checklist)* as specified in the applicable *Preventative Maintenance Task List (PMTL)*. All non-routine maintenance performed on generators will be recorded on AF IMT 719 within 5 workdays after maintenance. Contractor shall maintain completed AF Form 487 and AF IMT 719 IAW AFMAN 32-1062. Contractor may substitute equivalent forms to capture data with approval from R&O. Contractor shall ensure these records are retained for five years. Hard copies of each inspection, testing, operational testing, and maintenance activity shall be maintained under the control of the shop supervisor in a centralized location unless archived in APIMS. Contractor shall maintain records in APIMS per AFMAN 32-7002. Contractor shall also maintain paper records until such time as deemed unnecessary by 72 ABW/CEIE. Ensure Facility Manager signs off on AF Form 487 upon each load test. APIMS power module and AF Form 487 are deemed equivalent terms.

1.3.2.5.5.1. Contractor shall notify R&O within one working day if the user denies a semi-annual or annual generator test requiring a facility load.

1.3.2.5.5.2. Contractor shall notify R&O of any unscheduled outage requiring generator support within one workday of discovery. Notification shall include generator runtime and performance summary of backup system.

1.3.2.5.5.3. Contractor shall ensure EAID units are removed from building(s) once emergency operations have ceased. Contractor shall not allow any EAID to remain at a building for more than 12 consecutive months.

1.3.3. Infrastructure Systems Element. The Contractor shall manage and perform all activities and functions related to Tinker AFB infrastructure systems. Systems include utilities maintenance, liquid fuels maintenance, interior plumbing, pest management, HVAC, Vertical Transportation Equipment, and associated tasks. Inventory all real property, accountable RPIE, and associated non-RPIE items IAW higher headquarters directives. Maintain and update collected data in government designated systems and databases, as required. Ensure infrastructure systems comply with the most current DoD, AF, federal, state, local requirements and environmental regulations.

1.3.3.1. Fire Protection Systems. The Contractor shall ensure all fire protection, deluge, high expansion, detection, and pumping systems are safe, reliable, and fully operable, using qualified personnel. Contractor shall operate, repair, maintain, test, and inspect fire suppression and water deluge systems, Aqueous Film Forming Foam (AFFF) suppression, High Expansion Foam (HEF) systems, and pump house facilities and systems to meet the requirements of UFC 3-601-02, *Operations and Maintenance: Inspection, Testing and Maintenance of Fire Protection Systems*. AFFF suppression systems shall also be in compliance with National Pollutant Discharge Elimination System (NPDES) Permit OK0000809 Part II, *Maintenance of Aqueous Film Forming Foam (AFFF) Firefighting systems* (Reference Appendix 4.4.2). All failures and malfunctions shall be immediately reported to the 72 ABW/CEF, and those not classified as emergencies shall be considered as Priority 3A. Contractor shall immediately notify Fire and Emergency Services

Division 911 Center and Fire Prevention Office on all impairments and outages affecting fire suppression system to include commercial cooking systems, sprinklers, foam suppression systems, water storage tanks, and fire pumps for emergency situations and prior to COB of next working day for all other issues.

1.3.3.1.1. Contractor shall ensure no false AFFF dumps due to poor maintenance or Contractor error and shall be held liable for cost encumbrances attributable to clean up operations.

1.3.3.2. Sanitary and Industrial Wastewater System. The Contractor shall cleanout, inspect, operate, repair, and maintain sanitary sewage collection systems, its associated components and lift stations systems associated with these sewage collection systems to ensure safe, operational, and reliable sanitary wastewater removal to prevent backups and overflows with certified personnel commensurate with the respective requirement being executed. Contractor is responsible for cleanout of all system components as required for maintenance and repair. Contractor shall ensure spill quantity and volumes are kept under control through proper operational and maintenance practices. In addition, Contractor shall:

1.3.3.2.1. Cleanout, inspect, operate, repair, and maintain the sanitary waste and oil and water separator systems to meet the requirements of AFMAN 32-1067, *Water and Fuel Systems*; UFC 3-240-02, *Domestic Wastewater Treatment*, SFIM-AEC-EQ-CR-200010, *Multiservice Oil/Water Separator Guidance Document*, OPDES Permit No. OK0000809, OKC Industrial Wastewater Discharge Permits No. 0029-FC and 0029-TAC, OAC 252:616, TAFB Plan 19-3, *Industrial Wastewater Emergency Response and Control Plan*, TAFB Plan 19-2, *Oil and Hazardous Substance Integrated Contingency Plan*, and UFC 3-240-01, *Wastewater Collection*.

1.3.3.2.2. Perform daily inspections of each sanitary and industrial waste lift station to determine and correct any discrepancies to ensure continuous operation of the system.

1.3.3.2.3. Clean and flush all sanitary sewage lines annually and at any time there is a line stoppage or reduction of flow rate due to partial stoppage. Contractor shall utilize CMMS to identify and show that respective gravity lines have been properly flushed and cleaned. The Contractor shall also be required to locate and identify ongoing or chronic sewage line stoppage and to locate suspected line breaches or breaks to meet the requirements of UFC 3-240-02.

1.3.3.2.4. Calibrate, repair, and maintain all meters and flow measuring and pump control devices according to respective manufacturer's specifications for each device. If meters cannot be calibrated, Contractor shall identify means and method to meet the requirement. Forward all calibration records to R&O and Operations Engineering and in the case of sanitary flow meters, also forward to 72 ABW/CEIE.

1.3.3.2.5. Respond to all sanitary and industrial waste system failures TAFB 19-3, *Industrial Wastewater Emergency Response and Control Plan*, and TAFB Plan 19-2, *Oil and Hazardous Substance Integrated Contingency Plan*.

1.3.3.2.6. Ensure Engineering Contractor is provided redline update of maps, as-builts, plans, and records indicating flushing of lines, accounting for leaks, and showing new service lines, locations of physical changes in the system due to repair, addition, upgrade or other changes affecting

original condition of system, and location of potential cross-connections for programmed elimination to meet the requirements of AFMAN 32-1067, *Water and Fuel Systems*.

1.3.3.2.7. Provide on-site emergency sampling of waste streams to the collection systems, and basic laboratory analytical services as necessary to support spill response procedures to meet the requirements of TAFB 19-2 and TAFB 19-3. Sampling and testing shall be accomplished by the Contractor as a means of immediate on-the-spot identification of suspected toxic or otherwise hazardous waste and for confirmation of the presence of such waste in the lift station or collection system. All sampling and laboratory analysis shall be accomplished to meet the requirements of 40 CFR 136, *Code of Federal Regulations*, and *Standard Methods and Supplemental Manual*, Sections 1 through 5. Maintain three years of laboratory records for all laboratory tests to include: date and time of sampling, type of sample, location of sample, tests performed, and test results. Make these records available to Government at all times for submittal to regulatory agencies as required by 40 CFR 136, Sections 1 through 5.

1.3.3.2.8. Respond to Notice Of Violation (NOV) of any lift station bypassing or extended downtime, or of any other type discharges in violation of regulatory requirements shall be prepared by the Contractor and submitted to the Government R&O within 24 hours of the Contractor's identification of the noncompliance. These notices shall include a description of the discharge, the cause of the noncompliance, the period of the noncompliance including exact dates and times, and if not corrected, the anticipated time the noncompliance is expected to continue, identifying steps taken to reduce, eliminate, and prevent the recurrence of the discharge. Direct submittals of the Contractor supplied response to NOV shall be provided to Government R&O and 72 ABW/CEIE.

1.3.3.2.9. The contractor shall clean and maintain trade waste distribution/transfer system to ensure adequate flow and waste removal from system to designated holding tank(s) per applicable PMTL(s). Performance of this requirement requires specialized PPE and equipment (HEPA vacuum) due to the presence of hazardous chemicals. All hazardous waste shall be disposed of IAW State and local laws.

1.3.3.2.10. Contractor shall inspect, operate, repair, and maintain Oil/Water Separator (OWS) systems, grease traps, and Underground Storage Tanks (UST). Contractor shall be required to cleanout grease traps and USTs. Contractor is responsible for OWS cleanout/pump out.

1.3.3.3. Petroleum, Oils, and Lubricants (POL) System (Liquid Fuels). The Contractor shall maintain, inspect, repair, overhaul, troubleshoot, test, and modify the POL systems in compliance with UFC 3-460-03, *O&M: Maintenance of Petroleum Systems*, UFC 3-460-1, *Petroleum Fuel Facilities*, AFI 23-201, *Fuels Management*, AFMAN 32-1067, *Water and Fuels Systems*, T.O. 37-1-1, *General Operation and Inspection of Installed Fuel Storage and Dispensing Systems*, Petroleum Equipment Institute (PEI) Recommended Practices (RP) 900 and 1200, Steel Tank Institute (STI) SP001, American Petroleum Institute (API) Standard 653, Title 40 CFR Part 280, *Resource Conservation and Recovery Act, Subtitle I (RCRA-I) – Underground Storage Tanks/Technical Standards*, Title 40 CFR Parts 112, and the *Spill Prevention Control and Countermeasures Plan (SPCC)* also known as the *Oil and Hazardous Substance Integrated Contingency Plan Emergency Response Action Plan Summary* for Tinker Air Force Base, Oklahoma (TAFB ICP Plan 19-2). Contractor shall comply with the applicable law, regulation,

UFC, PEI RP, STI, API standard and AFI as changes occur. The POL system includes liquid fuel storage, distribution and dispensing systems, ground product fuel and dispensing systems, above ground and underground tanks, piping associated with USTs and ASTs, tank vaults, automatic tank monitoring systems, tank containment sumps, tank spill buckets, tank sensor and alarms, tank overfill prevention, tank fill ports, Type II and III hydrant refueling and defueling systems, jet fuel missile test fueling systems, pumps, valves, AF portions of AAFES systems, and Compressed Natural Gas (CNG) systems.

1.3.3.3.1. Contractor shall use certified personnel licensed by state regulations to ensure repairs are in conformance with state regulations on all USTs and that contracted inspectors are able to certify the repairs. In addition, the Contractor shall:

1.3.3.3.1.1. Ensure operations and annual calibration are IAW applicable regulations for CNG fill station at Building 1090.

1.3.3.3.1.2. Meet and comply with the Oklahoma Corporation Commission Petroleum Storage Tank Program Permit requirements, Tinker AFB facility ID: 5508120. Contractor shall maintain a copy of the most current annual tank permit at the facility and make available to all tank maintenance personnel.

1.3.3.3.1.3. Mark all fuel lines, filter separators, and tanks to comply with North Atlantic Treaty Organization (NATO) and MIL-STD-161G in its entirety.

1.3.3.3.1.4. Perform tightness testing of USTs, including piping, and ensure completion of repairs to any UST or underground piping is accomplished within the state specified time IAW Title 40 CFR Part 280 and Title 165 Oklahoma Corporation Commission Chapter 25. Perform integrity testing of USTs, including piping when a major repair are accomplished on cathodic protection system before the tank system is returned to service IAW Title 40 CFR Part 280 and Title 165 Oklahoma Corporation Commission Chapter 25. USTs. Conduct annual pressurized line tightness tests, and leak detector functionality tests on USTs to meet the requirements of Title 165 Oklahoma Corporation Commission Chapter 25, Title 40 CFR Part 280, *Resource Conservation and Recovery Act, Subtitle I (RCRA-I) – Underground Storage Tanks/Technical Standards*, 40 CFR 280.34, 280.41, 280.43, 280.44, 280.45, and T.O. 37-1-1. Contractor shall also maintain records and conduct Five-year hydrostatic tests to ensure compliance with UFC 3-460-03, *O&M: Maintenance of Petroleum Systems* and federal/state/local regulations. Perform the Operation and Maintenance requirements IAW the Oklahoma Corporation Commission UST release detection testing and/or inspection requirements which include overfill prevention equipment, spill prevention equipment, containment sumps, leak detection equipment, and spill buckets. Document results of Operation and Maintenance testing/inspections on the applicable OCC forms. All results, inspection records of the fuel system and report of the line tightness test, leak detector functionality test, Operation and Maintenance testing/inspections, five-year Hydrostatic test, tank repair, tank upgrades, third party repairs, and tank tests available to Government at all times and upload in the Storage Tank Accounting and Reporting (STAR) database for each tank. All annual requirements shall be accomplished NLT 21 calendar days before the contract year (CY) ends, while the five-year requirements shall be accomplished NLT 90 calendar days before the 5 year term of CY ends. All records shall be updated within 5 workdays after respective test.

1.3.3.3.1.5. Maintain PM and inspection records for each item of equipment included within this contract. These records shall include detailed descriptions of periodic maintenance performed, the schedule and completion dates, and the name of the individual accomplishing the work. Keep the records current and maintain tank repair records for the life of the tank and equipment. Records shall be available to Government at all times.

1.3.3.3.1.6. Ensure a STI certified inspector performs formal internal and external inspections of ASTs according to the schedule identified in the Steel Tank Institute (STI) SP001 to meet the compliance requirements of the Environmental Protection Agency (EPA). Test and/or inspect ASTs for integrity on a regular schedule and whenever material repairs are made. Maintain STI inspection records for each tank, document/upload records in the Storage Tank Accounting and Reporting database, and make records available to the Government at all times.

1.3.3.3.1.7. Ensure an API Formal External and Internal Inspections of the ASTs are performed by an API certified inspector as required by American Petroleum Institute Standard 653 for bulk storage Tanks. Maintain API inspection records for each tank, document/upload records in the Storage Tank Accounting and Reporting database, and make records available to the Government at all times.

1.3.3.3.1.8. Inspect contractor-owned/contractor-operated POL storage tanks according to the *Spill Prevention Control and Countermeasures Plan (SPCC)* also known as the *Oil and Hazardous Substance Integrated Contingency Plan Emergency Response Action Plan Summary* for Tinker Air Force Base, Oklahoma, AFMAN 32-1067, *Water and Fuels Systems*, and federal/state/local environmental regulations. Maintain inspection records and make available to the Government at all times.

1.3.3.3.1.9. Maintain all cathodic protection systems dedicated to POL fuel system processes to meet the requirements of AFI 32-1001, *Civil Engineer Operations*, AFMAN 32-1067, *Water and Fuels Systems*, UFC 3-570-06, and federal, state, and local environmental regulations.

1.3.3.3.1.10. Prepare and submit an estimated Annual Work Requirement Plan for the Liquid Fuels Maintenance Shop work by facility number. Plan shall include estimated labor requirements and projected material costs. This plan will be reviewed and forwarded to Defense Logistics Agency-Energy (DLA-E) for reimbursement of CAP items to support shop work. The Contractor shall maintain and provide all supporting material purchase documentation for EOY reconciliation with DLA-E. This requirement is further defined in DLA Policy Number: DESC-P-12, *Defense Energy Support (DESC) Sustainment, Restoration and Modernization (SRM) Funding Policy for Fixed Petroleum Facilities* dated 3 May 2010. The initial annual plan is due to R&O within ninety calendar days after full contract performance and prior to 1 October each year thereafter. The Contractor shall keep the annual plan updated electronically and available for Government review.

1.3.3.4. Storm Water and Sewer System. The Contractor shall repair and maintain all storm water and sewer systems to meet the requirements of AFMAN 32-1067, *Water and Fuel Systems*; and TAFB 19-3, *Domestic and Industrial Wastewater Emergency Response and Control Plan*. Contractor shall take a proactive approach to finding dry weather discharges, likely due to cross-connections. Contractor shall remove, re-route or have the cross-connection programmed for

elimination. Inflow or infiltration concerns, which cannot be remedied, shall be brought to the attention of R&O. In addition, Contractor shall:

1.3.3.4.1. Inspect, operate, repair, and maintain OWS structures and associated UST's to meet the requirements of SFIM-AEC-EQ-CR-200010, *Multiservice Oil/Water Separator Guidance Document*. Contractor is responsible for OWS cleanout/pump out.

1.3.3.4.2. Inspect, operate, maintain, and repair all flood gates, outfalls, and watercourse flow diversion structures. Contractor shall operate, repair, and maintain all valves and devices intended to control drainage flow to or from the storm water sewer system in case of chemical spills in the storm drain system. Contractor shall be responsible for ensuring unobstructed flow throughout the base storm drainage system, including sluices, creeks, spillways, and airfield and facility storm drainage systems. Contractor shall remove any obstruction to flow within the storm drainage system and creeks to prevent backups and overflow. Contractor shall meet and comply with the requirements of the OPDES permits OK0000809. (Reference Appendix 4.4.2)

1.3.3.4.3. Inspect, operate, repair, test, and maintain each AFFF diversion control system in automatic operating condition to prevent spills of AFFF contaminants from entering the storm drainage system or creeks. Contractor shall repair and maintain all parts and components of the storm drainage system, impoundments and valves to ensure compliance with the requirements of NPDES permits OK0000809. Contractor shall be responsible for locating, flushing, and proper disposal of suspected contaminants from within the storm drainage piping, collection system, and creeks. (Reference Appendix 4.4.2)

1.3.3.5. Water Supply, Storage, and Distribution System. The Contractor shall operate, inspect, repair, and maintain swimming pools and fire water supply, storage and distribution systems to ensure safe, operational and reliable water distribution. Contractor shall meet inspection, testing, operating, repair, and maintenance standards stated in AFMAN 32-1067, *Water and Fuel Systems*, UFC 3-230-02, *Operations and Maintenance of Water Supply Systems*, UFC 3-230-01, *Water Supply, Water Distribution, and Transmission*, UFC 3-601-02 *Operation and Maintenance: Inspection, Testing, and Maintenance of Fire Protection Systems*, NFPA 24, and NFPA 25. In addition, the Contractor shall:

1.3.3.5.1. Operate, repair, inspect, maintain, and water test for required parameters base swimming pools during the months of May through September to ensure safe swimming conditions to meet the operational requirements stated of OAC 310:320: *Public Bathing Place Operations*. Contractor shall create a database to track and document all test results, which will be available to Government at all times.

1.3.3.5.2. Ensure base maps are redline updated to account for new as-built plans, show new and relocated services, valve and hydrant numbering. Updated maps shall be provided to Engineering Contractor. Contractor shall maintain daily operational log sheets, account for leaks and repairs, and map locations of past and potential problems concerning water quality and distribution. Contractor shall identify all isolation valves and label "Normally Open or Normally Closed." Also ensure these valves are on the base maps and exercised regularly in the PM program.

1.3.3.5.3. Keep water facilities and systems secured against unauthorized entry.

1.3.3.5.4. Inspect, test/check, repair, replace, adjust, clean, and recondition all fire support pumping equipment and fire storage tanks periodically to meet the requirement of AFMAN 32-1067, *Water and Fuel Systems*, UFC 3-601-02, NFPA 20, NFPA 24, NFPA 25, and NFPA 291. Contractor shall ensure standard operating procedures are established and posted in all fire water pumping facilities. Fire support system inspection requirements are time-dependent and Contractor shall ensure that inspections are performed within the respective timeframes mandated. Contractor shall submit inspection and testing format for government review and approval within 30 workdays after full contract performance. After Government approval Contractor shall update all the records for inspection and test electronically. Contractor shall keep all flow tests and inspection records for at least five years.

1.3.3.6. Natural Gas System. The Contractor shall maintain, inspect, repair, troubleshoot, and modify the natural gas system in compliance with AFMAN 32-1067, *Water and Fuel Systems*, *DOT- PHMSA Guidance Manual for Operators of Small Natural Gas Systems*, UFC 3-420-01, *Plumbing Systems, with Change 11*, UFC 3-430-09, *Exterior Mechanical Utility Distribution, with Change 1* and 49 CFR 192.605, *Procedural Manual for Operations, Maintenance, and Emergencies*. Contractor shall develop a Natural Gas Plan for master meter systems as mandated by DOT-PHMSA, within three months of full contract performance. Plan will be submitted to R&O for review and approval. Contractor shall ensure certified personnel perform work requirements for natural gas systems and appurtenances. Contractor shall not be responsible for repair or maintenance of third party gas lines that transit the base. Contractor shall maintain and update layout locating isolation valves and ensure the valves get PM annually. (Reference Appendix 4.3)

1.3.3.7. Plumbing. The Contractor shall inspect, repair, maintain, and provide safe, functional, and reliable plumbing systems to meet current International Plumbing Code (IPC) and TAFB Standard using licensed personnel meeting State of Oklahoma qualification for respective job tasks.

1.3.3.7.1. The Contractor shall identify, isolate, record, and correct cross-connections and other potential sources of distribution systems contamination. The Contractor shall provide a backflow cross-connection prevention program using certified personnel that meet the requirements of AFMAN 32-1067, *Water and Fuel Systems*, according to applicable Uniform Plumbing Code (UPC) regulations. Contractor shall perform cross-connection surveys, inventory updates, testing of devices, and document performance IAW AFMAN 32-1067. Documentation will be available electronically to Government at all times.

1.3.3.7.2. In the event of an emergency facility plumbing service outage, the Contractor shall directly contact the facility manager to inform facility personnel as to the cause, extent, and projected duration of the outage.

1.3.3.7.3. In the event that any plumbing outage causes loss of service to the entire facility for a period exceeding 24 hours, or directly affects the facility mission, the Contractor shall be responsible for providing, cleaning, removing temporary portable sanitary facilities equivalent to number of toilets impacted, and shall provide adequate supply of fresh potable water for facility occupants. Upon government request, contractor shall provide trailer mounted sanitary facilities for longer-term outages.

1.3.3.7.4. In the event of a fire or other such emergency, Contractor shall support fire and other emergency operation by opening and closing valves as necessary, boosting service pressure, or other such actions so as to affect a required water flow.

1.3.3.7.5. The Contractor shall provide, clean, and remove temporary portable sanitary facilities to support special events, emergencies, and field exercises. Government will provide funds to acquire through CAP.

1.3.3.8. Pest Management Services. The Contractor shall provide pest management services to inspect, identify, prevent, treat, control, or eliminate insects, organisms, rodents, and wild or domestic animals to prevent health problems and the destruction of RP, vegetation, and supplies. Contractor shall provide these services at TAFB, including all TAFB properties leased or owned. Contractor shall ensure personnel are performing pest management service operations in accordance with DoDI 4150.7, *DoD Pest Management Program*, Oklahoma State Pesticide Application Categories 3a, 5, 6, 7a, 7b, and 8, and AFMAN 32-1053, *Integrated Pest Management Program*. Contractor shall identify in writing an Installation Pest Management Administrator (IPMA) who will be responsible for the development and continual updating of TAFB's Installation Pest Management Plan (Reference Appendix 4.3) in coordination with the base Installation Pest Management Coordinator. Contractor shall ensure utilization of Integrated Pest Management (IPM) techniques in the overall pest control program, which shall meet the requirements of AFMAN 32-1053 and DoDI 4150.7 in their entirety. In addition, Contractor shall:

1.3.3.8.1. Contractor shall possess a current Oklahoma State contractor's business license and each employee shall possess the required pesticide applicator certification specific for the work being performed prior to start of work and qualified IAW DoD Manual 4150.7-M, *DoD Pest Management Training and Certification Program: The DoD Plan for the Federal Insecticide, Fungicide, and Rodenticide Act Pesticide Applicators*. Pesticide applicators must be qualified to apply restricted use pesticides.

