TEXAS AIR NATIONAL GUARD

147TH ATTACK WING

Ellington Field JRB

Houston, Texas

STATEMENT OF WORK

FWJH262710

Installation of New 3-Phase Primary Underground Electrical Service

01 April 2026

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1. APPLICABLE CODES AND REFERENCES (CURRENT EDITIONS):

1.1. Major codes and standards, which are applicable to all Air National Guard (ANG) projects, are indicated below. This listing is not intended to be all-inclusive, and it is the Contractor's responsibility