1.3.3.8.2. Conduct pest management services to address pest concerns in base housing, guest housing and UH as requested. Contractor shall be responsible for herbicide application within enclosed mechanical areas under direct purview such as fenced electric yards, fenced HVAC units, etc. Contractor shall also control vegetation in base parking lots. The pavement engineer will identify/prioritize parking lots for herbicide treatments during the spring. All other areas requiring herbicide treatment will be the responsibility of the grounds maintenance contractor.

1.3.3.8.3. Provide non-chemical control in and around the base clinic, child care facilities, and dining facilities. If pests cannot be controlled by other than chemical product then permission to use chemicals must be obtained from Military Public Health (MPH). Only those chemicals permitted by MPH are allowed.

1.3.3.8.4. Provide mosquito control throughout the breeding season in order to keep the mosquito population below the critical levels as determined by MPH. Contractor shall coordinate all larvacide and spraying operations with Environmental Management.

1.3.3.8.5. Trap and remove wild and domestic animals using humane techniques. Contractor shall be responsible for trapping and removing feral dogs and cats. Pest relocation shall be in coordination with security forces, privatized housing, veterinary services, and the natural resources office. Contractor shall capture animals suspected of being rabid because of inappropriate or aggressive behavior. All above work shall be done on an emergency service call basis. Contractor shall trap or net domestic animals in a humane manner and shall attempt to trap animals in a humane manner. Contractor shall house and care for domestic animals overnight IAW Oklahoma City Municipal Code Section 8-96 (animals will only be kept until Oklahoma City Animal Shelter is open).

1.3.3.8.6. Transport all dead animals off the installation and dispose of them in cooperation with natural resources, security forces, veterinary, and public health personnel. Contractor shall ensure recovery and disposal shall not exceed one workday after notification of the presence of dead or dying animals. Contractor shall make every effort to eliminate odors from the presence of dead animals.

1.3.3.8.7. Remove poisonous snakes from the base. Nonpoisonous snakes shall be relocated to non-inhabited areas on the southwest corner of base more suitable to their existence. Acting as IPMA, Contractor shall be responsible to coordinate and ensure suitable area for relocation.

1.3.3.8.8. Act as the IPMA and be responsible for identifying, collecting, developing, and reporting all pesticide usage on base. Contractor shall review each agency's Pest Management Plan ensuring compliance with all regulatory requirements. Contractor shall have a copy of each agency's *Pest Management Plan* on file and shall ensure all agencies' requirements are properly incorporated into TAFB's *Pest Management Plan*. (Reference Appendix 4.3)

1.3.3.8.8.1. The contractor shall use the internet based reporting tool mandated by AFCEC/COSC to maintain a complete pest control record and update the record daily.

1.3.3.8.8.2. Submit a monthly report of pesticide usage for AFCEC as required by AFCEC, IAW AFMAN 32-1053 if the approved online reporting tool is not available, Contractor shall complete and submit DD Form 1532, *Pest Management Report* and DD Form 1532-1, *Pest Management Maintenance Record* to AFCEC.

1.3.3.8.8.3. Perform annual update and submission of TAFB's *Pest Management Plan* IAW AFMAN 32-1053 to AFCEC. Contractor shall ensure the Pest Management Plan follows the format guidance in DoDI 4150.07, Enclosure 5 or any alternate direction from HQ AFMC/A7OS. Contractor shall submit the updated plan for R&O review and approval.

1.3.3.8.9. Provide Agriculture (AG) cooperative inspections and removal and disposal of trash on in-coming overseas airplanes for AG clearance. Contractor shall provide these services on an on-call basis day or night. Contractor shall implement controls which are environmentally sound and impose a minimum impediment yet are effective at preventing pest dissemination. Contractor shall be responsible for disposal off base for all AG trash IAW all applicable regulations. Provide monthly report to Customs and Border Patrol agent.

1.3.3.8.10. Utilize best practices when applying pesticides and herbicides in efforts to assist TAFB in reducing chemical usage to support goals established by DoD and striving for reduction of usage as compared to the baseline established by the Air Force Pest Management Board.

1.3.3.8.11. Contractor shall recommend facilities to be inspected annually and prioritize received CMs according to applicable regulations and TAFB's *Pest Management Plan*. Government reserves the right to validate facilities to be inspected and prioritization for execution.

1.3.3.8.12. Furnish the COR with labels and SDSs for all contract pesticide materials 25 calendar days prior to the start of full contract performance. Contractor shall provide information for pesticides not on the TAFB's approved list to COR for approval prior to use.

1.3.3.8.13. Establish a record keeping and inspection log database, which is located on the Government server, accessible to Government at all times.

Fire Ant Compliance	Provide phone notification to NR Staff when Fire Ant activity is discovered. Prior to shipping onto the base, submit letter verifying products/equipment are coming from fire ant non-quarantine areas. If from quarantined areas, then submit Federal Compliance Certificate or Phyto-sanitary Certificate verifying equipment, supplies, and materials are compliant prior to shipping onto the base.
Texas Horned Lizards Notification	Provide phone notification to NR Staff when Texas horned lizards are encountered (405-739-7065 or 739-7074). NR Staff will then provide instructions and protection notices for posting on such construction sites. Send to SME and NR.

1.3.3.9. Heating, Ventilation, Air Conditioning/Refrigeration (HVAC/R). The Contractor shall repair, maintain, calibrate, and balance environmental control systems using certified personnel (journeyman limited/unlimited license in State of Oklahoma) to ensure safe, functional, efficient, and reliable systems. Contractor may hire personnel through apprenticeship program, but they may not exceed 5% of the workforce. Control technicians shall be qualified and familiar with "Honeywell", "ABS" and "Paragon Robotics" control systems and maintenance. In addition the Contractor shall:

1.3.3.9.1. Maintain a water treatment and corrosion control program to control scale, algae, slime, and corrosion on HVAC/R systems. This section shall be part of the chemical treatment plan identified in section 1.3.4.2 (Water Testing and Treatment) and 1.1.3, 1.1.3.8, 1.1.3.9, and 1.1.3.10 (Preventative Maintenance Program (PMP) Management). Contractor shall document water analysis, quantity of chemical used, and corrective actions. Contractor shall evaluate the monthly chemical reports and notify R&O of any chemical treatment issues and submit a corrective action plan within 30 days. Contractor shall develop a database, which shall be updated daily and monthly with respective water/chemical treatment analysis. Database shall be available electronically to the Government at all times. Chemical treatment parameters shall be with in

recommended ranges per UFC-3-240-13FN, industry standards and manufacturer's recommendations (most stringent shall apply).

1.3.3.9.2. Provide HVAC duct cleaning service within the CM level (three man years) of scope IAW UFGS 23 01 30.41 and NADCA ACR Handbook.

1.3.3.9.2.1. Provide maintenance, repair, inspection, and cleaning of kitchen hoods, kitchen hood exhausts, suppression systems (including Class K) and ducts in food preparation facilities to meet the requirements of NFPA 96, *Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations*. Contractor shall develop database and tracking system to ensure compliance with NFPA 96. Documents resulting from inspections shall be maintained on Government server and available to Government at all times. (Reference Appendix 4.3)

1.3.3.9.3. Manage the unfired pressure vessels program IAW AFMAN 32-1068, *Heating Systems and Unfired Pressure Vessels*, including the required three year ASME inspection(s). The requirements identified within this paragraph shall include any/all current NFPA and/or AFI revisions at time of contract award. Contractor shall inform R&O and CO of any updates, revisions or new requirements effective after contract start date which directly affects management of the program. Notification shall include required and/or recommended modification to program management and contractual implications. Contractor shall coordinate with the Government R&O to identify scheduling of vessels requiring three-year inspection certification (this effort needs to be coordinated with the facility assessment teams). Contractor shall update pressure vessel list (annually) and maintenance requirements for newly installed and/or demolished equipment.

1.3.3.9.4. Inspect and repair/replace insulation (pipe, duct, equipment) as needed or per CM request. Contractor shall have qualified ladders on maintenance staff to perform this task

1.3.3.9.5. Clean and maintain exhaust louvers for the chemical stripping operation in B3228 per applicable PMTL. Performance of these tasks requires specialized PPE and equipment (ex. HEPA Vacuum) due to the presence of heavy metal dust. All waste containing heavy metals shall be disposed of IAW State and local laws.

1.3.3.10. Utility Meters. The Contractor shall, maintain, repair and calibrate through replacement Tinker AFB facility utility meters. Each meter is identified with a unique meter identification number. Electric meters are designated with Exxxx with xxxx denoting the unique number for that meter. Natural gas meters are designated with Gxxxx. Water meters are designated with Wxxxx. The requirements in this section meet the instructions outlined in Chapter 5 of AFMAN 32-1061 dated 16-July-2019.

1.3.3.10.1. Applicable Meters. Meters that are applicable to this contract and the responsibility of the Contractor are the meters that give the total kWh of electricity, the total cubic feet for natural gas, and total of gallons of water per facility. List of applicable meters are included in the appendix. A facility may have more than one meter per utility to obtain the total amount of usage. For example, if a facility has more than one transformer, there may be a meter for each transformer. The CE Energy Office is using the data from these meters for utility billing. There

are meters that have been installed for measurement and verification (M&V) by ESPC or UESC contracts and these meters are not applicable to this contract.

1.3.3.10.2. Repair/replacement and Calibration of Meters. Contractor shall repair or replace meters that are not working or giving erroneous readings. Meters shall be calibrated or tested for accuracy as recommended by the manufacturer at time intervals no longer than 10 years or at intervals recommended by manufacturer, whichever is less

1.3.3.10.2.1. Natural gas meters shall be repaired or replaced as needed. Replacements shall be by an equivalent natural gas meter, but any manual only meter must be replaced with a meter that has the ability to produce a digital output signal to use to automatically collect meter data.

1.3.3.10.2.1.1. Meter Commissioning. Contractor shall provide documentation verifying proper meter installation and verifying proper operation/readings for all metering after meter repair or replacement. As an example: Tinker AFB has many ION 8650 electrical meters installed on base. These meters are most often installed near facility transformers or at facility switchgear. They commonly use Current Transformers (CTs) to connect the meter to the source. The installer must correctly size and install the CTs and ensure the meter is correctly displaying measured values. The contractor is expected to provide meter installation documentation validating the installation and ensuring the accuracy of the displayed meter readings.

1.3.3.10.2.1.2. Contractor shall notify Contracting officer and Utility Manager of all planned replacement meters that do not have an existing LAN connection.

1.3.3.10.2.2. Water meters shall be repaired or replaced as needed. Replacements shall be an equivalent water meter, but any manual only meter must be replaced with a meter that has the ability to produce a digital output signal to use to automatically collect meter data.

1.3.3.11. Visual Air Navigation System. The Contractor shall repair, inspect, test, and maintain the visual air navigation system IAW the FAA Advisory Circular (AC) 150/5340-26C, Maintenance of Airport Visual Aid Facilities, FAA Advisory Circular (AC) 150/5340-30G, Design and Installation Details for Airport Visual Aids, AFMAN 13-204 V2, *Airfield Operations Standardization and Evaluations*, AFMAN 13-204, V3, *Airfield Operations Procedures and Programs*, AFMAN 32-1040, *Civil Engineer Airfield Infrastructure Systems*, and UFC 3-535-01, *Visual Air Navigation Facilities, with Change 1* to ensure safe airfield operations and to eliminate unplanned interruptions of the air mission capability.

1.3.3.11.1. The Contractor shall provide a PM and inspection program that meets the standards and tolerances given in Appendix A of FAA Advisory Circular (AC) 150/5340-26C, *Maintenance of Airport Visual Aid Facilities*. Contractor shall also ensure that maintenance and repairs meet the requirements of the OEM technical literature. The contractor shall provide the monthly Visual Air Navigation Systems Inspection Report (Reference Appendix 4.3).

1.3.3.12. Vertical Transportation Equipment (VTE). The Contractor shall provide all management, tools, supplies, equipment, and labor necessary to maintain, repair, and inspect the RP VTE at TAFB in a manner that will ensure continuous and safe operation. The term “VTE” in this PWS includes all equipment listed in the appendix: freight and passenger elevators, wheelchair/stair lifts, dock levelers, and dumbwaiters.

1.3.3.12.1. Work conducted on VTE shall be IAW American Society of Mechanical Engineers (ASME) A17.1-2007 (or applicable code for year VTE put in service), *Safety Code for Elevators and Escalators*, ANSI/ASME A17.2-2010, *Guide for Inspection of Elevators, Escalators, and Moving Walks*, ANSI/ASME A17.3-2011, *Safety Code for Existing Elevators and Escalators*, National Fire Protection Association Standards (NFPA), Unified Facilities Criteria (UFC) 3-600-01, *Fire Protection Engineering for Facilities*, Occupational Safety and Health Administration (OSHA) Standards and the recommendations of the original equipment manufacturer.

1.3.3.12.2. The Contractor with the COR (or designated representative) shall determine the working order and condition of all VTE listed in the appendix within thirty calendar days of contract award. The Government will either replace missing items, repair all items not in working order or serviceable condition, or the CO will direct the Contractor to replace the missing items, accomplish the repair, and reimburse the Contractor IAW the contract. The Contractor and the CO shall certify their agreement as to the working order of the equipment. All repair work shall be IAW standard commercial practices using only new parts of equal quality specified by the VTE manufacturer in effecting repairs (substitution of a different component is only permitted where it is equivalent to that which was tested, as determined by the certifying agency).

1.3.3.12.3. The Contractor shall develop and submit to the Government an annual written MCP covering each VTE within thirty calendar days after contract award to cover the basic contract and any option periods. The MCP shall include required inspections, timelines for inspections and maintenance to be performed. The Contractor shall perform inspections and maintenance of all VTE IAW the MCP. Personnel doing maintenance on elevators shall have an Oklahoma elevator mechanics license. The MCP shall ensure compliance with all minimum code requirements.

1.3.3.12.4. The Contractor shall perform necessary inspections and tests as required under ASME A17.1 Appendix N, using a Qualified Elevator Inspector (QEI) licensed in the state of Oklahoma. The first annual test shall include the five-year test for all traction and roped hydraulic elevators regardless of due date. The three-year test shall be scheduled in conjunction with the annual test two years later from the first annual test. Contractor shall submit the inspection sheet format for the R&O/COR approval NLT 21 calendar days after the transition period start. All inspection and test results shall be kept electronically for at least five years.

1.3.3.12.5. The Government may perform inspections of the VTE at no cost to the Contractor for purposes of capital asset management and quality assurance. If discrepancies are discovered during these inspections, the Contractor will be notified in writing of any determination and may be responsible for the corrective actions.

1.3.3.12.6. The Contractor shall prepare and submit a written report for inspections performed within five workdays of inspection. The report shall identify each VTE, the location, maintenance work performed, repairs needed, date of inspection, name of inspector, and overall condition of the VTE.

1.3.3.12.7. The Contractor shall maintain a copy of all current VTE inspection documentation, along with an index indicating the location, date inspected, and date of the next required inspection having provided the original to the CO/COR. The index and copies of certificates shall be available to the CO/COR at all times.

1.3.3.13. Bridge Crane and Hoists. The Contractor shall provide all management, tools, supplies, equipment, parts, and labor necessary to maintain, repair, and inspect bridge cranes in a manner that will ensure continuous and safe operation, by certified personnel. Work done on bridge cranes hoists shall be IAW AFMAN 91-203, *Air Force Occupational Safety, Fire and Health Standards*, and 29 CFR 1910.179, *Overhead and Gantry Cranes*.

1.3.4. Plant Operations. The Contractor shall operate, maintain, and repair central plants and infrastructure systems and components to ensure plant production is available 24-hours-per-day, 7-days-per-week, unless directed by Government. Distribution or collection systems shall be considered up to the service connection point to respective equipment tie ins. Scheduled plant outages are only allowed during non-duty hours, primarily on weekends or Holidays. Contractor shall provide safe, energy efficient, and effective operation to meet demand requirements of the steam plants, cooling plants, compressed air, and wastewater plant. Contractor shall submit reports mandated by Federal and State regulations to 72 ABW/CEIE. Contractor shall be responsible for handling and storage of water treatment chemicals and wastewater treatment chemicals including hazardous materials incidental chill water plant, and wastewater treatment system operation to meet the requirements of TAFB Plan 19-2, *Oil and Hazardous Substance Integrated Contingency Plan Emergency Response Action Plan Summary* for Tinker Air Force Base, Oklahoma, and AFI 32-7086 with Tinker AFB Supplement, *Hazardous Materials Management*. The contractor shall monitor and inspect all priority equipment (Refer to Priority Infrastructure list in Appendix 4.7.10.) including but not limited to Fire Pumps, Chillers (exclude ESPC contracted equipment-see Appendix 4.7.10.) (every 4 hours), Air Compressors (exclude ESPC contracted equipment-see Appendix 4.7.10.) (every 4 hours), Cooling towers (exclude ESPC contracted equipment-see Appendix 4.7.10.), boilers (exclude ESPC contracted equipment-see Appendix 4.7.10.). As a minimum the contractor shall keep the logbook of all their inspections for this priority equipment in their Mechanical Rooms that contains Date and time of inspection, Inspected by (Name and Office Symbol), Initials, all required readings and Observations, and any CM/work request called during the inspection, maintenance performed under the CM #. Log book readings for chillers shall include but not limited to; chilled water temperature in and out, condensing water temperature in and out, oil pressure and chiller load capacity, Log book readings for air compressors shall include but not limited to; Capacity (cfm), system air pressure, bearing temperature, vibration readings where applicable, oil temperature and pressure, cooling water in and out, winding temps. (data can be collected via Tinker AFB Control Front End, however data must be collected at each piece of equipment if accurate/up-to-date Front End data is not available).

1.3.4.1. Operational Procedures. The Contractor shall maintain complete control of plant operation with trained and certified personnel in conjunction with ESPC contractor. Prior to commencement of full contract performance, Contractor shall submit proposed Operational Plans for each central plant to the CE R&O for review and approval. Contractor shall evaluate, adapt, and incorporate existing written procedures and instructions into respective Operational Plans. Contractor shall ensure system operations do not fall below the minimum requirements established in the instructions and shall comply with state and federal regulations, manufacturer recommendations, and state and local codes. Operational Plans shall include: procedures for all primary and ancillary systems, start-up and shut down procedures, inspection plans, testing schedules, adjustment frequencies, operating procedures, environmental compliance requirements, permit requirements, and procedures to be followed for updating and implementing revised

procedures, when required, for operation, maintenance, and repair. Once approved, the Plan is a living document and shall be updated annually or as changes occur. Contractor shall be responsible to dispose of all hazardous waste including used oils, sludge oil, oily rags, and absorbent to meet the requirements of TAFB Instruction 32-7004, *Hazardous Waste Management Instruction* in its entirety. ESPC are responsible for their own waste management plans and procedures.

1.3.4.2. Water Testing and Treatment. The Contractor shall operate, repair, and maintain a water treatment program and equipment affecting central plants and steam and chilled water distribution systems and other ancillary equipment outside of plants. Contractor shall submit a Water Treatment Program Plan IAW UFC 3-420-13FN prior to full contract performance for approval by the CO and R&O. Contractor shall maintain a program IAW UFC 3-420-13FN and include annual tests and documents corrosion rates using corrosion coupons throughout the central plant and steam and chilled water distribution systems. The results shall be available to R&O/QAEs electronically at all times. The Contractor shall document water analysis, quantity of chemical used, and corrective actions. Contractor shall evaluate the monthly chemical reports and notify R&O of any chemical treatment issues. Contractor shall update chemical documentation on a daily basis and have records available for Government review at all times. The contractor shall notify R&O and COR of any out of tolerance readings within 24 hours with its corrective/remedial action taken to correct the non-compliance.

1.3.4.3. Steam Production. The Contractor shall operate, inspect, test, maintain, repair, and record data for steam plants and ancillary equipment including supply and condensate return piping (excluding systems maintained by others). Contractor shall meet the requirements of AFMAN 32-1068, *Heating Systems and Unfired Pressure Vessels*, UFC 3-430-07, *O&M: Inspection and Certification of Boilers and Unfired Pressure Vessels, with Change 5*, UFC 3-430-02FA, *Central Steam Boiler Plants, with Change 1*, and UFC 3-430-08N, *Central Heating Plants*, in its entirety. Contractor shall operate the steam plants to meet thermal heating/cooling load requirements (pressure, temperature, and mass flow rate) to all connected facilities. In addition, the Contractor shall:

1.3.4.3.1. Procure a service contract, schedule, request, and prepare RP high-pressure boilers for semi-annual boiler inspection to meet requirements of AFMAN 32-1068. In preparation for boiler inspections, Contractor shall disassemble boilers for waterside, fireside cleaning, and hydrostatic testing. At completion of inspections, Contractor shall re-assemble and make ready for service, boiler and boiler components. Contractor shall provide attached boiler notification to 72 ABW/CEIE on the day the boiler starts continuously to process hot water. 72 ABW/CEIE only has 10 days after start up to submit notification to ODEQ and EPA.

1.3.4.3.2. Make all repairs, maintenance, alterations, and extensions to and from the plant to avoid cross-connections. Contractor shall ensure the prevention of contamination from back siphon or other infiltration to the potable distribution system.

1.3.4.3.3. Maintain and update daily and monthly operating logs and maintenance inspection records. Contractor shall use tables, charts, and formulas to correctly complete operating logs. Contractor shall review, calculate, and complete operational logs to ensure correct information is being captured. Logs shall be updated within the first week of each month.

1.3.4.3.4. Update by redline on as-built drawings all information necessary to ensure the actual plant layout, piping, or equipment properly conveys actual site conditions. Updates shall be made known to R&O and provided to Engineering Contractor.

1.3.4.3.5. Efficiently operate boilers to ensure minimum energy consumption without detrimental impact to mission. Boiler operators shall be licensed in the state of Oklahoma relevant to the high or low pressure system being managed.

1.3.4.3.6. Perform boiler tune-ups and calibrations IAW 40 CFR 63 Subpart DDDDD and AFMAN 32-1068, *Heating Systems and Unfired Pressure Vessels*. Tune-ups must be conducted annually for boilers with a rated heat capacity >10 MMBtu/hr, every two years if the rated heat capacity is >5 MMBtu/hr but less than 10 MMBtu/hr, or every five years if the rated heat capacity is <5 MMBtu/hr. Tune-up records are to be maintained on site by the Contractor for a period of not less than five years and available to Government at all times.

1.3.4.4. Chilled Water Production. The Contractor shall manage the plants to meet cooling load requirements (pressure, temperature, and mass flow rate) for occupant comfort and process equipment demands. Contractor shall operate, maintain and repair the chilled water plants and associated components including the supply and return distribution piping with trained personnel. Contractor shall efficiently operate chilled water systems to ensure minimum energy, chemical, and water consumption without detrimental impact to mission. Contractor shall ensure the safe and efficient operation, maintenance and repair of the chilled water plants 24-hours-per-day, 7-days-per-week, unless directed by Government or in times of inactivity. Contractor shall maintain daily and monthly operating logs and maintenance inspection records. Contractor shall use tables, charts, and formulas to correctly complete operating logs. Contractor shall update daily and monthly chiller operating logs electronically and shall make operational logs available for Government review at all times.

1.3.4.5. Compressed Air Loop. The Contractor shall operate, maintain, and repair the compressed air systems including distribution to provide safe, reliable, clean, and dry compressed air. Contractor shall ensure equipment are operated, repaired and overhauled to meet compressed air load and pressure requirements, maintain 100 PSIG shop air at customer using point and 100 PSIG for breathing air 24-hours-per-day, 7-days-per-week, unless directed by Government. Contractor shall efficiently operate compressed air systems, including cycling compressors on/off, to ensure minimum energy consumption without detrimental impact to mission.

1.3.4.5.1. Contractor shall manage the unfired pressure vessels program IAW AFMAN 32-1068, *Heating Systems and Unfired Pressure Vessels*. Contractor shall procure service contract, schedule inspections and maintain equipment lists to include identification and updating the list for newly installed and demolished equipment. Contractor shall coordinate with the Government R&O to coordinate scheduling of vessels that require three year inspection certification per AFMAN 32-1068. Contractor shall maintain and update daily operating logs and maintenance inspection records electronically. Contractor shall use tables, charts, and formulas to correctly complete operating logs. Contractor shall make operational logs available to Government at all times.

1.3.4.6. Industrial Wastewater Treatment Plant. The Contractor shall operate, maintain, inspect, test, and repair primary, secondary, and tertiary plant processes, equipment, sewer system and lift stations. Contractor shall maintain the industrial wastewater treatment plant, plant process components and sewer system in an operational condition at all times. The treatment plant shall operate 24-hours-per-day, 7-days-a-week, including weekends and holidays. Maintenance personnel shall be cross trained to perform plant operation duties to maximize the plant efficiency. During winter months, Contractor shall ensure that all operational and standby equipment, piping, plumbing fixtures, chemical storage tanks and contents, and indoor chemical storage areas and contents are protected from freeze damage. Contractor shall ensure all operations and maintenance meets the requirements of UFC 3-240-03 and all applicable equipment and process manufacturer specifications. Contractor shall ensure treatment facility buildings, grounds, and processes are maintained in a clean and orderly condition at all times. Contractor operations and maintenance shall be accomplished with proper regard to equipment and components to ensure plant process and equipment unit operating efficiency and longevity of service life. Contractor's facility operations, maintenance, solids handling operations, and effluent discharge practices shall comply with all applicable Air Force, federal, state, and local regulatory standards and agreements, including the *OPDES Permit OK0000809*, and Industrial Wastewater Discharge *Permit 0029-FC* and *Permit 0029-TAC* requirements. Contractor is responsible for preparation of operating reports and related records and correspondence. In addition the Contractor shall:

1.3.4.6.1. Operate, calibrate, maintain, and repair plant control and monitoring equipment with qualified personnel. Qualified personnel shall be minimum of Control Tech II with SCADA and PLC control experience.

1.3.4.6.2. Provide sampling and laboratory analytical services by qualified personnel to support industrial waste water operations, 72 ABW/CEIE, and regulatory agency operating requirements. Contractor shall keep a complete set of laboratory records for all laboratory tests to include: date and time of sampling, type of sample, name of sample, locations of sample test performed, and test results. Laboratory records shall be available at all times.

1.3.4.6.3. Operate the industrial waste treatment plant's analytical laboratory with qualified personnel to provide formal advanced chemical analysis in support of waste treatment plant operations. Contractor shall provide laboratory analytical services in support of daily and regular treatment operations, provide laboratory analytical services for purposes of emergency sampling, grab sampling, and sampling in support of any treatment study or batch treatment. Contractor shall provide capability and a means for performance of laboratory tests including operating, repairing, and maintaining all laboratory analytical systems, equipment, and fixtures. Contractor shall submit monthly chemical analysis and usage for treatment plant by the first week of each month to the COR or CO's designated representative.

1.3.4.6.4. Repair and alter waste treatment plant process piping and tanks in such a manner as to prevent cross connections, using certified personnel. Contractor shall prevent contamination of the base water supply resources due to back-siphon, infiltration, and flooding in compliance with AFMAN 32-1067, *Water and Fuel Systems*.

1.3.4.6.5. Perform daily inspections of each industrial waste lift station to determine and correct any discrepancies to ensure continuous operation of the system.

1.3.4.6.6. React and respond to any changes in the waste stream indicating incursion of waste material including raw plating waste containing chromium or cyanide, aircraft hangar AFFF foam, or any substance which may cause detrimental effect on the waste treatment facility. Mitigate and report incursions of such toxic or hazardous waste from facility collection systems to prevent from exceeding the minimum pretreatment discharge standards that meet the requirements of TAFB 19-2 and TAFB 19-3.

1.3.4.6.7. Respond to Notice Of Violation (NOV) of the pretreatment parameter limits, notice of any lift station bypassing or extended downtime, or of any other type discharges in violation of regulatory requirements shall be prepared by the Contractor and submitted to the Government R&O within 24 hours of the Contractor's identification of the noncompliance. These notices shall include a description of the discharge, the cause of the noncompliance, the period of the noncompliance including exact dates and times, and if not corrected, the anticipated time the noncompliance is expected to continue, identifying steps taken to reduce, eliminate, and prevent the recurrence of the discharge. Direct submittals of the Contractor supplied response to NOV shall be the responsibility of the Government R&O and 72 ABW/CEIE.

1.3.4.6.8. Be held liable for all fines and additional fees imposed by environmental regulatory agencies including the U.S. Environmental Protection Agency, Oklahoma Dept. of Environmental Quality, Oklahoma City/County Health Department, and City of Oklahoma City Water and Wastewater Utilities Department due to noncompliance with discharge permit standards and limits with respect to National Pollution Discharge Elimination System and Oklahoma City Industrial Wastewater Discharge permit. Contractor shall be responsible for fines imposed for the Contractor's non-compliance with testing and investigative requirements not properly performed and for costs attributable to necessary corrective actions.

1.3.4.6.9. Not communicate as a representative of TAFB with any federal, state, or local environmental regulatory agencies. Contractor shall provide necessary information, applications, or documentation to 72 ABW/CEIE and the base Bioenvironmental office for submittal to such agencies. Contractor shall provide written correspondence to 72 ABW/CEIE in order for the office to effectively provide official information to regulatory agencies concerning spills, outages, permit violations, or any other regulatory matter.

1.3.4.6.10. Address any equipment malfunction which has the potential to cause process downtime, loss of treatment system capability, or violation of discharge permit limits as an emergency situation. Contractor shall provide emergency maintenance response 24-hours-per-day, 7-days-a-week for all treatment plant equipment failure which might lead to main process downtime or discharge permit outage. Any process outage exceeding eight hours, including scheduled maintenance outages, shall be reported to 72 ABW/CEIE and meet the requirements of TAFB Plan 19-3, *Industrial Wastewater Emergency Response and Control Plan* in its entirety. All failures and malfunctions not addressed as an emergency shall be considered as Priority 3A.

1.3.4.6.11. Ensure all maps, as-built plans, drawings, and records showing plant process and piping alterations, extensions, new or relocated underground piping, and changes in plant equipment, processes, facilities, or layout meet current operational configurations.

1.3.4.6.12. Properly manage wastewater treatment chemicals, including hazardous materials to meet the requirements of TAFB Plan 19-2, *Oil and Hazardous Substance Integrated Contingency Plan*, and AFI 32-7086 with Tinker AFB Supplement, *Hazardous Materials Management*. Emergency response and corrective action procedures for leaks are part of the response requirements. All reports, operational logs, and chemical tracking documents will be posted on shared Government server and made available to Government at all times.

1.3.5. Predictability Based Maintenance (PdM) Program. The Contractor shall develop a PdM Program Plan for CSAG operations and submit a draft to Government prior to full contract performance, and final version (See Appendix 4.3). The plan shall identify the organizational structure (with personnel certifications), implementation, communication, risks, and execution methodology of a specialized Analyst Team (AT) and Work Request Team (WRT) for the dedicated purpose of managing and executing Predictability Based Maintenance (PdM) for CSAG RPIE. The AT and WRT shall be independent and dedicated to the PdM program for CSAG. The AT and WRT shall be collocated with the CSAG non-RPIE RCM team. The teams shall be comprised of qualified and certified personnel who will manage and perform maintenance work as described below. Contractor shall maintain a file showing certifications and qualifications for all personnel as directed by this PWS, which will be accessible to Government at all times. Contractor shall maintain a historical maintenance record, accessible to Government at all times, for all RPIE being serviced and provide an annual report disclosing the cost-benefit rationale for continuation of the program. The Contractor shall submit a list of recommended equipment repair projects and maintenance projections monthly. The Government will provide a system to manage and track PdM requirements.

1.3.5.1. The AT shall be led by an American Society for Quality (ASQ) Certified Reliability Engineer (CRE), as witnessed by possession of certification. In addition to AT oversight, this person shall direct the actions of the RPIE team and chair the WRT meetings. This person shall interface directly with the Organizational Designated Representative (ODR) identified by CO.

1.3.5.2. The concept of operation includes analytical capability. Contractor shall establish an AT to spearhead the requirement. The AT shall be a group of Reliability Centered Maintenance (RCM) analysts that will develop and implement an Asset Maintenance Plan for those items determined to be critical to the respective organization. The Asset Maintenance Plan shall be included in the PdM Program Plan and identify all critical assets. The Asset Maintenance Plan shall be considered an active program and updated as necessary.

1.3.5.2.1. The AT shall use the PMP RPIE inventory as a baseline. When new equipment is identified or installed at serviced facilities, Contractor shall notify R&O and ensure baseline RPIE inventory have been properly adjusted. The AT shall develop a recommended criticality rating for each piece of equipment on the inventory. The AT shall conduct recurring meetings with ODR personnel to develop and maintain the priority/high-impact equipment list identified for maintenance efforts/activities. Contractor shall be responsible for meeting minutes with ODR and

shall store all relevant equipment and program information on a Government server available to Government at all times.

1.3.5.2.2. The AT shall monitor equipment repair, replacement, and new installation. On an annual basis, the priority/high-impact equipment list shall be resubmitted to R&O and ODR for reconsideration.

1.3.5.2.3. The AT shall receive equipment condition input from field inspections of equipment inventory, technician reports, and computer based condition monitoring. When equipment problems are identified from field inspections, the AT shall notify R&O and ODR with a projected life expectancy and failure date.

1.3.5.2.4. Based on condition input received, the AT shall recommend work requests that scope the specific maintenance required. When work requests cannot be executed by internal WRT technicians, the AT shall refine the scope and coordinate with appropriate ODR for execution method. The work requirements shall be consistent with current work request categories: Emergency, 3A, 3B, 3C, 4A and 4B.

1.3.5.2.5. The AT shall include, at a minimum, one mechanical analyst and one electrical analyst both of whom shall be certified as a Society for Maintenance and Reliability Professionals (SMRP) Certified Maintenance Reliability Professional (CMRP).

1.3.5.2.6. The CRE shall develop a report to be submitted quarterly or more frequently, if requested by the CO identifying Key Performance Indicators (KPI), Leading and Lagging indicators, Reliability, Availability, Maintainability, and Overall Equipment Effectiveness IAW the Society of Maintenance Reliability Professional's (SMRP) metrics and business measures. The minimum metrics expected are:

- a) Scheduled Maintenance Work Requests vs. Unscheduled Maintenance Work Requests for priority RPIE and non-priority RPIE
- b) Mean Time between Failure (MTBF) and Mean Time to Repair (MTTR)

1.3.5.2.7. The AT shall develop a plan for review and approval by R&O with OPR concurrence, which employs a maintenance strategy that utilizes reliability based maintenance philosophy and strategies to deploy where necessary. Those strategies shall include but not be limited to RCM, Condition Based Maintenance (CBM), Machine Condition Monitoring (MCM), PM covering regulatory and manufacturer's requirements, and preventative and predictive maintenance practices that design, restore, and implement asset functional capabilities and maintenance cost efficiencies. Contractor shall notify R&O of any redundant work required in the PMP which overlap the PdM Program.

1.3.5.2.8. The CRE with assistance from the AT shall plan, gather, and review information pertaining to the condition of Air Force RPIE assets to effectively predict possible failure modes and conditions and promote an effective planning/scheduling program in order to prevent failure of priority/high impact equipment and unscheduled outages.

1.3.5.2.9. The AT shall keep logs of reduced energy usage/cost avoidance and/or monetary savings, which are continuously updated on Government server and available to Government at all times.

1.3.5.3. The WRT shall be a group of skilled trade technicians who shall perform the manual condition assessments and execute the Preventive, Testing and Inspection (PT&I) work requests issued/scheduled by the AT.

1.3.5.3.1. Each WRT member shall be a skilled trade technician with a minimum of two years' experience in condition assessment and advanced maintenance methodologies, as documented by resume and references.

1.3.5.3.1.1. The WRT shall include at least one journeyman pipefitter skilled and proficient in the usage of electronic leak detection methodologies such as ultrasonic listening devices. This position's duties shall include inspection and assessment of piping systems, reporting those conditions to the AT, and performing the pipe repair work requests issued by the AT. This technician shall investigate and identify facility gas leaks including compressed air, natural gas, breathing air, steam, and other similar facility utilities; correct facility/RPIE gas utility piping leaks found by the PdM Lab; repair water and steam pipe leaks or other identified problems found by the PdM Lab; and install sampling ports for air desiccant breathers.

1.3.5.3.1.2. The WRT shall include at least one experienced machine mechanic skilled and proficient in the usage of vibration analysis equipment, machine temperature measurement equipment, laser alignment equipment, and machinery seismic measurement equipment. This position's duties shall include inspection and assessment of rotating equipment, reporting those conditions to the AT, and performing the lubrication, balancing and alignment work requests issued by the AT. This technician shall gather data (such as vibration routes), perform belt alignment checks, assist in installation of remote data stations for on-line vibration analysis, perform laser alignment of rotating equipment such as fan blowers and gearboxes, verify level and align existing and new RPIE, correct mechanical RPIE problems identified by the PdM lab, conduct oil sampling (Note: for CSAG organizations utilize 76 MXSS oil lab for testing and analyses. Oil lab equipment and lab resources can be shared to reduce overhead costs), assist in laser alignment of RPIE, and research manufacturers' recommendations for equipment via validation of manufacturer maintenance manuals.

1.3.5.3.1.3. The WRT shall include at least two journeyman electrician skilled and proficient in the usage of thermography equipment, motor circuit analysis equipment, and electrical measurement logging equipment (electronic chart recorder). This position's duties shall include inspection and assessment of electrical gear, breaker panels, transformers, motor control centers, motors, and other similar electrical equipment, reporting those conditions to the AT, and performing the electrical repair work requests issued by the AT. This technician shall utilize thermography imaging to investigate and identify facility and RPIE electrical hot spots, identify electrical distribution problems, utilize both off-line and on-line motor analysis systems to test and provide reports on motors, correct electrical machine problems identified by the PdM lab, and support motor repair shop.

1.3.5.3.1.3.1. Contractor shall establish a motor management program using *Motor Master Software* or comparable database and IAW industry standards. Contractor shall set the base line for new motors 50hp and above. For existing motors, a base line shall be established per manufacturing data and installation date. Contractor shall utilize ultrasonic, motor current signature analysis, vibration analysis, and thermography technology to establish and execute the program. The Contractor shall develop a Motor Management Program Plan and submit as part of the PdM Program Plan. The plan shall be a living document and updated as required. The plan shall be stored on Government server and made available for Government review at all times. Government shall also be provided the capability to add and manage other base equipment to the inventory, which are not inherent to the PdM program.

1.3.5.4. The WRT shall include at least one Direct Digital Control (DDC) control technician certified in the installation of condition measurement field devices, system controllers, network communication devices, and the programming of software for the purpose of web browser interface dashboard monitoring. This position's duties shall include inspection and assessment of control components, repair/replacement of condition monitoring components, system programming, trend building, graphic building, and other similar duties required to stand up a Computer Based Condition Monitoring System (CBCMS) and maintain it in good working order.

1.3.5.5. The WRT shall include at least two journeyman HVAC technicians skilled and certified in the repair of HVAC equipment and in the usage of moisture, temperature, pressure, and flow measurement equipment for air and fluids. This position's duties shall include inspection and assessment of HVAC systems, reporting those conditions to the AT, and performing the electrical repair work requests issued by the AT. These technicians shall scan utility systems such as water and steam piping system for leaks or other problems such as water logged steam traps, lubricate, grease, oil, and perform filter changes, and labeling of all lubrication points.

1.3.5.6. The WRT shall include at least three RCM technicians skilled in the usage of thermography, vibration, electrical, temperature, and other types of advanced condition measurement equipment. The duties of these positions shall include field condition measurements for assets where CBCMS is not in use, for root cause analysis and for other condition measurement taskings as assigned by the AT.

1.3.5.7. The WRT shall include at least one operations document clerk. The duties of this person shall include preparing paperwork, reports, and other administrative duties for the team.

1.3.6. Building Automation System (BAS) Management. Contractor shall provide dedicated full time personnel to oversee and operate the BAS 24-hours-per-day, 7-days-a-week. Contractor shall develop and submit a BAS Management Plan to R&O within 60 days of the signed contract for review and approval (See Appendix 4.3). Plan shall be updated annually and stored on Government server accessible to Government at all times. Plan shall be a multifaceted approach incorporating BAS functional capabilities, such as: utilizing the ability to change set points, developing preventive maintenance algorithms, programing large system shutdowns and startups, developing setback strategies for HVAC systems based on user schedules, generating equipment repair notifications, submitting service calls for equipment repairs on malfunctioning controls on existing controls systems such as Automated Building System, Inc. (ABS), Paragon Robotics, and Honeywell BAS. Contractor shall monitor and respond to calls for priority facilities for equipment

failure, comfort issues, temperature humidity pressure deviations within the facility, alarms, etc. Contractor shall respond to scheduled and unscheduled outages to make sure the all systems are back up and running. The majority of Honeywell BAS was installed as part of an Energy Savings Performance Contract (ESPC). The Honeywell BAS is used to track and verify contractually required ESPC savings. Any modifications to the Honeywell BAS shall be coordinated with the Base Energy Manager and Honeywell prior to making any changes. Contractor shall maintain/repair field controllers including, not limited to, network controllers (Tridium based), device controllers, sensors and actuators, etc. Contractor shall attend government provided training for approved base personnel designated to access the BAS.

1.3.6.1. Support for the CE COINE. Work closely with CE's Information Assurance Manager (IAM) and CE ICS Comm/IT Group. If any Comm/IT-related problems arise during operations, Contractor shall notify and coordinate with CE ICS and/or CE ICS Comm/IT Group as necessary to solve the problems.

1.3.7. Retro-Commissioning (Retro-Cx) Program. The Contractor shall develop and execute a Retro-Cx program to include system analysis, identification of Retro-Cx measures, and implementation thereof for existing facilities. Retro-Cx activities shall be managed and conducted by the Contractor, and overseen by Government. Contract shall ensure that qualified personnel and equipment are available to execute a viable Retro-Cx program as listed in Section 1.3.7.3. Contractor shall submit a Retro-Cx Program Plan to Government for review and approval, and update the plan annually. In the beginning of each contract year, Contractor shall submit the yearly plan that includes schedules for execution of Retro-Cx program, as stated in Section 1.3.7.2. Contractor shall thereafter submit monthly progress status log and quarterly implementation reports, as stated in Section 1.3.7.5.

1.3.7.1. Definition and Scope. The Retro-Commissioning (Retro-Cx) is a process that improves operations and maintenance (O&M) in existing buildings in a way that buildings equipment and systems optimally function together to enhance overall building performance. The Retro-Cx program will focus primarily on improvement for building indoor climate and HVAC system operation, optimal control of systems and their components, identification of energy savings opportunities, and corrective actions in HVAC systems. Contractor shall analyze design, control and operations of building mechanical systems; provide root-cause analysis; identify Retro-Cx measures including improvement for thermal comfort, solutions to humidity and building pressure issues, operations and maintenance issues, and energy savings opportunities; and implement the Retro-Cx measures.

1.3.7.2. Planning and Requirement. Contractor shall perform Retro-Cx annually on facilities totaling approximately two (2) million square feet per year (+/- 5%). Contractor shall provide a list of facilities based on selection criteria and then discuss with Government for approval annually. Contractor shall prioritize facilities with building automation systems linked to the COINE. At a minimum, the Retro-Cx Program Plan includes a list of facilities, associated types of HVAC and building automation systems and controllers, and schedules for assessment and corrective actions.

1.3.7.3. Personnel and Supporting Materials. Contractor shall provide the following personnel and equipment for the Retro-Cx activities.

1.3.7.3.1. Personnel. Contractor shall provide a team of qualified professionals that consist of two control technicians, one certified maintenance and reliability professional (CMRP), and two commissioning (Cx) professionals, each of whom has at least 5 years of experiences in commercial buildings. The Cx professionals can be substituted with an HVAC technician or National Environmental Balancing Bureau (NEBB) certified TAB (testing, adjusting and balancing) technician who has at least 5 years of experiences in commercial buildings.

1.3.7.3.2. Meters and Tools. Meters and tools are necessary for the Retro-Cx Process (Section 1.3.7.4). At a minimum, Contractor shall be equipped with following meters: a temperature/humidity meter, an IR thermometer, a heavy-duty thermocouple thermometer, a hot-wire anemometer with pressure measurement function, an IAQ meter, a thermal image meter, a hand-held RTD thermometer for water temperature measurement, a combustion analyzer, and a tachometer for fan speed measurement. Contractor also must use a minimum of four (4) sets of HOBO data loggers and accessories of following: temperature and relative humidity (UX100-003), 4-channel analog (UX120-006M), 6' temperature sensors (TMC6-HD), and 20' temperature sensors (TMC20-HD). Contractor may purchase and carry a bag(s) of hand tools for convenience during the Retro-Cx activities.

1.3.7.3.3. References. Contractor shall refer to following standards, handbooks and guidebooks to perform the Retro-Cx Process: Procedural Standards for Retro-Commissioning for Existing Buildings (2009) by NEBB, Retro-Commissioning Process Manual (2014) by U.S. Department of Veterans Affairs, or Retro-commissioning Handbook for Facility Manager (2001) by PECL. Contractor shall further refer to the following guidebooks: California Commissioning Guide: Existing Buildings (2006) by California Commissioning Collaborative, O&M Best Practices Guide, Release 3.0 by EERE (DOE), Commissioning for Federal Facilities (2006) by FEMP, Guidance for Retro- Commissioning by EFCOG, or Energy Star Building Manual (2007) by EPA. The technical processes can be referred to Continuous Commissioning Guidebook for Federal Energy Managers (2002) by FEMP.

1.3.7.4. Phases of Retro-Cx Process. Contractor shall perform the Retro-Cx process in two phases: 1) assessment of facility HVAC systems, equipment, and control and 2) such corrective actions as instant adjustment, reports to maintenance, and recommendations for projects.

1.3.7.4.1. Assessment. Contractor shall assess building mechanical systems with preparation, site visit, and analyses. Contractor will prepare the site visit by reviewing design drawings and specifications, mechanical schedules, TAB and maintenance logs, and compare to current conditions and operations for any discrepancy. During the site visit, Contractor shall interview facility occupants; inspect pipe insulation and building envelope; investigate current O&M conditions and control sequences; and identify O&M enhancement, optimal control settings and sequences of operation, and energy efficiency improvement opportunities.

1.3.7.4.2. Corrective Actions. Contractor shall conduct corrective actions categorized in three following procedures: instant adjustment, report to maintenance, and recommendations for projects.

1.3.7.4.2.1. Instant Adjustment. Contractor shall identify and implement Retro-Cx measures related to non-capital repair and soft fix such as sensor calibration, TAB correction, damper and

valve adjustment, optimal temperature and pressure settings and reset, control tuning, and optimal control sequencing/re-programming. Changes shall be notified in writing to BAS shop and thereafter documented in a form, that includes, but not limited to, change number, date and time, name(s) who made changes, changes made in control points, setting and sequences of operation (SOO). The document(s) shall be stored in an online facility folder designated by the government.

1.3.7.4.2.2. Report to Maintenance and Repair (M&R). Contractor shall identify minor hardware repair or replacement and report to maintenance and repair (M&R) crews for repair or replacement (CM). The equipment for minor repair and replacement include, but not limited to, valves, dampers, actuators, piping, duct work, coils, variable frequency drives, electrical wiring, motors, and building envelope.

1.3.7.4.2.3. Recommendations for Projects. For larger scale repairs or improvements which cannot be implemented by instant adjustment or minor hardware repair or replacement, Contractor shall submit a Service Request for a project or projects to be programmed for additional funding.

1.3.7.5. Documentation, Reporting, Compliance and Obligation. The Retro-Cx program shall result in improvements in equipment and system reliability, occupant comfort, energy efficiency, and indoor air quality. Contractor shall document and update all changes made through the Retro-Cx process and make a database. The documentation will consist of, but not limited to, drawings, tables, presentations, and spreadsheets. Contractor shall submit the progress status log at the end of every month that includes, but is not limited to, facility numbers, initiation dates, actions taken, and completion dates. At the end of each quarter, Contractor shall submit a quarterly Retro-Cx report that includes, but is not limited to, all the information in the monthly progress status log in addition to the conditions of systems and control prior to the actions taken as well as new system design and configurations and control sequences after the actions taken. Government has an option of eliminating the Retro-Cx program if the outcome deems a shortfall of expected performance including, but not limited to, reckless performance related to improvement in equipment and system reliability, occupant comfort, energy efficiency, and indoor air quality, or professional manners in work performance. Communicate with BAS Shop and place a copy of the report in online facility folder designated by the government.

1.3.8. Asbestos and Lead Based Paint. The Contractor shall notify the CO or designated representative from 72 ABW/CEIE within 24 hours if contractor personnel encounter or suspect Asbestos Containing Material (ACM) or Lead Based Paint (LBP) could be disturbed during required work. The Contractor shall abate ACM and LBP on maintenance and repair CM and work requests. Asbestos work shall comply with the requirements for demolition and construction work referenced in the TAFB's Facility Standard, Specification, Section 007200 and all State of Oklahoma and Federal standards for the abatement of ACM and LBP. Contractor shall abate exposed and/or damaged ACM or LBP when encountered in any situation posing a health hazard, safety hazard, or other potential threat to base personnel. Contractor will notify R&O when any applicable AFI, TAFB Instruction/Plan or supplement has changed. Notification will include procedural and contractual impacts resulting from changes.

1.3.8.1. The Contractor shall maintain with qualified personnel the Government supplied asbestos roll-off and roll-off storage facility. Contractor shall prepare the roll-off by lining the bottom and sides with 2 layers of 6-mil plastic sheeting. All ACM removed during Operations and

Maintenance work shall be double-bagged, labeled, and stored in this roll-off. TAFB equipment and equipment parts and materials containing ACM may also be disposed of in the roll-off. Contractor shall prepare the roll-off for transportation meeting all DOT regulations for transport of hazardous waste. Transport preparation will include properly covering the waste, labeling, and placarding the roll-off. When the roll-off is made ready for pickup and transportation, Contractor shall arrange for pickup with the Integrated Solid Waste Management contract COR (72 ABW/CEY) and 72 ABW/CEIE. Hauling will be done by Government contracted licensed asbestos waste transporter. There are approximately two roll-off exchanges per year.

1.3.8.2. Asbestos Release Response. The Contractor shall "Emergency" respond to and mitigate all reported ACM/Presumed Asbestos Containing Material (PACM) releases received by the 24-hour CE Service Desk within four hours of receipt of notification. Contractor shall assume the reported release **does** contain asbestos and may be an immediate threat to the health and safety of base personnel. After normal work hours and on weekends, Contractor shall assess the extent of the release and create an asbestos regulated area using regulation asbestos barrier tape. The area will remain a regulated area until it is determined the release is a non- asbestos material or until abatement of the ACM/PACM is completed, and clearance air sampling analysis meets Permissible Exposure Levels (PEL). The Contractor shall abate the release by High-Efficiency Particulate Air (HEPA) Vacuum and wet wiping horizontal surfaces, and address damaged ACM/PACM areas by repair, removal, or encapsulation. The release of friable asbestos-containing materials, into occupied or potentially occupied areas, shall warrant emergency response by an Oklahoma State licensed asbestos abatement "Competent Person" and worker(s). After mitigation, Contractor shall assess the criticality of the situation and execute cleanup of the affected area for a release of ACM/PACM as outlined below:

- Emergency: within 8 hours
- Priority 3A/B: within 72 hours
- Priority 3C: within 7 days

1.3.9. Barcode Program. Contractor shall maintain current existing barcoding system and update labeling as equipment is installed and/or removed. Contractor shall ensure the program fully integrates CMMS equipment and tracking information. Contractor shall submit plan to R&O for review and approval (See Appendix 4.3). Contractor shall ensure all RPIE equipment on PMP inventory have a UID. At a minimum, at site bar code reader shall be capable of identifying: equipment UID, description, location, executed and scheduled PM, CMs performed and scheduled. Contractor shall have a barcode reader available for Government use on request.

1.3.10. Unaccompanied Housing (UH) Appliance, Change of Occupancy Maintenance, and Furnishings Management. The Contractor shall administer to Air Force appliances, furnishings, and change of occupancy as defined below. (Reference Appendix 4.6)

1.3.10.1. Appliance Maintenance. Contractor shall maintain Government-furnished appliances in UH and provide minor maintenance, and maintain sufficient backup stock to meet the requirements of AFI 32-6000, *Housing Management*.

1.3.10.2. Furnishings Management. Contractor shall function as the Furnishing Management Officer (FMO) for all furniture transactions (purchased with appropriated funds) involving the

UH, 72 ABW/CEF sleeping and entertainment quarters, and General Officer Home entertainment areas to meet the requirements of AFI 32-6000, *Housing Management*, with Tinker AFB Supplement, *Family Housing Management*. Contractor shall be responsible for moving furniture between designated buildings.

1.3.10.3. Change of Occupancy Maintenance (COM). Contractor shall provide COM for vacated UH resident rooms. COM is defined as preparation, spot or total painting of walls and ceilings, and shampoo, steam cleaning, or replacement of carpet. The COM requirements for each resident room will be determined by the UH Office personnel, during the occupant out-processing room inspection. The UH facility manager/dorm manager will initiate the COM request. The COM shall be considered as Priority 3A work.

1.3.11. Civil Engineer Emergency and Force Protection Response. The Contractor shall respond to and support approximately twelve annual emergency and force protection exercise scenarios in accordance with TAFB Installation Emergency Management Plan 10-2 and TAFB Civil Engineer Contingency Response Plan (CECRP) 10-211 and applicable regulations or plans cited. Contractor shall ensure that information regarding Contractor obligations for TAFB 10-211 are in accordance with and supportable by contractual requirements. If inconsistencies are identified between contract PWS and various support scenarios, these will be brought to the attention of CO in written format with explanation and recommendations.

1.3.11.1. The Contractor shall participate in, coordinate, and provide equipment and operational information for contingency, disaster, and deployment both real world and exercises. The Engineering Contractor will provide engineering support. Contractor shall provide technical assistance representing all trades during emergency management exercises, actual contingencies, and natural disasters including evaluation of hypothetical or actual damage due to hostile threat, major accidents, or natural disasters. Contractor shall provide Service Request, CM, Title, written cost estimates for in-house scope work, and execution plans within 24 hours for restoration of facilities and utilities. In addition, Contractor shall:

1.3.11.1.1. Emergency Spill Response, 24/7. Assemble and ensure a trained Oil and Hazardous Substance Spill Response Team to meet requirements of 40 CFR 112 and the TAFB Plan 19-2, *Oil and Hazardous Substance Integrated Contingency Plan Emergency Response Action Plan* for Tinker Air Force Base, Oklahoma. Contractor shall be responsible for securing the area as well as containing, collecting spill samples, cleaning, removing the release, and properly disposing of the release IAW with applicable waste regulations. Ensure a sample of the spill product is characterized through laboratory analysis IAW federal, state and local environmental regulations. For Class III spills, response will be a joint effort between various base units and contractors under the direction of the incident commander or EOC director. Contractor is expected to fully support this effort and participate in the annual spill preparedness for response exercise training coordinated by 72 ABW/CEIE with DLA.

1.3.11.1.2. Operations Support. Provide support and response during real world and exercise IAW TAFB Plan 10-2 and CECRP 10-211.

1.3.11.1.3. Force Protection Support. Provide support and response during real world and exercise force protection condition changes IAW DODIO-2000.16V1_AFI 10-245-O Standard 6,

Terrorism Vulnerability Assessment, AFI 31-101, Integrated Defense (FOUO) and TAFB Plan 31-101 (FOUO).

1.3.11.1.4. Emergency Operations Center Support. Provide representation in the Emergency Operations Center (EOC) for Emergency Support Function (ESF) No. 3 (Public Works and Engineering) and ESF No.12 (Energy). EOC Support requirements are defined in AFMAN 10-2502 Tables A2.3 and A2.12. Contractor shall provide disaster damage assessment services and coordinate all efforts with the Engineering Contractor's team and CO. Contractor shall notify CO for any cost incurrence to the contract prior to execution.

1.3.11.1.5. Operations Damage Control Center Support. Provide support and coordinate response of Civil Engineer operations during both real world and exercises as directed by the EOC. Contractor shall provide disaster damage assessment services and coordinate all efforts with the Engineering team and CO.

1.3.11.1.6. Contingency and Incident Response Support. Contractor shall respond to contingency or incident as requested by the incident commander, EOC, Crisis Action Team (CAT), or Air Base Wing Commander or alternate. This support will be limited to available Contractor resources already on hand.

1.3.11.2. Response Time. Contractor shall respond within 20 minutes of EOC recall/ for emergencies during normal duty hours and respond within one hour during non-duty hours.

1.3.12. Refrigerant Management Program Support. The Contractor shall provide refrigerant management and shop-level support for the base Refrigerant Management Program IAW AFMAN 32-7002, *Environmental Management and Pollution Prevention*, Headquarters (HQ) Air Force Materiel Command (AFMC) guidance, 40 CFR 82 Subpart F and federal, state, and local standards.

1.3.12.1. Contractor shall provide and submit to R&O and TAFB Environmental for approval a standard operations procedure detailing the processes and actions planned to ensure compliance with AFMAN 32-7002, current AFMC guidance (see attached AFCEC Revised Refrigerant Management Rules), and current EPA requirements within 60 days of full contract performance.

1.3.12.1.1. In the event of a change to EPA law, revision to procedures and record keeping shall be made in a timely manner in order to ensure compliance with EPA requirements at all times.

1.3.12.2. Contractor shall provide training and universal type certification records for any and all technicians servicing the refrigerant section of refrigerant containing equipment. These records are required with 14 calendar days of the contract award, or within 14 days of hire and prior to technician performing unsupervised AC/R service/repair.

1.3.12.3. Contractor shall certify recovery and recycling equipment IAW AFMAN 32-7002 and submit EPA Form 7610-31 Refrigerant Recovery or Recycling Device Acquisition Certification Form, with the initial list of certified equipment. This is a one-time requirement due 60 days after contract award. Certified Recovery equipment shall be maintained per the requirements of AFMAN 32-7002.

1.3.12.4. Refrigerant Manager shall evaluate refrigerant usage on individual systems at least annually to determine and make recommendations regarding replacement planning.

1.3.12.5. Contractor shall develop schedules for inspecting and testing AC/R equipment as required by law.

1.3.12.6. Contractor shall establish and maintain a recurring work program for AC/R equipment for maximum cost benefit through local operating procedures.

1.3.12.7. All refrigerant records shall be kept in APIMS as the refrigerant database of record including, but not limited to refrigerants added, removed, or lost, and AC/R equipment in service, repaired, replaced, and decommissioned.

1.3.12.8. Contractor shall ensure any leaks subject to time-sensitive requirements for repair, recordkeeping, and reporting are addressed per applicable regulations.

1.3.12.9. Contractor shall coordinate with the Installation Support Team (IST) air quality manager to validate EPA reporting requirements. EPA reporting will be initiated by the TAFB Environmental element.

1.3.12.10. Contractor shall maintain capability to evacuate non-RPIE or real property similar equipment (RPSE) containing refrigerant, such as small appliances, upon customer work request, in a timely manner.

1.3.12.11. The contractor shall establish a process to ensure the refrigerant maintenance event, including the amount of refrigerant used to service an AC/R unit, is recorded in APIMS within 7 business days. Contractor shall comply with EPA refrigerant leakage rate requirements found in 40 CFR 82.157.

1.3.12.11.1. Upon completion of charging a refrigerant system or reclaiming/recovering refrigerant, contractor personnel shall input information into APIMS IAW AFMAN 32-7002. Contractor shall also maintain a physical record in a centralized location for at least five years, or until deemed unnecessary by 72 ABW/CEIE.

1.3.12.11.2. Contractor shall assess leak and if any leak exceeding the EPA threshold leak rate cannot be repaired within 30 days, it is considered a leak rate violation and is to be reported immediately to both Refrigerant Manager and Base Civil Engineering.

- (i) Within thirty (30) days of the initial visit, where a leak rate above the EPA threshold leak rate has been observed, the piece of equipment needs to be fully repaired or a determination made that it is un-repairable.

- (ii) Once the determination has been made, that the unit is unrepairable, the Technician or Supervisor will notify, via e-mail or by phone/in person, the Refrigerant Program Manager within 24hrs and include in the notification the facility, unit type, model number, serial number, current leak rate, and the reason it cannot be fixed.

1.3.12.12. Contractor shall treat all refrigerant leaks as Priority 1 (emergency).

1.3.12.13. For AF and EPA required leak rate calculations, contractor shall use and select the Annualize Method (Method 1 in APIMS).

1.3.12.14. Leakage Repair: EPA required refrigerant management equipment servicing records must be kept for a minimum of five years in order to meet TAFB state environmental requirements.

1.3.12.15. All refrigerant leaks shall be repaired within 30 days or if it is determined the unit cannot be repaired in 30 days, refrigerant shall be evacuated and unit mothballed until the required parts or services are available. Contractor shall treat all refrigerant leaks as Priority 1.

1.3.12.16. In the event that a circuit containing 50 lbs or more of refrigerant exceeds the leak threshold (10% for comfort cooling), an additional follow up leak inspection work order shall be issued for the EPA required periodic (annual for comfort cooling) leak inspection. Leak inspection shall be per EPA recommendations and requirements.

1.3.12.17. Contractor shall perform and document initial and follow up verification tests. Follow up verification tests shall be performed within 30 days after repairs are completed.

1.3.12.18. Servicing records documenting the date and type of service, leak repair calculations, and quantity of refrigerant added must be kept for 5 years.

1.3.12.19. Contractor shall keep and maintain both physical and electronic copies of all items required to meet the EPA 5 year refrigerant leakage rates legacy data requirements. Electronic copies of all service records and refrigerant inventory shall be maintained in APIMS as the database of record.

1.3.12.20. Contractor shall provide upon request current Refrigerant Management System Reports. Updated reports listed below are required on an annual basis. Reports will be required for each type of refrigerant.

1.3.12.20.1. Refrigerant Service Record Report consisting of a complete list of all AC/R equipment with reported refrigerant leaks during the past year or longer. This list will include the leakage rate and indicate if the leakage rate exceeds the EPA threshold leakage rate.

1.3.12.20.2. Annual Excessive Leakage Rate Status Report which consists of units from the service record report that exhibited leakage above the EPA threshold and what corrective action was taken. The report also includes the outcome of the repair work as well as dates for initial and follow up verification as required by the EPA.

1.3.12.20.3. Equipment Inventory Report which shall include a complete AC/R equipment inventory of equipment sorted by refrigerant type and refrigerant quantity.

1.3.12.20.4. Contractor shall ensure refrigeration equipment information contains equipment model number, serial number, refrigerant type, and quantity for individual equipment being tracked.

1.3.12.20.5. Contractor shall utilize physical inventory data from facility inspections to update equipment inventory lists as survey data becomes and update Refrigerant Equipment Inventory Records on a quarterly basis.

1.3.12.21. Contractor shall manage refrigerant inventories IAW AFMAN 32-7002. Inventory management shall be accomplished on a per refrigerant basis.

1.3.12.21.1. A refrigerant log must be maintained for each refrigerant so the refrigerant's actual consumption rate can be used to predict how much refrigerant should be stored for maintenance purposes.

1.3.12.21.2. A refrigerant inventory summary sheet is required on an annual basis reflecting the previous year refrigerant transactions and inventory adjustments.

1.3.12.21.3. Contractor shall keep records of refrigerant purchased and provide purchase order and other types of purchase records upon request.

1.3.12.22. Contractor shall maintain equipment to minimize refrigerant leakage IAW AFMAN 32- 7002 recommendations and requirements including but not limited to EPA Service Practice Requirements.

1.3.12.22.1. The Contractor shall track refrigerant consumption by each piece of equipment.

1.3.12.22.2. The Contractor shall track to ensure status of air conditioning/refrigeration technician training and certifications are current and compliant with regulations.

1.3.12.22.3. Contractor shall adhere to AFMAN 32-7002, *Environmental Compliance and Pollution Prevention*, for procurement, handling and disposal of ODS refrigerants and non-exempt substitute refrigerants, as well as any other hazardous materials and associated wastes consumed or generated while performing AC/R appliance replacement, maintenance, repair or disposal. (i.e., soldering and brazing materials, compressor oils, system conditioning additives, cleaners, oxidant removers, etc.)

1.3.12.22.4. Contractor shall maintain capability to evacuate non-RPIE and other small appliances, upon customer work order request, in a timely manner.

1.3.12.23. Contractor shall develop, update, manage, and maintain the Tinker Air Force Base Refrigerant Management Program. Contractor shall manage inventories of all refrigerants. This program shall include implementation of six major elements: 1) certifying technicians and recovery equipment, 2) complying with all EPA requirements, 3) maintaining equipment to minimize refrigerant leakage, 4) managing refrigerant inventories, 5) planning equipment phase-outs, and 6) generating the Annual Base Refrigerant Management Program in accordance with the provided Annual Refrigerant Management Plan Guidance.

1.3.12.24. Contractor shall submit the Annual Base Refrigerant Management Plan IAW the provided Annual Refrigerant Management Plan Guidance Document.

1.3.12.25. The Annual Base Refrigerant Management Plan shall follow the RMP Suggested Table of Contents and address and provide each item indicated in Chapter 4: Annual Base Refrigerant Plan.

1.3.12.26. The Annual Base Refrigerant Plan including all appendices shall be submitted for BCE certification on an annual basis, due at the end of each calendar year. Contractor shall provide a copy of all updates to the refrigerant management system with changes clearly identified.

1.3.12.27. The contractor shall submit information and documentation showing how the activities and data collection from the previous quarter are being implemented and recorded in the refrigerant management system (APIMS).

1.3.12.28. Contractor shall also brief R&O on the overall status of the Refrigerant Management Plan on a quarterly basis. The quarterly updates shall as a minimum include an electronic and hard copy of refrigerant management data sheets filled out for each refrigerant equipment service or transaction performed in the last quarter, any include updates to all EPA required refrigerant service records, and updates to decommissioning equipment and inventory reports. A statement or record demonstrating that all required information and records have been correctly entered into APIMS shall also be included in the quarterly update.

1.3.12.29. The contractor shall provide support and documentation assistance as needed for EPA audits and Air Force Refrigerant Management Related Audits. The assistance typically includes meeting with inspection team, bringing a printed copy of the latest refrigerant management plan, answering any questions regarding TAFB refrigerant management related activities. Contractor shall be able to explain all processes involved in refrigerant management. Back records of refrigerant service records and other refrigerant related documents are typically requested for evaluation. Contractor shall be able to quickly produce requested documents. In addition the contractor shall assist in providing guidance and access to shops, warehouses, and mechanical rooms in order to access refrigerant containing equipment, etc.

1.3.13. U-Fix-It Program. The Contractor shall manage and perform all activities and functions related to supporting a U-Fix-It store that allows designated facility managers to identify and accomplish minor, simple tasks that do not require special tools or technical expertise. The Contractor shall equip U-Fix-It store to support “one-stop service” for customers and use customer input to coordinate adjustments to the approved product list. Provide materials, loaner tools, technical advice, training, and assistance to perform minor maintenance (e.g., changing light bulbs, replacing switch plates/electrical outlet covers, touching up paint, etc.). U-Fix-It operations will coincide with normal duty hours. Approximately eight hours of technical and minor shop support per week will be provided for the program. All costs associated with the program shall be tracked independently with charges placed against the organization being supported. The program shall meet the objectives outlined in AFI 32-1001 and the *Materiel Control Playbook*.

1.4. Operations Engineering Support. The Contractor shall provide technical and informational support for engineering programs that require facility, infrastructure, and equipment information inherent to the requirements within this PWS.

1.4.1. Technical Support. The Contractor shall provide technical support for planning and design of projects impacting existing facilities and infrastructure. Contractor shall:

1.4.1.1. Perform maintainability, compatibility, and operability reviews of renovation and alteration designs for existing facilities and infrastructure at 15, 35, 65 and 95%. Review period is typically one to five workdays depending on urgency. Design review checklists are provided in Appendix 4.2.

1.4.1.2. Attend O&M training for completed construction projects.

1.4.1.3. Participate in Pre-Final and/or Final inspections for construction project nearing completion. The Contractor will not be performing quality assurance, but is expected to become familiar with the new equipment and identify O&M concerns, which should be addressed prior to finalization of project. The Contractor shall maintain DD 1354 information and warranty information associated with projects and in-house work.

1.4.2. Maintenance Master Plan (MMP) Support. The Contractor shall provide shop-level informational support for development of an effective MMP. The MMP is the responsibility of Engineering Services Contractor for updating and tracking, Contractor will support MMP development by addressing maintenance queries requested by Engineering Services Contractor. Contractor shall:

1.4.2.1. Provide equipment data necessary for programming out year maintenance and repair requirements.

1.4.2.2. Provide recommendations for modifications to schedules of existing equipment maintenance and repairs.

1.4.2.3. Provide equipment operational data useful in tracking PM performance.

1.4.2.4. Provide shop-level recommendations of facilities requiring assessments for upcoming year.

1.4.2.5. Ensure SMS database program information in support of MMP is properly captured with equipment assessment information gathered by respective technicians.

1.4.3. Base Infrastructure Program Support. The Contractor shall provide shop-level technical support for the development and maintenance of infrastructure programs and five-year plans by providing condition assessment reports to R&O and Engineering Services Contractor when performing PM maintenance of equipment. Information captured will meet the format of AFI 32-1001, *Civil Engineer Operations and Sustainment Management Systems Playbook*.

1.4.3.1. Contractor shall provide shop/technical support to R&O to prioritize AMP (Asset Management Plan) data calls from HQ.

1.5. RESOURCE MANAGEMENT. The Contractor shall provide logistics and management support to order, purchase, accept delivery, store, inventory, and distribute Contractor Acquired Parts (CAP) to support tasks and services required by this contract, including maintaining a bench

stock of needed items for priority systems. Contractor shall maintain a file management system to ensure contract related records are retrievable, accountable, and secure. File shall be stored on Government server and accessible to Government at all times.

1.5.1. Information Management. The Government will supply as Government furnished property Automated Data Processing Equipment (ADPE) for the Contractors use. Computers will be subject to all computer security and compliance with USAF directives and regulations governing physical and operational security. Contractor shall ensure that information management practices/activities are in accordance to the following instructions: AFMAN 17-1203, *Information Technology (IT) Asset Management (ITAM)*; AFI 17-130, *Cybersecurity Program Management*; AFI 33-115, *Network Operations (NETOPS)*; AFMAN 17-1302-O, *Communication Security (COMSEC) Operations*, and AFI 33-322, *Records Management and Information Governance Program*. The Contractor's currently provided ADPE; workstation, printers, copiers, etc. which have been established for their use during performance of this contract may remain in use as long as it is fully compatible with Government networks and equipment as previously stated. Only AF approved computers and related equipment shall be used and connected to the TAFB Network. Contractor shall ensure computer security and compliance with USAF directives and regulations governing physical and operational security. Work closely with the Communication Groups, IT groups, CE ICS and IAM.

1.5.1.1. Records Management. All documents and established databases used in fulfillment of this contract, including on-going working files and completed electronic and hard copy, are considered sole property of the Government and available for inspection by Government personnel at all times. Contractor shall adhere to TAFB 100-21, *Records Management Requirements for Contractors Working at TAFB*. Contractor shall provide full access to all records (working and completed), database, logs, tracking logs, quality control inspection sheets and records, PMTLs and its supporting documents, reports, etc. at all times to Government (R&O and COR). These records are not to be considered proprietary records for the sole use of the Contractor in performance of this PWS. Records are not releasable to third parties without prior approval by the CO. All records, files, documents, and work papers provided by the Government or generated in support of this contract are Government Property and shall be maintained and disposed only upon CO approval. Contractor shall comply with the following records management regulations for all official USAF records: AFI 33-322, *Records Management and Information Governance Program*. Contractor is responsible to transfer all expired printed documents to Government assigned staging area for proper disposal. The contractor shall keep all records (PM, inspections/maintenance logs and records, database, and other records) throughout the life of the contract. All records (electronic and hardcopy) shall be transferred to the Government at the end of the contract in its manageable format.

1.5.1.2. Freedom of Information Act (FOIA) Program. All official Government records affected by this contract are subject to the provisions of the FOIA, 5 U.S.C. 552, DoD 5400.7-R, AF Supplement. Any request received by the Contractor for access and releases of information from these records to the public (including Government and Contractor employees acting as private citizens), whether oral or in writing, shall be immediately brought to the attention of the CO for forwarding to the Base FOIA Manager to ensure proper processing and compliance with the Act.

1.5.1.3. Database Management. All the software programs and databases created, managed, or developed in support of this contract must be turned over to Government at the end of the term of the contract in original and useable format with functional software. All work performed under this contract shall be accomplished and saved on a Government server, which is managed by the Government. Government will have full access to information stored and processed on Government server at all times. All the access rights will be managed and granted by Government. Contractor shall be responsible to develop a Filing Plan IAW AFI 33-322 and the *Electronic Records Management Solution Guide* for submittal and approval prior to onset of full contract performance. Contractor shall ensure personnel who manage contractor records on Government's Electronic Records Management System (ERMS) are properly appointed, trained, and certified IAW AFI 33-322. Contractor must support and maintain all official Air Force Civil Engineer data management systems, including new implementations and roll out requirements.

1.5.1.4. Suspense Tracking. The Contractor shall maintain a suspense date tracking system to ensure all tasks are properly coordinated and completed on schedule. Contractor shall immediately notify R&O and CO if a suspense date cannot be met. Extensions to suspense date deadlines shall be approved by the office generating the suspense date and coordinated with the CO. Suspense tracking database will be available for Government to review at all times. Time-critical information requests come from customers of all levels.

1.5.1.4.1. The deliverables provided in Appendix 4.3 are not comprehensive and inclusive of all deliverables required but are intended to provide format and data requirements for the most important data requirements.

1.5.1.5. Meeting Minutes. Contractor shall be responsible for meeting minutes for all meetings with the Government in performance of this contract, unless directed by R&O otherwise. At a minimum, meeting minutes shall include list of attendees, time and date of meeting, original agenda or purpose of meeting, documentation of pertinent information discussed and decisions made. Minutes shall be distributed to all attendees and invitees within five workdays after the meeting. If critical omissions or deficiencies are identified by Government, the Contractor shall make all necessary corrections and reissue meeting minutes within five workdays. (See Appendix 4.3)

1.5.2. Contractor Acquired Parts (CAP). The Contractor shall research, determine sources of supply, and process requisitions for material requests in support of requirements stated in this PWS. This shall be accomplished locally for CAP (part purchase and subcontract agreements) totaling less than \$100,000.00 (outreach capability may be used for CAP exceeding this threshold). The Contractor shall be responsible for acquiring materials for the performance of this PWS utilizing the Government provided material management system or R&O approved alternate system IAW AFI 32-1001, *Civil Engineer Operations*. The Contractor's accounting and logistics system shall accurately control and account for inventory. Perform a 100 percent physical count of the CAP inventory at least on an annual basis. The Contractor will receive funding through the CAP line item for the purchase of Government owned material that supports this contract. CAP includes all materials used to complete work requirements. Items designated in this PWS as Contractor furnished will not be reimbursed. The Contractor shall manage all storage functions and establish and maintain a material deficiency reporting system. If adequate warehousing capabilities are not available on TAFB, Contractor is responsible to ensure adequate storage off

installation. The Contractor shall maintain a central hazardous material storage and issue point per the current version of AFI 32-7086 with Tinker AFB Supplement, *Hazardous Materials Management*.

1.5.2.1. Prior Governmental approval is not required for purchases of items totaling less than \$5,000.00. The Contractor shall obtain R&O approval for purchases of items totaling \$5,000.00 or more. BCE and CO approval is required for purchases of line items totaling \$10,000.00 or more. The Contractor shall utilize competitive purchase procedures and cost realism (a government source shall be used in the comparison or justification provided for using only commercial sources). The Government will not reimburse the Contractor for sales tax paid to vendors. The Contractor shall obtain a "Sales Tax Exemption: United States Government" from the Oklahoma Tax Commission under Title 68, O.S. 2002 Supp., Section 1356 (1). The Contractor shall provide the Sales Tax Exemption Permit Number to all vendors from whom purchases are made. Title to all property purchased by the Contractor for which the Contractor is entitled to be reimbursed as a direct item of cost under this contract shall pass to and vests in the Government upon the Contractor's receipt of such property.

1.5.2.2. Once each month (or more frequently as directed by the CO), the Contractor shall submit an invoice for all purchased CAP line item materials to the CO or authorized representative. The Contractor shall immediately notify the CO or authorized representative when material expenditures for work requirements are expected to exceed 85 percent of the available CAP funds. Contractor will provide to the government the following funding tracking documents: The Invoiced details AP Transactions through Post Date, Billing for CAP Purchases, a sample copy will be provided, contractors Vendor Check History, and complete copies of all invoices for CAP purchase for government COR inspections. Contractor's equipment custodian will provide to the COR all purchase receipts on approved new equipment requests.

1.5.2.3. The Contractor agrees that any refunds, rebates, credits, or other amounts (including any interest) accruing to or received by the Contractor or any assignee under the contract shall be paid by the Contractor to the Government, to the extent they are properly allocable to costs for which the Contractor has been reimbursed by the Government under the contract. The Contractor shall credit the Government for 50 percent of trade discounts, including early payment discounts, offered by vendors, including discounts lost by lack of prompt payment by the Contractor. The Contractor may retain 50 percent of all discounts actually received by the Contractor.

1.5.2.4. Affirmative Procurement (AP). Contractor shall ensure cost effective affirmative procurement of environmentally preferable products and services IAW the DoD Green Procurement Program. Contractor shall ensure compliance with the United States Environmental Protection Agency (USEPA) designated guideline *Comprehensive Procurement Guideline (CPG) III* for mandatory procurement. These CPG products are products that are or can be made containing recycled materials. A current detailed listing of these products and recycled content requirements can be found at <http://epa.gov/cpg/products.html>. Contractor is required to research, propose and utilize designated products, and any other recycled-content products available in the market IAW 40 CFR 247.2.

1.5.2.4.1. Contractor shall ensure the following information is provided: Recommend Recovered Materials Content Levels, Product Specifications, and Product Information that includes the list of

suppliers will be provided. The CPG products with the highest percentage of recovered materials practicable shall be utilized, unless otherwise specified, or if one more of the following exemptions apply:

- a) Does not meet appropriate performance specifications.
- b) Is not available competitively (from two or more sources).
- c) Is not available within a reasonable time frame.
- d) Is only available at an unreasonable price.

1.5.2.4.2. Contractor shall certify that the percentage of recovered materials to be used in the performance of the contract will be at least the amount required by applicable specifications or other contractual requirements. Contractor shall also estimate the percentage of total material utilized. The Contractor shall provide written explanation and documentation as to why any of the products were not used. A *Recovered Material Determination Form*, available by request from CO, shall be used to document any exemption.

1.5.2.5. Subcontract agreements may be used to rent equipment as directed by the government to maintain facility operations.

1.5.3. Vehicles

1.5.3.1. The contractor shall obtain passenger and light duty vehicles required under this contract through GSA Vehicle Lease Program. Electric and/or hybrid vehicles shall be utilized wherever charging stations are available (16 charging stations available at B414).

1.5.3.1.1. The contractor may provide their own fleet (either leased or purchased), if a cost analysis shows that the contractor fleet is more advantageous to the government. Specifically, the monthly charge for vehicles including fuel must be less than the published GSA rates for the same vehicles.

1.5.3.1.2. Contractor fleet vehicles must be less than 8 years old and have less than 60,000 miles at all times.

1.5.3.2. Indefinite Transferrable Lease. This lease is for vehicles and/or equipment that are not available on GSA lease for CE base maintenance at Tinker AFB. The lease will be set on an indefinite time period for the useful life of individual vehicles and/or equipment (determined by the CO and/or COR). The lease will be transferrable at no cost, except any transfer or document fees paid to the leasing company, from contractor to contractor, and/or whomever performs the CE base maintenance services at Tinker AFB.

1.5.3.2.1. All vehicles and/or equipment shall be approved by the CO before they can be included on the lease. Contractor proposal shall include pricing for purchase, fixed lease for remaining period of the contract, and an indefinite transferrable lease paid in a single payment. Any transfer fees associated with the indefinite transferrable lease paid to the leasing company shall also be

included in the proposal. The single lease payment of each vehicle or equipment can be invoiced and submitted for review and CO/COR approval after delivery and 100% operational.

1.5.3.2.2. All vehicles and/or equipment requiring a license plate, registration, title, insurance, or applicable taxes by Oklahoma State law shall be paid for by the incoming contractor.

1.5.3.2.3. All vehicles and/or equipment shall have an maintenance binder, AF Form 1800 and be maintained by the operators of the vehicles, Standard Form 91 for accident reports, DD 518 accident identification card.

1.5.3.2.4. Contractor is responsible for all warranty issues, repairs, maintenance, and damage. All repairs and maintenance shall be performed by a third party at the cost of the awarded contractor.

1.5.3.2.5. During the Transferring period from contractor to contractor, titles will be transferred to the incoming contractor and/or whomever performs the CE base maintenance services at Tinker AFB. All registration, title, insurance, or applicable taxes shall be paid for by the titled owner. All damage shall be repaired and all vehicles and/or equipment will be 100% operational by the incumbent contractor before the transfer to the incoming contractor.

1.6. REQUIRED GENERAL SERVICES:

1.6.1. Vehicle Licensing. Contractor's employees operating motor vehicles shall possess a valid state driver's license including applicable commercial driver's license and be flight line certified IAW local policy, if access to the flight line is required. Contractor shall be responsible for providing initial and annual refresher flight line driving training for their employees, sub-contractors and CE government personnel. Government will provide "train-the-trainer" certified training for Contractor selected personnel to ensure compliance with the requirements.

1.6.2. Airfield Vehicle Operations. The Contractor shall ensure personnel working in controlled areas of runways, overruns, taxiways, and aprons have radios to communicate with Base Operations and the airfield control tower, and observe flight line control procedures. Contractor shall ensure all airfield equipment has an operating rotating or flashing yellow light. All Contractor personnel driving on the airfield shall possess an airfield flight line driver's license.

1.6.3. Foreign Object Damage (FOD) Prevention Plan. The Contractor shall provide a FOD Prevention Plan that meets the requirements, as they pertain to AFI 21-101, *Aircraft and Equipment Maintenance Management*. The plan and program shall include provisions for control and accountability of all Contractor utilized vehicles, equipment, tools, and materials while within or near a controlled area. The plan shall be submitted to R&O for review and approval prior to full contract performance.

1.6.4. Daily Management. The Contractor shall conduct those meetings and briefings inherent to execution of this PWS. Contractor shall prepare and distribute an agenda for the meeting that afford at least five workdays' notice to attendees. Contractor shall prepare and distribute minutes within five workdays after completion. Contractor shall ensure a responsible member is present and prepared to brief operations issues at meetings of base activities that involve base CE interests and when representation is requested by another base activity. Contractor shall ensure that

appropriate media is employed to ensure purpose and desired outcome from the meeting or briefing is obtained.

1.6.5. Facility Manager. Contractor shall provide a facility manager and an alternate facility manager for each facility solely or primarily occupied by the Contractor, including all facilities designated as CE facilities in Appendix 4.7.2. In multi-user facilities where the Contractor is not primary user, Contractor shall identify an organizational building representative. Contractor shall be responsible for all duties outlined AFSC TAFB Handbook 32- 9001, *Facility Management Guidelines*.

1.6.6. Environmental Management (72 ABW/CEIE) Notification. Upon discovery of a violation of environmental regulations, permits, plans or instructions, the Contractor shall immediately notify 72 ABW/CEIE verbally of the situation and provide all details that are known at the time. The Contractor shall follow up this immediate verbal notification with written notification, email or paper memorandum, within one workday. Immediate notification is considered to be the same workday if discovered during normal duty hours, or if during non-duty hours the following workday.

1.6.7. Environmental, Safety, and Regulatory Inspections. The Contractor shall accompany 72 ABW/CEIE and Safety personnel and other regulatory agencies during inspections of civil engineering activities. The Contractor shall address and prepare corrective action responses to findings resulting from the inspections. Contractor shall provide a preliminary corrective action plan response within ten workdays, or sooner if required by environmental regulation or base environmental plans, after the inspection to R&O identifying the recommended corrective actions to be implemented with associated milestone schedules.

1.6.8. Administrative Supplies. The Contractor shall provide administrative support for Contractor's activities and furnish all administrative supplies required by the Contractor to support this PWS.

1.6.9. Administrative Correspondence. The Contractor shall prepare responses and coordinate through R&O on all base-representative correspondence replies such as award nominations, action lines, suggestions, requests for information, safety office surveys, newspaper articles, replies to HQ AFMC, tenant inquiries, reports submitted to HQ AFMC, and Congressional interest items.

1.6.10. Permit Requirements. The Contractor shall ensure that all work performed under this contract, inclusive of subcontract work, will file, submit and obtain approval of all necessary permits prior to execution, inclusive but not limited to work clearance request, crane waiver, hot work permits, and environmental requirements. Cranes over 200 ft will also require FAA waiver.

1.6.11. Special Event Activities. The Contractor shall support special events during and outside of normal duty hours for change of commands, open houses, Star Spangled Salute, air shows, Distinguished Visitors, banquets, inspection (UCI, IG, HAF or MICT) preparations, support and/or audits, and dignity visits as deemed by the BCE or CO. Work in support of special events shall be executed as 4A.

1.6.12. Work Clearance Requests. Contractor shall support requirements for execution of the excavation permit program for all Work Clearance Requests (previously Digging Permits) IAW AF Form 103, including but not limited to all construction projects (executed throughout the life of the contract), utility privatization support projects, energy saving projects, CMs, and EWs within 5 workdays of request. Contractor shall identify respective utility POC to ensure field markings are accurately placed and permit signed-off. Contractor shall ensure that all utility lines identified on permit correctly depict site conditions; if discrepancies exist, Contractor shall update respective utility drawings by redline and submit to Engineering Contractor. Contractor shall use GFE ground penetrating radar (GPR) to located underground utilities as requested.

1.6.13. Outages. Contractor shall support facility and infrastructure requirements to ensure scheduled and unscheduled outages are executed efficiently and safely supporting Civil Engineering Services including but not limited to all construction projects (executed throughout the life of the contract), utility privatization support projects, energy savings projects, CMs, EWs, and PM. Contractor shall take full advantage of scheduled outages to perform PM work where an outage is required. If a planned scheduled outage cannot be utilized for PM execution, Contractor will properly staff and coordinate outages in support of PM activities.

1.6.13.1. Outage Report. Contractor shall submit a monthly report electronically in a spreadsheet form for scheduled and unscheduled infrastructure outages. Outage report shall include but not limited to Electrical Outage, Water Distribution (Domestic and Fire Distribution) System Outage, Fire Hydrants, Natural Gas Outage, HVAC System (Boiler, Chillers, AHU's systems, Steam) Outage, Compressed Air Distribution System, Power Pro Generator Outage, Sanitary and Industrial Waste System Outage, Fire Protection and Alarm System Outage, AFFF System Outage, Roads and Parking Lot Outage, and Interior Building Closure Outage for the Priority Facilities including the complete operational logs.

1.6.13.1.1. Reporting. The report shall include as a minimum, Start Time, End Time, Duration, Utility Type, Buildings Affected (Whole/Partial), Reason, Primary/Secondary Cause (refer to USORT below), Circumstance (USORT), Impact to Mission (USORT), Event Notes/Comments, Resulting Consequences, Action Made, etc.

1.6.13.1.2. Utility System Outage Report Tracking (USORT). USORT is the energy management information technology system approved by AFCEC to track and report electrical outages, in accordance with the *Air Force Guidance Memorandum (AFGM) to AFMAN 32-1061, Providing Utilities to U.S. Air Force Installations*. USORT provides real-time reporting, tracking, and analysis of short-term outages on Air Force Bases. Per the AFGM, utility system performance on geographically separated units is included and rolled up with the parent installation report.

1.6.13.1.3. USORT Tool. Contractor shall utilize USORT web tool to fill out the required information within 2 working days of each outage completion:
<https://cs2.eis.af.mil/sites/10758/eneres/Scripts/USORT/USORTHome.aspx>.

1.6.14. Oversight Support. The Contractor shall assist the Airfield Manager, Safety Office and Base Civil Engineering in the following capacities:

1.6.14.1. Participate and provide technical support in the Annual Airfield Certification Safety Inspection IAW AFMAN 13-204, V2 and to evaluate airfield condition and compliance with USAF airfield infrastructure and safety requirements.

1.6.14.2. Participate and provide technical support in the Annual Local Vulnerability Assessment IAW DODIO-2000.16V1_AFI 10-245-O Standard 6, *Terrorism Vulnerability Assessment*. TAFB is required to perform an annual vulnerability assessment of the installation. The responsibility for the assessment is found under the Integrated Defense Working Group Charter (TAFB Plan 10-245, Appendix 2 to Annex A) and Tab C (Vulnerability Assessment Team).

1.6.15. VTC Participation. Contractor shall participate in Video Teleconferencing (VTC) meetings and on-site and off-site meetings related to 72 ABW/CE missions.

1.6.16. Environmental Controls. The Contractor shall comply with all applicable environmental laws and regulations in performance of work. The Contractor shall comply with TAFB Instruction 32-7004, *Hazardous Waste Management Instruction* and the environmental requirements outlined in the TAFB's Integrated Natural Resources Management Plan. The Contractor shall be liable for and shall promptly pay any fines or penalties assessed against the Air Force, the Department of Defense, or the United States for noncompliance resulting from environmental violations attributable to the Contractor's employees or agents, or subcontractors, in performing this contract. The Contractor shall promptly reimburse the Air Force for any penalties, fines, assessments, response costs, or other environmental compliance expenses paid by the Air Force which result from environmental violations attributable to the Contractor's employees, agents, or subcontractors.

1.6.16.1. Notification of Environmental Spills. If the Contractor spills or releases any substance into the environment that is beyond their cleanup capability, the Contractor or his agent shall immediately report the incident to the 72 ABW/CEF at 911 to meet the requirements of TAFB Plan 19-2, *Oil and Hazardous Substance Integrated Contingency Plan Emergency Response Action Plan Summary* for Tinker Air Force Base, Oklahoma. Incidents involving radioactive materials shall be reported IAW AFD 40-2, *Radioactive Materials (Non-nuclear Weapons)* and AFMAN 40-201, *Radioactive Materials Management (RAM)*. The liability for the spill or release of such substances shall rest solely with the Contractor and/or his agent.

1.6.16.2. Material Storage and Use. The Contractor shall follow manufacturer's guidelines and professional recommendations for control of humidity, temperature, cleanliness, and materials handling. This shall include hazardous materials.

1.6.16.2.1. The contractor is responsible for advising employees of all environmental and hazardous materials handling and is also required to have and maintain Safety Data Sheets (SDS) for all chemicals used by the Contractor for conformance with federal and state laws and regulations.

1.6.16.2.2. Contractors using hazardous materials in the performance of their contract must participate and comply with the Hazardous Material Management Program as described in AFI 32-7086 with Tinker AFB Supplement, *Hazardous Materials Management*. Contractor shall manage hazardous material requests, enter data into the EESOH-MIS system, and report monthly

the hazardous material used by all personnel managed under this contract, inclusive of subcontractors.

1.6.16.2.3. Contractor shall comply with all recordkeeping, training, and handling procedures in 40 CFR 82. Contractor shall have records available at all times for regulatory inspections or internal audits.

1.6.16.3. Contractor Environmental Plan. The Contractor shall provide a complete Environmental Plan to assure compliance with all environmental statutes and regulations. One copy of the plan shall be provided to the CO within 30 calendar days after contract award and updated annually.

1.6.16.4. Contractor's Pollution Prevention Responsibilities. "Pollution Prevention" and "Source Reduction" are defined in the *Pollution Prevention Act of 1990*, 42 U.S.C. §§ 13101-13109. Further, the Contractor shall comply with DoDI 4715.4, *Pollution Prevention*. Contractor is encouraged to submit pollution prevention proposals as CPI events.

1.6.17. Contractor Manpower Reporting. The Contractor shall report ALL Contractor labor hours (including subcontractor labor hours) required for performance of services provided under this contract for the 72 ABW/CE via a secure data collection site. The contractor is required to submit data at <https://www.sam.gov>. Reporting inputs will be for the labor executed during the period of performance for each Government Fiscal Year (FY), which runs 1 October through 30 September. While inputs may be reported any time during the FY, all data shall be reported no later than 31 October of each CY.

1.6.18. Reserve and Guard Component Augmentation. The Contractor shall periodically support the Air Force Reserve 507th Civil Engineering Squadron and Air National Guard with on-the-job-training. Training support may include access, shadowing and travel support to job sites, verbal instructions on equipment operations, maintenance, and repair of RPIE and vehicles. If requested by Government, Contractor shall complete AF IMT 623A and provide to requesting organization.

1.6.19. Government Queries. Contractor shall provide response to queries posed by Government (CO, COR, or R&O) within 48 hours of query request. Government queries will usually be via e-mail request and relevant to contract execution or clarification. Queries will be related to but not limited to contractual performance, equipment assessments, Contractor operational capabilities, quality performance, or execution schedules. Initial response shall be acknowledgement of query receipt and milestone schedule for Contractor's reply, if more than 48 hours are required. Contractor shall notify requestor of new response deadline.

1.6.20. Contractor Quality Control Management. In compliance with contract clauses FAR 52.246-4, "Inspection of Services - Fixed Price", FAR 52.246-2, "Inspection of Supplies - Fixed-Price", FAR 52.246-12 "Inspection of Construction, and FAR 52.246-16, "Responsibility for Supplies", the Contractor shall provide and maintain an inspection system, determined acceptable by the Government, to be referenced as its quality control program. The contractor's quality control program shall ensure all requirements are being accomplished in accordance with the specifications of the contract and shall be certified to ISO 9001 or equivalent industry standard. The contractor shall demonstrate a concerted effort in improving its quality control program to

prevent unsatisfactory performance from recurring in any area and to ensure unsatisfactory performance is addressed and rectified in a timely manner. The Contractor shall have an independent inspection program, in that the inspectors have not performed the inspected work or are under direct supervision of personnel directly responsible for the inspected work. The inspectors shall have knowledge of the PWS requirements and are technically qualified with a minimum of ten years experience in the subject area being inspected.

1.6.20.1. Contractors' QCP Requirements. Contractor shall establish and maintain a complete QCP to ensure the requirements of this contract are delivered and the performance standards are met. The CO will notify the Contractor of acceptance or required modifications to the plan. The Contractor shall make appropriate modifications (at no additional cost to the Government) and obtain acceptance of the plan. Contractor shall update and resubmit the plan on an annual basis to incorporate any changes or modifications to the contract. (Reference Appendix 4.3) In addition the QCP shall:

1.6.20.1.1. Provide procedures for an independent inspection program to cover tasks and services in the PWS and with emphasis on the Performance Objectives in the Services Summary. The Contractor shall clearly identify the organizational structure of the quality control office in relationship to the rest of the Contractor's organization. The quality control office shall report directly to the Contract Manager. The QCP shall include a list of the names and phone numbers of all quality control staff. The Contractor shall capture all the quality control inspections in a quality control database. The inspection shall capture as a minimum: date of QC, time of QC, building number, post location/door #, PWS Para, UID, PMTL #, Work Order #, CM #, detail observation (with photo if any taken), any remarks why an equipment is down or not repaired/maintained, shop POC responsible for that item and any other information that identifies where and at what location the inspection was performed. The Contractor shall report any non-compliance of the PWS to COR and R&O within 3 business days of their findings and include corrective action plans to correct the non-compliance. The quality control database shall be updated within 24 hours of the inspection performed. The quality control database shall be accessible to all COR and QA.

1.6.20.1.2. Identify all required information and records not identified in Appendix 4.3 required by instructions, regulations, codes, etc. Contractor is responsible for maintaining these records.

1.6.20.1.3. Identify all trade technicians e.g. plumber, HVAC, locksmith, etc. which require special certifications, licensing or substantial experience in lieu, i.e. 10 years' experience, Tinker specific knowledge, etc. Contractor shall include the personnel with qualifications to fulfill the respective requirements with expiration dates of certifications.

1.6.20.1.4. Include specifics as to the areas to be inspected on a scheduled and unscheduled basis, procedures and rational for determining inspection schedules, listings, the organizational structure of the quality control office and how it relates to the rest of the contractor's organization and make-up of quality control inspection reports to be generated, and procedures for submission to the COR. The QCP will identify the procedures in writing for inspections, individual responsible, and the location of all inspection records and key control logs.

1.6.20.1.5. Provide a description of the methods to be used for identifying and preventing defects in the quality of service performed. The Contractor shall describe how this process will improve performance.

1.6.20.1.6. Include procedures for a customer feedback program to collect customer input and address customer complaints. A Government approved procedure will be set up to enable customer feedback to a central location accessible to the Government and Contractor.

1.6.20.1.7. Incorporate Air Force Continuous Process Improvement (Air Force CPI) principles to evaluate and improve Civil Engineering processes using the eight step problem solving model. Air Force CPI, AFI 38-401, *Continuous Process Improvement (CPI)*, is an improvement model customized to the unique environment of the United States Air Force which leverages improvement methods from various sources such as; Lean, Six Sigma, Theory of Constraints, and Business Process Reengineering. Using a trained Green Belt, the Contractor shall identify “Green Belt” areas and methodology in the PWS where CPI can be implemented as part of the initial QCP submittal. Contractor shall expand on the concept using QC inspection results to establish new processes and procedures to prevent problem reoccurrences and to make Civil Engineering processes more efficient and lean.

1.6.20.1.7.1. Contractor shall present at least two recommended CPI events in the “Just Do It (JDI)” category, which have been vetted through the initial 8-step development process, to each PMR quarterly meeting for review and implementation. Contractor shall implement at least one JDI per quarter.

1.6.20.1.7.2. Contractor shall present at least two recommended CPI events in the “Rapid Improvement Event (RIE)” category, which have been vetted through the initial 8-step development process, to the initial PMR for each contract option period for review. Contractor shall be required to implement at least one RIE event per contract option period.

1.6.20.1.7.3. Contractor shall reference the current Air Force CPI Playbook for more information. Contractor shall present the results of each CPI event completed at the next PMR following event execution and shall provide updates on previously reported CPI events.

1.6.20.2. The Contractor shall develop Standard Operating Procedures (SOP) and/or Maintenance Control Plans (MCP) for operational processes where quality controls, consistency of results, reduction of deficiencies, and communication between technicians/operators are required. Appendix 4.8 is not inclusive. Contractor shall create new SOPs as required. The initial QCP will summarize the listing of SOPs and MCPs identifying the processes to ensure proper implementation of each SOP and MCP. The Contractor shall maintain a master list of all SOPs. This file or database shall indicate the SOP/MCP number, version number, date of issuance, title, author, status, organizational division, branch, section, and any historical information regarding past versions.

1.6.20.2.1. SOP Requirements. Each SOP shall be unique for the requirement being defined. The SOP shall document how activities are performed facilitating consistent conformance to technical and quality system requirements and supporting data quality. The term “SOP” may not always be appropriate and terms such as protocols, instructions, worksheets, and laboratory operating

procedures may also be used. For this contract “SOP” will be used. SOPs shall be written with sufficient detail so that someone with limited experience or knowledge of the procedure, but with a basic understanding, can successfully reproduce the procedure when unsupervised. Completed SOP/MCP provided with the QCP and updates. (Reference Appendix 4.3)

1.6.20.2.2. MCP Requirements. The MCP shall include required inspections, timelines for inspections, facility condition assessments and support (IAW AFI 32-1001, Chapter 4) and maintenance to be performed. The Contractor shall perform inspections and maintenance of all applicable equipment IAW the MCP. The MCP shall ensure compliance with all minimum code requirements.

1.6.20.2.3. Frequency of Revisions and Reviews. SOPs/MCPs shall be developed by the Contractor and submitted to R&O for concurrence and approval. SOPs/MCPs need to remain current to be useful. Therefore, whenever procedures are changed, SOPs/MCPs shall be updated and re-approved. SOPs/MCPs shall be also systematically reviewed on an annual basis to ensure that the policies and procedures remain current and appropriate, or to determine whether the SOPs/MCPs are even needed. The review date shall be added to each SOP/MCP that has been reviewed. If an SOP/MCP describes a process that is no longer followed, it shall be withdrawn from the current file and archived. The SOPs/MCPs shall also indicate the individual(s) responsible for ensuring that SOPs/MCPs are current. At the PMR, the contractor shall address updated, archived and reviewed SOPs.

1.6.20.2.4. Checklist. If sequential execution of actions is required or if completed actions require documentation, checklists shall be developed and included within the SOP/MCP.

1.6.20.2.5. SOP/MCP General Format. SOPs/MCPs shall be organized to ensure ease and efficiency in use and to be specific to the requirement. At a minimum, the following shall be included in the SOP/MCP: title page, table of contents, purpose, regulatory information or standards, scope of requirement (procedures), definition of specialized terms, denotation of sequential procedures, equipment needed, personnel qualifications, safety considerations, data and records management, quality control processes, and references.

1.6.20.3. Contractor shall post inspection schedules for all inspectors clearly identifying equipment and requirements being inspected for each week. The inspection schedule shall be updated NLT 12:00 p.m. on the last business day of the week prior to inspection.

1.6.20.4. The Contractor shall submit to Government a Corrective Action Plan included for review and approval in the event that there is any PWS non-compliance issue identified from COR/QA inspection, QC inspection, or technical evaluation and criteria within five working days after request by Government. Contractor shall execute the Corrective Action Plan according to the approved milestone schedule and notify Government when non-compliance issue has been remedied. Corrective Action Plan approach shall be included with the QCP submittal.

1.6.21. Safety Program Management. The Contractor shall follow the most current version of NFPA 70E and AFMAN 91-203 under this contract and conform to the safety requirements established by the Occupational Safety and Health Administration (OSHA). The Contractor shall furnish all required personal protective equipment (PPE) for any hazard.

1.6.21.1. Emergency Procedures. Contractor employees shall follow the direction of Government employees in regards to emergency procedures, e.g. fire, tornado, active shooter, bomb threats. It is the responsibility of the contractor to provide guidance and establish procedures for responding to an emergency for their employees. It is the Contractor's responsibility to account for their employees following an emergency evacuation. Contractor personnel shall participate with Government personnel in all fire and tornado drills at no additional cost to the Government.

1.6.21.2. Voluntary Protection Plan (VPP). TAFB is in the process of pursuing VPP recognition and/or has already been recognized under the Occupational Safety and Health Act (OSHA) VPP. VPP impacts all "applicable Contractors" meaning they are working on TAFB for a minimum of one thousand hours in three months under the same contract.

1.6.21.2.1. It is the Contractor's responsibility to ensure its employees and managers have a comprehensive understanding of VPP as well as full compliance with OSHA requirements. All training records shall be maintained on file and available to the government. The Contractor shall follow all safety and health rules of the installation. Detailed information on VPP is available on the OSHA website at <http://www.osha.gov/dcsp/vpp/index.html>.

1.6.21.2.2. The Contractor shall measure their safety program IAW the OSHA's Voluntary Protection Program as identified in CSP 03-01-002, *Voluntary Protection Programs: Policies and Procedures Manual*, and calculated per Appendix A: *Instructions for Calculating Injury and Illness Rates*. Contractor shall provide their Total Case Incidence Rate (TCIR), their Days Away Restricted and/or Transfer Case Incident Rate (DART) rates, and their OSHA Form 300A annually to the CO and the COR for consolidation and submission as part of the installation's annual VPP *Safety and Health Management Report*. TCIR and DART rates are due by the 15th of January of each year.

1.6.21.3. The Contractor is responsible for compliance with the OSHA (Public Law 91-596). The Contractor shall submit a Safety and Health Plan and corresponding site safety checklist to the CO within 30 workdays after contract award. The Contractor's Health and Safety Plan shall include appropriate measures to ensure the Contractor reacts promptly to investigate, correct, and track alleged safety and health violations and uncontrolled hazards in the Contractor work areas.

1.6.21.3.1. The Contractor shall create and annually update an Asbestos Operating Plan (AOP) IAW AFI 32-1001, *Civil Engineering Operations* as part of the Safety and Health Plan. The plan shall be developed in coordination with 72 ABW/CEIE and Bioenvironmental. The plan shall assign responsibilities, establish inspection and repair capabilities, and provide repair procedures and personnel protection instructions. The plan shall refer to and explain applicable OSHA and EPA rules and provisions for enforcement of AFPD 32-70, *Environmental Considerations in Air Force Programs and Activities*. The AOP shall address organizational structure for carrying out asbestos-related work, personnel training programs, equipment and supply requirements, identification of worker manuals or other written procedures, procedures for interim control measures and extraordinary precautions, procedures for asbestos certification and asbestos disposition, requirements for a special response team, and in-house inspection and requirements for Contractor asbestos analysis and abatement. The Contractor shall identify a representative to act as the Contractor's Base Asbestos Operations Officer.

1.7. CONTRACT INITIATION AND CLOSE-OUT REQUIREMENTS:

1.7.1. Transition-In. To ensure a smooth transition phase between incumbent and incoming Contractors, the incoming Contractor shall begin a transition-in work period prior to the end of the incumbent Contractor's performance period. Contractor shall submit a Transition-In Plan and phase-in schedule to the CO with the initial proposal. Government will have opportunity to review and comment on the plan. Final Transition-In Plan must be approved by the CO at least seven (7) calendar days before start of transition period. The transition period shall not exceed 60 calendar days. The Contractor shall assume responsibility for all functions identified in the PWS on the full contract performance date agreed on the contract. The incoming Contractor shall become familiar with work during the transition-in period. The tasks during the transition-in period shall include but is not limited to items such as obtaining security clearances, processing vehicle registrations, completing training requirements, developing work plans and procedures, and finalizing quality control plans and procedures. The incumbent Contractor is responsible for contract performance during the transition-in period.

1.7.1.1. The Contractor will be allowed access to facilities to familiarize supervisors, key personnel, and staff with equipment, reporting, works scheduling, and procedures. However, such access shall not interfere with the production efforts of incumbent Contractor personnel. To preclude such interference, arrangements for access to Government facilities shall be coordinated at least two workdays beforehand with the COR.

1.7.1.2. Contractor foreman level personnel shall be permitted access to observe operations, work flow, priorities, scheduling, equipment handling, storage, parts, safety, and security.

1.7.1.3. At the completion of the transition-in period the incoming Contractor shall be fully capable of providing all services outlined in the PWS, this includes, but is not limited to, vehicles on site, tools purchased, toolboxes, ladders, and ladder racks installed.

1.7.1.4. A joint inventory of GFE will be performed by a team comprised of the incumbent, incoming Contractors, and Government representative as designated by CO. This will be a one time inventory and Contractor shall sign acknowledgement receipt for all items on the inventory.

1.7.1.5. Contractor employees must possess a favorable background investigation (Tier 1) before being issued a Common Access Card (CAC). Previous favorable background investigations, NAC, NACI or NACLC, can be used as long as there is not a two year break in service. For newly hired contract personnel, once a Tier 1 investigation is submitted to OPM and fingerprint records come back with no record, they can receive a CAC. CAC is required for access to Government computers systems. Airfield and secured facilities requires restricted area badges. See paragraph 1.8.3.5. The process for obtaining CACs includes submitting personal information for each applicant to the Government's Trusted Agent for input into the Contractor Verification System. To avoid delays in starting work, it is imperative that the Contractor, at the earliest possible time prior to contract start date, be proactive in submitting applications for personnel security clearances. Tier 3 investigations for secret clearances are the responsibility of the Contractor's company.

1.7.2. Transition-Out. To ensure a smooth transition-out at the change of work effort from the end of contract, Contractor shall begin a transition period prior to the end of the Contractor's performance period. Contractor shall submit a Transition-Out Plan when requested by the CO.

1.7.2.1. If there is a change in Contractor, the incumbent Contractor shall submit a Transition-Out Plan to provide familiarization, as described in PWS paragraph 1.7.1.1., to the follow-on Contractor and provide clear process requirements for transitioning. During the transition-out familiarization period, the incumbent shall be fully responsible for providing all services outlined in the PWS.

1.7.2.2. In the event the re-competed contract is awarded to other than the incumbent, the incumbent Contractor shall cooperate to the extent required to permit an orderly change over to the selected offeror. With regard to the successor Contractor's access to incumbent employees, a recruitment notice will be allowed to be placed in each facility.

1.7.2.3. In the event the re-competed contract is awarded to other than the incumbent, the incumbent Contractor shall turn over all the existing Government furnished property, operating procedures, and division continuity books.

1.7.2.4. The Contractor shall turn-over all the items listed under this contract in its original electronic file created and/or available formats (i.e. MS Word, MS Excel, MS Access, Oracle, AutoCAD, PDF, etc.) in fully operational form and hard copy (if required).

1.8. GENERAL INFORMATION:

1.8.1. Forms and Publications. The Contractor may obtain the forms and publications expressly required to perform the work in this contract via the internet at Air Force e-Publishing, <http://www.e-publishing.af.mil>. In the event that a Federal form or publication is not available online or access to the site is not granted, Contractor may request CO to provide the publication and support for granting access to the e-publishing site.

1.8.1.1. Directives. Contractor compliance with all applicable directives cited in the performance of this contract shall include all future directives, revisions, and/or supplements. Contractor shall utilize the most current Directives /Publications available in the performance of this contract. Contractor shall be knowledgeable of and comply with all applicable Federal, State, and County, DoD, Air Force, and base regulations, instructions, and requirements for successful execution of this contract. In the event that laws, regulations, Technical Orders, Air Force Instructions, Air Force Materiel Command Instructions, etc. change during the term of this contract, the Contractor is required to comply as such laws or regulations come into effect. The Contractor shall ensure policies and procedures are established that protect the health and safety of employees and the community.

1.8.1.1.1. Contractor shall provide a written evaluation of cost encumbrances if the degree of expense to be disadvantageous and encumber the Contractor financially by implementation of changed directives. The written evaluation shall be submitted with specific backup data/documentation and estimated cost for those changes which influence the Contractor's performance shall be provided to the CO. Government will evaluate the validity of documented data along with proposed cost, and render a decision to approve and/or disapprove contractors

claim for equitable adjustment. Contractor shall not incorporate these publication changes until approved by CO.

1.8.1.1.2. In the event there is a conflict between two or more publications, the Contractor shall provide evaluation along with and necessary backup data to the CO and the COR. The CO will provide resolution of the conflict to the Contractor.

1.8.1.1.3. Contractor shall ensure that all technical orders, regulations, instructions, manuals, pamphlets, and forms are current and available or on order to perform all requirements of this PWS.

1.8.1.1.4. Contractor shall provide an annual list to the COR. The list shall include all technical orders, regulations, instructions, manuals, pamphlets, and forms available or on line. Contractor shall identify the date the publication was added, deleted or changed.

1.8.2. Contractor Employees. The Contractor shall not employ persons for work on this contract if such employee is identified to the Contractor by the CO as a potential threat to the health, safety, security, general well-being, or operational mission of the installation and its population. Where reading, understanding, and discussing safety and environmental warnings are an integral part of a contract employee's duties, that employee must be able to understand, read, write, and speak the English language. The speaking skill is not required where a Contractor employee is hearing or speaking impaired.

1.8.2.1. Contractor employees shall act in a professional manner, present a professional appearance and be easily recognized as Contractor employees with company logo readily visible.

1.8.2.2. The Contractor shall ensure employees meet all applicable local, state, and federal certification and medical requirements to perform assigned BCE tasks and functions as defined in this performance work statement. Additionally, Contractor shall ensure that the following employees have current and valid professional certifications before starting work under this contract:

1.8.2.2.1. Welders shall have a certificate of competence and be upgraded as necessary for critical welding requirements (e.g., steam fitters welding license).

1.8.2.2.2. Employees who supervise or perform pest control operations, independent of direct supervision, shall have a current State or DoD certification IAW DoD Instruction 4150.7, *DoD Pest Management Program* and DoD Measure of Merit #3 for all pesticides and herbicides used or anticipated for use.

1.8.2.2.3. Employees handling asbestos, lead-based paints, residue from existing lead-based paint and hazardous materials shall be certified as required by appropriate Government regulations and standards. Any employees handling friable asbestos must be licensed in accordance with State of Oklahoma and Federal requirements.

1.8.2.2.4. Employees, who maintain, service, repair, or dispose of refrigeration and air conditioning systems containing Chlorofluorocarbon (CFC) and Hydrochlorofluorocarbon

(HCFC) refrigerants shall have proper certification by an Environmental Protection Agency (EPA) approved technician certification program.

1.8.2.2.5. Employees testing cathodic protection systems shall have attended and successfully completed a NACE course for corrosion technicians.

1.8.2.2.6. Employees working in the following trades shall be licensed or certified by the state of Oklahoma in the respective technical trade: elevator mechanics, sheet metal mechanics, fire sprinkler mechanics, refrigeration mechanics, backflow prevention device mechanics, HVAC technicians, natural gas mechanics, plumbers, electricians, alarm technicians, fire alarm technicians, locksmiths, roofers and operators of equipment, plants, or systems.

1.8.2.2.7. Employees operating or performing work on the following systems shall have the following license or certification: boiler operator (Oklahoma State boiler operator license), bridge crane inspector (NACB inspector certification), sanitary and industrial waste system operations (Oklahoma ODEQ operator certification), chiller water plant operator (NASOE certification, 1st and 2nd class), and Testing and Balancing HVAC (NEBB certification).

1.8.2.2.8. Fire alarm technicians shall meet the requirements in UFC 3-601-02, *Operations and Maintenance: Inspection, Testing, and Maintenance of Fire Protection Systems* Personnel Requirements, be trained on Monaco D-21 enhanced radio system, and be familiar with the latest fire automation systems.

1.8.2.2.9. Security alarm technicians shall be trained on Vindicator Security Management and Reporting Terminal (SMART) Systems and be familiar with the latest security automation systems.

1.8.2.2.10. Secret Security Clearance. Contractor employees working in the positions and trades listed below are required to have secret security clearance prior to performing any work in support of this PWS.

1.8.2.2.10.1. The Contract Manager, Alternate Contract Manager, Chief of Operations and Deputy Chief of Operations shall have and maintain a secret security clearance.

1.8.2.2.10.2. Locksmiths assigned to support work on restricted facilities or equipment shall have and maintain a secret security clearance.

1.8.2.2.10.3. Security alarm technicians shall have and maintain a secret security clearance.

1.8.2.3. Contractor employees shall comply with directives pertaining to operation of privately owned vehicles on TAFB per AFMAN 31-116 with Tinker AFB Supplement, *Air Force Motor Vehicle Traffic Supervision*.

1.8.2.4. The Contractor shall furnish in writing to the CO the names and phone numbers of the contract manager and all management and supervisory employees not later than the post-award orientation conference. The CO shall be notified within one workday whenever changes are made to key personnel and an updated list submitted. The on-site contract manager and alternate(s), managers, supervisors and leads are deemed to be key personnel for this contract.

1.8.2.5. Contractor employees must refrain from any private business, professional activity, or from having direct or indirect financial interest which would place them in a position where there is a conflict between their private interests and the public interests of the United States Government, particularly those related to their duties and responsibilities. Even though a technical conflict may not exist, they must avoid even the appearance of such a conflict from a public confidence point of view. Contractor employees shall not engage in any private business, professional activity, or financial transaction which involves the direct or indirect use or the appearance of such use of inside information gained through an Air Force position.

1.8.2.6. Contractor shall remove all debris generated in service of this contract from TAFB IAW all applicable federal, state, and local environmental laws. Contractor shall maintain disposal records clearly detailing that they have met all legal requirements for transportation and tracking of this debris to recycle centers or landfills. Contractor shall maintain the cleanliness and orderliness of all mechanical rooms. Spare parts, equipment, refrigerant cylinders or chairs shall not be stored in mechanical rooms. This responsibility shall not be delegated to the facility managers. After Contractor maintenance and repairs are completed, Contractor shall restore the surface area and landscape to its original condition. Responding Contractor personnel shall assist in the cleanup resulting from RP system failures.

1.8.3. Security Requirements. The Contractor shall ensure that all security requirements necessary to fulfill the terms of this PWS are met at no additional cost to the Government.

1.8.3.1. The Contractor shall complete an AFMC Form 496, Application for AFMC Identification Card, for each employee and sub-contractor's employee of the Contractor requiring access to TAFB. The requests shall be submitted to Pass and ID, (Building 6611 at Gate 1, Air Depot entrance).

1.8.3.2. Contractor ID Badge Requirements. Contractors working on Tinker AFB shall comply with all procedures outlined in TAFBI 31-101, DODIO-2000.16V1_AFI 10-245-O and TAFBP 31-101. OF SPECIAL NOTE, IAW TAFBI 31-101 para 5.3, all contractors/contractor personnel will be assessed a charge of \$50.00 for each badge lost, willfully damaged, or not surrendered to Pass and ID. No charge will be made on a replacement required due to normal wear. Personnel will report to Accounting and Finance, Accounts Receivable Unit and a DD Form 1131, Cash Collection Voucher, will be prepared and presented to Pass and ID prior to issuing replacement identification. Identification will be surrendered to Security Forces personnel upon demand for the purpose of identification, investigation, abuse, misuse, or for any other reason necessary. Civilian and military retirees who conduct commercial business on base must obtain a badge through their place of employment. ALSO OF SPECIAL NOTE, IAW TAFBI 31-101 para 7, all contractors/contractor personnel shall be subject to background checks as deemed necessary.

1.8.3.2.1. The Contractor shall request restricted area badges for employees according to DoDMAN5200.02_AFMAN16-1405, *Air Force Personnel Security Program*.

1.8.3.3. The Contractor shall contact Pass and ID no later than thirty minutes prior to a previously arranged visit to vouch for all visitors to TAFB on Civil Engineering business. Contractor shall provide names of visitors, visitors' organization, dates and duration of visit, locations of visit, and Contractor point of contact name and telephone number.

1.8.3.4. The Contractor shall sign an agreement stipulating the security requirements of this contract as provided for in DoDM5220.22V2_AFMAN 16-1406V2. The following provisions of DoD 5220.22-M, *National Industrial Security Program* shall apply to this contract.

1.8.3.5. The Contractor shall provide sufficient information to obtain favorable Tier 1 investigations for its employees for unescorted entrance to restricted areas. The Contractor shall identify the need and justify to 72ABW/IP requests for Tier 1s on Contractor employees requiring unescorted entry to restricted areas. Contractor access to restricted areas under control of Navy (SCW-1 and subordinate commands) may require an escort depending on force protection measures in place. Final approval authority for unescorted entry to all other restricted areas rests with the Installation Commander. Final approval authority for unescorted entry to restricted areas rests with the Installation Commander.

1.8.3.5.1. Prior to the start of the first operational performance period, Contractor shall ensure that sufficient personnel on duty have appropriate security clearances to meet and maintain requirements specified in this PWS.

1.8.3.5.2. The Contractor is required to comply with all security regulations and directives as identified herein and other security requirements as are shown elsewhere in this contract.

1.8.3.5.3. The Contractor shall conform to the provisions of DoD 5220.22-M for safeguarding classified information and shall provide for obtaining SECRET security clearances for Contractor and sub-contractor employees requiring access to classified information and/or systems. Only those persons who have the proper security clearance and a "need to know" according to the performance of work under this contract shall be given access to classified information. The Contractor shall initiate application for security clearances for personnel upon contract award and not later than sixty calendar days prior to the start of the first operational performance period.

1.8.4. Employee Training. The Contractor shall ensure that Contractor employees retain suitable and adequate current qualifications and proficiencies at no additional cost to the Government.

1.8.4.1. Personnel involved with hazardous waste activities shall be trained IAW AFI 10-2501 with Tinker AFB Supplement, *Air Force Emergency Management (EM) Program*, AFMAN 32-7002, *Environmental Compliance and Pollution Prevention*, and TAFB Instruction 32-7004.

1.8.4.2. The Contractor shall provide training opportunities to their employees for existing systems and to keep them abreast of new technologies as systems evolve on TAFB. These systems may or may not be unique in nature to the industrial processes performed on TAFB. The Contractor shall ensure that personnel executing PdM have competence in maintaining equipment identified by the RCM analysts.

1.8.4.3. The contractor shall provide training for all oil-handling personnel in the operation and maintenance of equipment to prevent discharges; discharge procedure protocols; applicable pollution control laws, rules, and federal, state, and local regulations; general facility maintenance; and the contents of the TAFB SPCC also known as the Tinker AFB Plan 19-2 *Oil and Hazardous Substance Integrated Contingency Plan Emergency Response Action Plan Summary* for Tinker Air Force Base, Oklahoma.

1.8.4.4. Contractor shall ensure all tank operators, maintenance technicians and supervisors complete applicable environmental regulatory training and maintain current certifications required by federal, state, and local regulations.

1.8.4.5. Contractor storage tank maintenance technicians and supervisors shall attend and participate in the annual spill preparedness for response exercise training coordinated by 72 ABW/CEIE with DLA.

1.8.4.6. Contractor shall provide Sexual Assault and Prevention (SAPR), or equivalent training to their employees as required by the Air Force.

1.8.4.7. Contractor shall provide one-time energy awareness training to its employees IAW OC-ALC ISO 15001 requirements.

1.8.5. Hours of Operation. TAFB operational hours and Contractor operations under this contract shall be performed as indicated below:

1.8.5.1. Duty Hours. Normal duty hours at TAFB are Monday through Friday, 0700-1600. The Contractor shall be expected to properly schedule employees and perform work after normal hours to avoid mission impact at no additional cost to the Government.

1.8.5.2. Non-Duty Hours. There are mission situations that require the Contractor to work non-duty hours. These situations are military exercises, contingency operations, severe weather, utility outages, and emergencies. If the Contractor's access to a work area conflicts with an Air Force mission requirement, the Contractor shall reschedule their work to allow for both activities to be completed.

1.8.5.3. 24-Hour Operations. The Contractor shall operate a service call desk, and man as appropriate, the Central Plants and Industrial Wastewater Treatment Plant on a 24-hour-per-day, 7-day-per-week basis regardless of holiday or base-closure days, unless otherwise directed by the Government.

1.8.5.4. Operations on Federal Holidays and Commander Designated Shutdown Days. The Contractor is required to provide 24-hour operations, emergency, and special event services on Commander designated shutdown days and the following holidays: New Year's Day, Martin Luther King Day, Presidents Day, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans Day, Thanksgiving Day, and Christmas Day. If the holiday falls on a Saturday, it is observed on Friday. If the holiday falls on Sunday, it is observed on Monday. Commander designated shutdown days will be announced prior to the start of each CY.

1.8.6. Physical Security. The Contractor shall be responsible for safeguarding all Government property provided for Contractor use. At the close of each work period, Government facilities, property, and materials shall be secured. The Contractor shall complete a 100 percent material inventory on an annual basis.

1.8.6.1. Key Control. The Contractor shall establish and implement methods of ensuring that all keys and key cards turned over to the Contractor shall be managed by the Contractor and are not lost, misplaced, or used by unauthorized persons. The Contractor shall prohibit the use of keys

issued to the Contractor by any persons other than the Contractor's employees. The Contractor shall prohibit the opening of locked areas by Contractor employees to permit entrance of persons other than Contractor's employees engaged in the performance of assigned work in those areas or personnel authorized entrance by the CO.

1.8.7. Fire Prevention and Protection. The Contractor and his employees shall comply with local directives and AFI 91-202, *The US Air Force Mishap Prevention Program*. Disposing of any material on base by open burning is prohibited.

1.8.8. Conservation of Utilities. The Contractor shall be responsible for operating under conditions which prevent the waste of utilities. Contractor shall conserve energy by turning off electrical equipment and lights when not in use for extended periods of time. Contractor shall comply with thermostat settings and set back temperature requirements IAW Tinker AFI 90-1701, *Facility Infrastructure Energy Management*. Contractor shall use appliances and data processing equipment on Tinker AFB, which are Energy Star Compliant. Personal appliances (e.g. coffee makers, refrigerators, and microwaves) shall be consolidated in community designated break areas.

1.8.9. Coordination with Other Government Agencies. The Contractor shall be responsible for day-to-day interface with other Government work agencies to include personnel, transportation, comptroller, legal, family support, finance, and public affairs. Topics for interface include funding sources, RP allocation, engineering design and construction, and fire systems maintenance.

1.8.10. Coordination with Other Maintenance Providers (OMP). Tinker AFB has implemented multiple initiatives, including utility privatization, housing privatization, and various energy savings projects, that have created multiple other maintenance providers. The Contractor shall work cooperatively with any Other Maintenance Provider (OMP), e.g. OG&E, Oklahoma City Water Utility Trust (OCWUT), Balfour Beatty Corporation, or Honeywell Inc., on repair/maintenance/replacement of systems on Tinker AFB. The Contractor shall be the first responder on all service calls. The Contractor shall determine what equipment is involved in the service call. If the service call is due to OMP installed equipment, the Contractor shall contact OMP and they shall make the repairs. After repairs are completed, OMP will contact the Contractor so that the customer can be notified of resolution of the service call. The Points of Demarcation between the OMP installed systems and the remainder of the systems have been determined. OMP installed equipment (boilers, pumps, infrared heaters, etc.) are typically labeled with tags and the extent of the OMP installed piping is shown with pipe labels. The point of demarcation of the electrical system is typically the secondary of the transformer. In an event of a conflict, Government R&O will provide directions on how to proceed.

1.8.10.1. Contractor is responsible for maintaining steam traps at B2210, 2211 and Navy facilities. All other steam traps are maintained by ESPC contractor.

1.8.11. Delivery Information. TAFB has a "Truck Entry Gate" (currently Gate 33), which is located at the corner of 59th Street and Air Depot Blvd (southwest corner of the base). Truck Entry Gate shall be used for all deliveries by truck to this base. (Trucks will not be allowed to gain access through any other gate.) Since your firm's delivery on this order is affected, please advise your delivery carrier to use the gate. This should minimize the impact of your delivery.

1.8.11.1. Deliveries to Building 3001. Contractor is advised that delivery vehicles destined for building 3001 are prohibited from using “Staff Drive”. Delivery vehicles may make deliveries only in designated unloading areas. Since your firm’s delivery may be affected, ensure that your delivery carrier receives proper instructions on delivery/unloading requirements for building 3001. Unloading in designated unloading areas will minimize any inconvenience, and, attendant ramifications, which may accrue, to your delivery / delivery carrier for failure to adhere to this requirement.

1.8.12. Consequences of Contractor’s Failure to Perform Required Services. The Contractor shall perform all of the contract requirements. The Government will inspect and assess Contractor performance in accordance with FAR 52.246-4, INSPECTION OF SERVICES - FIXED PRICE, FAR 52.246-2, INSPECTION OF SUPPLIES - FIXED PRICE, FAR 52.246-12, INSPECTION OF CONSTRUCTION, 52.246-16, RESPONSIBILITY OF SUPPLIES. The Government will require re-performance, withhold payment, or seek other suitable consideration for unsatisfactory or non-performed work. When defects cannot be corrected by re-performance, the Government may reduce the price to reflect the reduced value of services performed. Government reserves the right to perform third party testing at no cost to Contractor for validation of any contractual requirement deemed necessary to ensure compliance with this PWS.

1.8.13. Governing Criteria. Contractor shall abide by the requirements established in this PWS. If there are conflicts between the PWS and any applicable regulations inherent or cited, it is the responsibility of the Contractor to request clarification from Government. Clarifications from Government will be requested in writing and responses kept on file for duration of contract for validation of continual contract performance.

1.8.14. Organizational Conflict of Interest. The following restrictions are applied to this contract to preclude any organizational conflict of interest.

1.8.14.1. The awardee for this requirement shall not provide any supplies, services, or other assistance or support with respect to any of the requirements described in contract no. FA8101-16-D-0001 for Civil Engineer Services-Engineering Management at Tinker AFB.

1.8.14.2. The Government must have independent contractors that can provide supplies or services, without an actual or apparent conflict of interest, on both requirements identified in this provision.

SECTION 2

2. SERVICES SUMMARY.

The Service Summary requirements are summarized into performance objectives that relate directly to mission essential items. The performance threshold briefly describes the minimum acceptable levels of service required for each requirement. These thresholds are critical to mission success. Data and/or documentation validating compliance with respective metric will be submitted to Government within five working days after close of evaluation cycle.

- (a) This is a firm-fixed-price (FFP) contract with a negative performance incentive.
- (b) The Government established contract requirements and minimum performance outcomes. The Government will evaluate the contractor as they perform. Any minimum performance outcome the contractor fails to achieve will result in the contractor's performance incentive being decremented. Therefore, all compensation earned under this clause is subject to the Quality Performance Indicator (QPI) described in paragraph (d).
- (c) In this FFP contract, 8% of all FFP Contract Line Items (CLINs) will be held "at risk" for satisfactory performance. In general, each FFP CLIN will be reduced by 8%, as detailed in the Pricing Matrix. Prior to award and exercise of options IAW FAR 52.217-9, the Government will determine the Common Output Level Standards (COLS) funding level for applicable CLIN. Then, the Government will modify the CLINs to reflect the adjusted unit and QPI prices from the pricing matrix. The QPI funding will be held in CINs X052 and may be earned monthly through satisfactory performance. The contractor may earn a percentage of the performance incentive based on the percentage of QPI earned during the respective month performance takes place. Following is an example of how the Government will calculate the performance incentive to be held "at risk" for satisfactory performance:

EXAMPLE:*

Total Price of FFP CLINs for Base Year: \$ 60,000,000

Total Base Year Performance Compensation (\$60,000,000 x 8%): \$ 4,800,000

Performance Compensation available per month (\$4,800,000/ 12 months): \$ 400,000

* Amounts are notional

- (d) Notwithstanding any other contract clause or any other language in or attached to this contract, the performance incentive earned under this clause is subject to QPI earned. The contractor's performance will be monitored monthly in accordance with (IAW) the PWS section 2.1 Service Summary Table** and the cumulative percentage of earned QPI shall be the final determination of the amount of performance incentive the Government pays the contractor on a monthly basis. The QPI is designed to ensure that performance expectations are achieved and maintained. The QPI reflects the contractor's success in maintaining acceptable minimum measures in metrics and other contract requirements.

**The QPIs are identified and will be applied as listed in the PWS Services Summary Table.

2.1. SERVICES SUMMARY TABLE:

Tinker AFB Civil Engineering Operations Service Contract Quality Performance Indicators (QPI)			
Performance Objective	PWS Reference Number Service Summary #	Performance/Evaluation Criteria or Quality Performance Indicator (QPI)	Corrective Action or Monetary Deduction From CLIN X052 Invoice for Failure To Meet Performance Criteria or QPI
S1 -- Operations Management - Pavements and Entry Control Points (ECPs) - Snow & Ice Removal - Pavements - Sweeping - Building Automation System Program (BAS) (Base-wide) - Unaccompanied Housing - Miscellaneous Requirements - Civil Engineer Emergency and Force Protection Response - Operations Engineering Support - Resource Management	1.1, 1.2, 1.3.1.7, 1.3.3.5, 1.3.6, 1.3.7, 1.3.9, 1.3.10, 1.3.11, 1.4, 1.5, 1.6.21	QPI 1.1: No more than 1 unresolved CAR for failure per quarter to perform PWS requirements or unresolved customer complaint associated with quality of work, measured monthly.	10.0 %
		QPI 1.2: Zero written non-compliance notifications by local, state, or federal regulators concerning environmental or natural resources regulations and permits within the contractor's control, measured monthly. If fined, deduction equal to fine.	5.0%
S2 --Emergency Corrective Maintenance/Work Priority 1 & Scheduled Sustainment Priority 3A thru 3C (Base Wide)	1.1.2, 1.3.3.6, 1.3.3.4, 1.3.3.10, 1.3.2.5, 1.3.3.8, 1.3.8, and 1.3.10	QPI 2.1: Mitigate 99% of Emergency (Priority 1) work within 24 hours of notification and 100% mitigated within 48 hours, measured monthly.	10.0%

Tinker AFB Civil Engineering Operations Service Contract Quality Performance Indicators (QPI)			
Performance Objective	PWS Reference Number Service Summary #	Performance/Evaluation Criteria or Quality Performance Indicator (QPI)	Corrective Action or Monetary Deduction From CLIN X052 Invoice for Failure To Meet Performance Criteria or QPI
- O&M for Exterior Natural Gas Distribution Systems (Base Wide: Work Priority 1, 2, 3 and 4A) - O&M for Flood Gates and Exterior Storm Water Distribution Systems (Base Wide: Priority 1, 2, 3 and 4A) - O&M for Generators (Power Production) (Base Wide: Priority 1, 2, 3 and 4A) - O&M for Pest Management (Base Wide: Priority 1, 2, 3 and 4A) - O&M for Meter and Metering Management (Base Wide: Priority 1, 2, 3 and 4A) - Unaccompanied Housing		QPI 2.2: Complete 95% of all Priority 3A work within 7 calendar days and 99% within 14 calendar days (inclusive of material acquisition time)(date closed – date submitted = calendar days to complete), measured monthly.	10.0%
		QPI 2.3: Complete 93% of all assigned Priority 3B work within 21 calendar days and 99% within 42 calendar days (inclusive of material acquisition time)(date closed – date submitted = calendar days to complete), measured monthly.	7.0%
		QPI 2.4: Complete 85% of all assigned Priority 3C work within 42 calendar days and 97% within 126 calendar days (inclusive of material acquisition time)(date closed – date submitted = calendar days to complete), measured monthly.	5.0%
		QPI 2.5: WIP shall average no greater than 600 total open work requests over a 90 day rolling average and 0 older than 365 days, measured monthly. If at any time the WIP exceeds 600, this QPI may be met by decreasing WIP by 10% monthly until WIP is below 600.	5.0%

Tinker AFB Civil Engineering Operations Service Contract Quality Performance Indicators (QPI)			
Performance Objective	PWS Reference Number Service Summary #	Performance/Evaluation Criteria or Quality Performance Indicator (QPI)	Corrective Action or Monetary Deduction From CLIN X052 Invoice for Failure To Meet Performance Criteria or QPI
S3 -- Scheduled Enhancement Work Priority 4A	1.1.2.2.3	QPI 3: Complete 50% of all assigned Priority 4A manhours within 180 workdays, measured monthly.	10.0%
S4 -- Preventive Maintenance (PM) Priority 2	1.2, 1.3.1, 1.3.2, 1.3.3, and 1.1.3	QPI 4.1: Preventive maintenance shall be executed per R&O approved schedule 80% of the time, measured monthly.	10.0%
		QPI 4.2: Unexecuted preventive maintenance shall be accomplished within the same cycle as scheduled 95% of the time and shall not miss two cycles 100% of the time, measured monthly.	5.0%
S5 -- Repair & Maintenance for Pavements and Fence (Base Wide: Work Priority 1, 2, 3 and 4A)	1.2, 1.3.1.6, 1.3.1.7	QPI 5: 100% Annual inspection performed basewide with associated maintenance requirements report approved by R&O, measured monthly.	4.0%
S6 -- Predictability Based Maintenance Program (PdM) (CSAG)	1.3.5	QPI 6: Zero unscheduled outages and equipment downtime affecting production/mission due to systems maintained by the contractor, measured monthly.	4.0%
S7 -- Work Clearance Request	1.6.12	QPI 7: The number of days to complete line marking for Work Clearance Requests shall be 5 workdays or less, 98% of the time. Measured monthly.	5.0%

Tinker AFB Civil Engineering Operations Service Contract Quality Performance Indicators (QPI)			
Performance Objective	PWS Reference Number Service Summary #	Performance/Evaluation Criteria or Quality Performance Indicator (QPI)	Corrective Action or Monetary Deduction From CLIN X052 Invoice for Failure To Meet Performance Criteria or QPI
S8 -- Deliverables and Supporting documents/reports and Submittals	Appendix 4.3	QPI 8: 95% of submittals and deliverables due by prescribed delivery date with 100% being no more than 5 working days late. (Appendix 4.3). Measured monthly.	5.0%
S9 -- Quality Control Inspection	1.6.20	QPI 9: 100% of Corrective Action plans received and approved by CO by prescribed date. Measured monthly.	5.0%
		Total Deduction Possible	100%

*Note: Government's preferred method of surveillance and per PWS paragraph 1.5.1.1 (Records Management) will be by Government's performance monitors review and inspection of records which have been developed and maintained by the Contractor to assess Contractor's performance. Additionally, performance monitors will use their developed records and independent inspections to validate Contractor assessment.

**Unexecuted requirements shall not be continuously carried over. The remaining requirement below 100%, which were not executed for a given performance period shall be performed or corrected prior to the end of next measurement period.

2.2. GOVERNMENT SURVEILLANCE. Contractor performance will be inspected to determine if it meets the contract standards. A variety of surveillance methods may be used.

2.2.1. Government Quality Assurance. The COR will evaluate the Contractor's performance through inspections. The inspection may include inspection of the Contractor's Quality Control Inspection records, Quality Performance Indicators described in Section 2 of this PWS, deliverables, and/or performing independent inspection. The COR may inspect as part of the quality assurance program. The number of inspections may be increased because of repeated failures, quality control inspection results and/or because of repeated valid customer complaints. Likewise, the Government may decrease the number of quality assurance inspections if performance dictates. The COR may inspect the work performed or being performed by shop personnel by making unannounced and/or scheduled visits. The COR may request sub-contractor presence during these meetings. The subcontractor shall be available on site within two hours' notice if in the local area and by appointment if subcontractor is not.

2.2.1.1. Any action taken by the CO as a result of surveillance will be according to the terms of this contract. Any matter concerning a change to the scope, prices, terms or conditions of this contract shall be referred to the CO and not to the COR.

2.2.2. Government Observations. The COR will perform inspections to ensure Contractor compliance with the PWS and will record the results of inspection, noting the date and time of inspection. The Government will perform inspection of completed and work in progress covered under this PWS. This includes checking hard copy and/or electronic data. The Contractor is required to provide the Government access to all hard copy and electronic stored data. If inspection indicates unacceptable performance, the COR or designee will notify the Contractor and the CO of the deficiencies for correction. The Contractor shall be given reasonable time after notification to correct the unacceptable performance if such correction is possible. The length of time allowed to correct the problem will depend upon the requirement and the deficiency, and the Contractor shall notify the COR of the time needed for correction. The COR will document minor nonconformances and observations on the COR certification form. The COR may document contract nonconformances (critical, major or minor) or unresolved customer complaints using a Corrective Action Request (CAR). CARs shall be returned to the originator complete with corrective action plan (CAP), planned start date and planned completion date within 5 working days from the date of notification, unless directed otherwise by the CO. Delinquent or unresolved CARs will affect Contractor's QPI rating. CAPs shall be based on the root cause of the nonconformance and shall include both a description of the suggested correction to eliminate the noted finding and the action(s) taken to prevent the likelihood of recurrence. Specific actions will be taken to determine if other areas are impacted by the nonconformity. Upon CAP completion date, originator shall perform a verification inspection and document results on the CAR document. Upon successful completion of a verification inspection the originator shall recommend closure of CAR. If a verification inspection fails, the CAR will be considered unresolved until a successful verification inspection is accomplished.

SECTION 3

3. GOVERNMENT FURNISHED PROPERTY AND SERVICES. The Government will provide the Government Furnished Property and Services listed herein and in the PWS Section 4 to support Civil Engineering services at TAFB, Oklahoma. The Contractor shall: conform to the provisions of appropriate AF guidance for safeguarding all classifications of Government Furnished Property contained herein; ensure all classifications of Government Furnished Property are secured at the close of each workday; develop and establish procedures for securing Government Furnished Property provided under this contract.

Note: The Contractor shall assume all costs related to utilizing GFP such as payment for all transportation, installation, repair or rehabilitation costs.

3.1. GOVERNMENT FURNISHED PROPERTY (GFP). GFP identified in PWS Section 4 is being furnished on an “As Is” basis with the provision that the Government will not repair or replace the GFP during the performance of this contract, except as provided in paragraph 3.1.3. The Contractor shall continue to be responsible for contract performance. The Contractor may repair the GFP furnished on an “As Is” basis except as identified in paragraph 3.1.5. Such repair (including all costs associated with repair and transportation) shall be at the Contractor’s expense and shall not affect the title of the Government. Once the property has reached its maximum life, usually determined as needing repairs in excess of the replacement cost or needing repairs so frequently that it interferes with the successful accomplishment of services under the contract, the Contractor shall be responsible for replacing such property at the Contractor’s expense with title remaining with the Contractor. For disposition of GFP Furnished on an “As Is” Basis, see PWS paragraph 3.1.10, Plant Clearance. Contractor owned equipment shall be clearly marked to distinguish from Government owned.

Note: The exception to “AS IS” property approved by the government. Contractors GFP Custodian will provide a copy of the purchase receipt to the government representative, COR upon receiving a purchase receipt. The government will provide a sample receipt package to the contractors GFP Custodian. GFP custodian will record the acquisition cost to the inventory. Property such as Found On Base (FOB) per the MICT, the government will provide the acquisition cost (A/C) to the contractors GFP custodian for inventory accountability in accordance with Base Supplies, recording the acquisition cost, such as the R14, and the Air Force Equipment Management System (AFEMS) for government property GFP accountability. The acquisition cost (A/C), does not depreciate or change and follows the property to DRMO.

3.1.1. RP Furnished As Is. The Government will furnish and make available RP listed in PWS Section 4 to the Contractor to perform contracted services. RP has been inspected for compliance with OSHA regulations IAW AFMAN 91-203, *Air Force Occupational Safety Fire and Health Standards*. Currently, there are no hazards for which workarounds have been established. However, the Contractor shall comply with any workarounds identified and implemented as a result of future inspections. When the identification of any hazardous condition occurs, it does not warrant or guarantee that no other possible hazards exist, or that the workaround procedures established will be adequate to meet the responsibilities of the Contractor. Compliance with

OSHA regulations and other applicable laws and regulations for the protection of employees is exclusively the obligation of the Contractor, and the Government will assume no liability or responsibility for the Contractor's compliance or noncompliance with such requirements. Prior to any RP modifications performed by the Contractor, at the Contractor's expense, the Contractor shall give the CO documentation describing in detail the modification requested. No alterations to the RP shall be made without an approved Service Request and specific written permission from the CO and the BCE's Office. However, in the case of alterations necessary for OSHA and AFOSH compliance, such permission shall not be unreasonably withheld. The Contractor shall return the RP to the Government in the same condition as received, fair wear and tear and approved modifications excepted. Government furnished RP shall be used only for the performance of this contract.

3.1.2. Government Furnished Plant Equipment (GFPE). The Government will provide the Contractor the equipment listed in PWS Section 4. This GFPE shall be managed IAW the provisions of the applicable Government Property clauses of this contract and this PWS. When applicable, GFPE shall also be managed IAW the provisions of Air Force Manual (AFMAN) 23-110, *USAF Supply Manual*, V2, Part 2, for Base Supply Non-CA/CRL Account Items. The procedures specified in AFMAN 23-110, V2, Part 2, are in addition to those required by the Government Property clauses of this contract and this PWS. If the provisions of AFMAN 23-110, V2, Part 2, conflict with provisions of the Government Property clauses of this contract and this PWS, the Government Property clauses and this PWS shall take precedence.

3.1.3. Contractor Constructed Facilities. Snow and Ice operational equipment is required to be stored in an enclosed facility to be conveyed from previous Contractor. The Contractor will be responsible for maintenance on the building and road for the life of the contract.

3.1.3.1. At the end of the contract as directed by the CO, the contractor must remove the facility or leave it in place at no cost. If directed, the contractor shall remove the facility and restore the site no later than sixty days after the expiration or termination of the contract. If left in place, the Contracting Officer may choose whether it becomes property of the Government or is to be removed by the Government. If the Contracting Officer elects for it to be removed, the Contractor shall pay the Government for any sum that is expended in removal of the building and restoration of the site.

3.1.4. Contractor Purchased Equipment to Replace Existing GFP. The Contractor will receive funding for the purchase of Government owned equipment that supports this contract. Title to all equipment purchased by the Contractor for which the Contractor is entitled to be reimbursed as a direct item of cost under this contract shall pass to and vests in the Government upon the Contractor's receipt of such equipment. The equipment will then be considered GFP and applicable to paragraph 3.1. A listing of potential equipment to be replaced is in Appendix 4.7. All purchase of replacement equipment will require BCE and CO approval prior to purchase.

3.1.5. GFP Base Supply Items (R14, EAID, CA/CRL Account). The Government will provide the Contractor the GFP base supply CA/CRL items listed PWS Section 4. GFP base supply CA/CRL items shall be managed IAW the provisions of AFMAN 23-110, *USAF Supply Manual*, V2, Part 2. GFP base supply CA/CRL items are not being furnished as is; therefore, the Government will repair or replace the GFP base supply CA/CRL items only when, due to fair

wear and tear, the items are no longer serviceable, and are still required to perform the contract. The Contractor shall submit requests for additional, repair, or replacement GFP base supply CA/CRL items on AF Form 601, *Equipment Action Request*. The Contractor shall submit such requests through the COR for approval by the BCE, the Item Manager, and the CO for approval. Upon AF Form 601 approval, the Contractor shall obtain the base supply CA/CRL items through the Standard Base Supply System (SBSS) using operating funds provided by the Government for that purpose. Based on the approved AF Form 601 and receipt of items, the CO will process a bilateral contract modification for the additional or replaced and removed GFP.

3.1.6. Retired GFP. Contractor shall prepare all necessary documents (forms, equipment list etc.) to retire existing government equipment identified as DRMO (See Appendix 4.7.). Contractor shall perform actual turn-in of the identified equipment per paragraph 3.1.10, Plant Clearance.

3.1.7. Contractor Furnished Equipment. Contractor shall provide, own/lease and maintain all equipment to meet the mission requirements. Snow removal equipment shall be available prior to the first snow season. CSAG ramp equipment used in previous years is shown in Appendix 4.7.

3.1.8. Physical Inventory. The Contractor shall conduct a physical inventory of Government Furnished Property as follows:

3.1.8.1. Phase-In Joint Inventory.

3.1.8.1.1. No later than 10 work days after the Transition Period start date, the Contractor, incumbent Contractor and the COR shall begin the joint inventory of all GFP listed in Section 4. No later than 45 calendar days after the Transition Period start date the joint inventory shall be completed. During the joint inventory, the Contractor and the COR shall jointly determine and document the condition (suitable or unsuitable) of all GFP listed in Section 4.

3.1.8.1.2. If the Contractor does not participate in the inventory, the Contractor shall accept as accurate the listing and stated condition of Government Furnished Property provided by the Government (signed by the COR).

3.1.8.1.3. Within 20 workdays after completion of the inventory, the Contractor shall provide the CO the inventory list(s) of the final accepted GFP items signed by the Contractor and the COR. The final accepted GFP inventory list(s) shall identify all missing GFP and the condition of all the GFP. The inventory list(s) shall be used for the DD Form 1149 (*Requisition and Invoice/Shipping Document*) *In-Place Transfer*. As a minimum, the DD Form 1149 shall be signed by the Contractor Representative (who is authorized to bind the company), the COR, and the CO. The inventory list(s) used to accomplish the DD Form 1149 *In-Place Transfer* will be incorporated as the updated GFP appendix by bilateral contract modification.

3.1.8.2. Joint Inventory.

3.1.8.2.1. No later than 30 workdays prior to the start of any option period, the Contractor and the COR shall account for all GFP through joint inventories. Contractor and the Government Property COR shall complete a joint inventory accounting for 50 percent of the “As Is” GFP annually, resulting in a 100 percent inventory of all “As Is” GFP biennial (every two years). For other GFP (buildings and material), the Contractor and Government Property COR shall complete a joint

inventory accounting for 100 percent of the GFP annually. Within twenty workdays after completion of the inventory, the Contractor shall provide to the CO the inventory list(s) signed by the Contractor and the COR.

3.1.8.2.2. The inventory list(s) shall be used to update the DD Form 1149, *In-Place Transfer*. As a minimum, the DD Form 1149 shall be signed by the Contractor Representative (who is authorized to bind the company), the COR, and the CO. The inventory list(s) used to accomplish the DD Form 1149 will be incorporated as the updated GFP appendix by bilateral contract modification.

3.1.8.3. Phase-Out Joint Inventory.

3.1.8.3.1. All GFP in need of maintenance (e.g., PM, calibration) shall be maintained by the incumbent Contractor before the final joint inventory is completed. All maintenance not performed by the Contractor shall be done at the Government's option and at the incumbent Contractor's expense.

3.1.8.3.2. No later than thirty workdays prior to the end of the last performance period, the Contractor and the COR shall complete a joint inventory (100 percent) of all GFP. During the joint inventory, the incumbent Contractor and the COR shall jointly determine and document the condition of all GFP.

3.1.8.3.3. The incumbent Contractor shall resolve any discrepancies between the joint inventory results and the official Government records and provide in writing to the CO a reconciled GFP listing within twenty workdays after completion of the inventory. The inventory list(s) shall be used to update the DD Form 1149 *In-Place Transfer*. As a minimum, the DD Form 1149 shall be signed by the Contractor Representative (who is authorized to bind the company), the COR, and the CO.

3.1.8.3.4. Missing GFP not found during the Phase-Out Joint Inventory and not reconciled by the Contractor's property management documentation shall be submitted to the CO under Loss, Damage, or Destruction (LDD) procedures.

3.1.9. Inventory Lists Including Disposed GFP. The Phase-In Inventory List(s), the Annual Inventory List(s), and the Phase-Out Inventory List(s) shall include the disposition of the GFP replaced or removed from use in performance of this contract. Disposition of H condition GFP, custodian must DRMO H condition property within six months of any yearly inventory cycle and provide the H condition inventory list to the COR and CO, GFP not DRMO after identified has H condition from the yearly inventory within a six months period for DRMO. GFP with H condition status includes active or inactive (retired), staged, stored, in-transit, transferred, declared excess, awaiting disposition, or dispositioned property. **NOTE:** Contractor owned H condition property is included as well.

3.1.10. Loss, Damage, or Destruction (LDD). Except for reasonable wear and tear to GFP or for GFP properly consumed in performing this contract, the Contractor shall be liable for LDD (including theft) to GFP. Compensation shall be effected either by reduced amounts owed to the Contractor or by direct payment as determined by the CO. The amount of compensation due the Government by the Contractor shall be the "intrinsic value" of the property, as determined by the CO, i.e., the amount of compensation due to the Government may range from scrap value, salvage

value, repair cost, or replacement cost, as determined by degree of damage or loss and the continuing need of the Government for that property. Immediate notification (within one workday) of an LDD incident or accident shall be made to the CO and COR via electronic mail (E-mail). A detailed written report as determined acceptable by the Government PA shall be submitted to the CO and COR no later than seven (7) workdays after discovery of the LDD to GFP.

3.1.11. Plant Clearance. When GFP is determined to be beyond economical repair or not suitable for use, the Contractor shall obtain verification and certification by the COR and shall initially report it to the Government Plant Clearance Officer (PLCO). When GFP is identified as excess during the contract, at completion, or termination of the contract, the excess GFP shall be reported to the Government PLCO. Disposition of GFP shall meet the requirements of the Government Property clause, other contractual requirements, or direction from the CO through the Government PLCO. Disposition instructions may include Defense Reutilization and Marketing Office (DRMO) disposal.

3.1.12. Property Control System (PCS). The Contractor shall prepare and present a Property Control System (written procedures) to the CO within thirty workdays after contract award. The Contractor's procedures shall be prepared IAW FAR 45.5 and shall meet the requirements of FAR 45.5 and shall be organized with Functions and Functional Segments IAW DoDI 4161.02, *Accountability and Management of Government Contract Property*, and *DoD Guidebook for Contract Property Administration*. The approved security procedures discussed in DoDI 4162.02 shall be incorporated as a component of the Contractor's PCS. The Contractor shall submit changes to the approved PCS to the CO for review and approval prior to implementation of such changes.

3.2. GOVERNMENT FURNISHED SERVICES: The Government will furnish the following services:

3.2.1. Security Forces. The Government will provide general on-base security service. Security Forces telephone numbers are 911 for emergencies, 734-2000 for security police office, and 734-3737 for non-emergency calls.

3.2.2. Fire and Emergency Services. The Government will provide general on-base fire protection services. The Contractor shall comply with fire prevention rules and instructions enforced by the TAFB Fire Prevention Branch, 72 ABW/CEFP. Call 911 for emergencies. For routine fire prevention matters, call 734-3981. For routine calls to dispatch, call 734-7964.

3.2.3. Emergency Medical Service. The Government will provide 24-hour on-base state certified paramedic level emergency response and patient transport services for Contractor personnel who are injured or become seriously ill while on TAFB. The telephone number is 911 for emergencies.

NOTE: When calling 911 from a cell phone the caller will state they are reporting an emergency on TAFB, location and nature of the emergency. Some 911 cell phone calls may be picked up by a 911 center in the local community, however the call can be quickly transferred to the TAFB 911 center.

3.2.4. Utilities. The Government will furnish utility services. These utilities include natural gas, electricity, water, and sewer for the sole purpose of accomplishing this contract. If the Contractor requires additional utility services, it shall be the Contractor's responsibility to provide them. Contractor shall use due care and diligence in efforts to conserve utilities to reduce utility costs.

3.2.5. Postal. The Government will provide on-base mail distribution and USPS and contracted mail carrier services only for official Government mail required under terms of this contract.

3.2.6. Telephone. The Government will provide telephone service consisting of Class 3 and Class 1 service (to include DSN service). The Contractor shall ensure that the Government provided telephone usage is limited to only official Government business related to the performance of this contract. The Contractor shall furnish their own telephone service provided by local commercial carrier for their use in matters other than official Government business pertaining to this contract.

3.2.6.1. Class "1" Line. A Class 1 line, places no restrictions on the calls you make. In other words, you can make long distance calls and call off-base.

3.2.6.2. Class "2" Line. A Class 2 line, allows you to call off-base but not make long distance calls.

3.2.6.3. Class "3" Line. A Class 3 line, allows you to only make calls within TAFB.

3.2.7. Custodial Services. The Government will provide custodial services limited to the extent provided in the Base Custodial Contract(s) for the Government provided facilities.

3.2.8. Refuse Collection. The Government will provide refuse and recycling services limited to the extent provided in the Base Refuse Contract(s) for the Government provided facilities.

3.2.9. Insect And Rodent Control. The Contractor shall provide this service.

3.2.10. Grounds Maintenance. The Government will provide grounds maintenance services limited to the extent provided in the Base Grounds Maintenance Contract(s) for the Government provided facilities.

3.2.11. RP Maintenance. The Contractor shall provide this service.

3.2.12. On-Base Transportation. The Contractor shall provide this service for employees.

3.2.13. Local Area Network (LAN). The Government will provide LAN access and support. Contractor shall comply with all security requirements pertaining to LAN usage and shall ensure that these services are utilized only for official contract matters pertaining to this contract.

3.2.13.1. User/Workstation Support Services. Government will provide Helpdesk and computer workstation support services, to include but not limited to network access, software installation, application support, and access to CE applications (ACES, CMMS, etc.). Elevated network rights and privileges are restricted to individuals designated as administrators by Base Communications Directorate.

3.2.13.2. Information Assurance Web-based Training. Government will provide required training for network access through AF or DoD web-based training system.

3.2.13.3. File Server Services. Government will provide server space on an “as needed” basis, depending on availability.

3.2.13.4. Printer Services. Government will provide printer network services.

3.2.14. Base Supply Equipment Custodian Training. The Contractor shall designate equipment custodians using OC-ALC Form 446 (*Establishment/Update of Equipment Custodial Records*) and provide this information to the CO no later than five (5) workdays after contract award. As a minimum, the Contractor shall have one Primary and one Alternate Equipment Custodian. These individuals shall accomplish Supply Training (Blocks I and III, and an annual Block III Refresher). TAFB provides this training at no cost to the Contractor performing Government contracts on-base. The Contractor shall provide the signed and dated OC-ALC Form 446 *Equipment Custodian Training* completion documentation to the CO, no later than five (5) workdays after the training completion date. Signed and Dated OC-ALC Form 446 documentation showing Equipment Custodian designations changes, training completions, and transferring custodial records back to the Government shall be provided to the CO no later than five (5) workdays after each event.

3.2.15. Base Support. Base support shall be provided by the Government to the Contractor in accordance with this provision.

3.2.15.1. Base support includes Government-controlled working space, material, equipment, services (including automatic data processing), or other support (excluding use of the Defense Switched Network (DSN)) which the Government determines can be made available at, or through, any Air Force installation where this contract shall be performed. All Government property in the possession of the Contractor, provided through the base support provision, shall be used and managed in accordance with the Government Property clauses.

3.2.15.2. Unless otherwise stipulated in the contract schedule, support shall be provided on a no-charge-for-use basis and the value shall be a part of the Government's contract consideration.

3.2.15.3. The Contractor agrees to immediately report (with a copy to the cognizant CAO) inadequacies, defective Government-Furnished Property (GFP), or non-availability of support stipulated by the contract schedule, together with a recommended plan for obtaining the required support. Facilities shall not be purchased under this provision. Additionally, the Contractor (or authorized representative) shall not purchase, or otherwise furnish any base support requirement provided by the provision (or authorize others to do so), without prior written approval of the Contracting Officer regarding the price, terms, and conditions of the proposed purchase, or approval of other arrangements.

3.2.15.4. Following are installations where base support will be provided: Tinker AFB, OK.

3.2.15.5. The Government support to be furnished under this contract is IAW Performance Work Statement (PWS). Because of the nature and location(s) of the work performed, the value of such

equipment is undeterminable. The Contractor shall not incur any cost resulting from nonsupport prior to Contracting Officer concurrence in accordance with this provision.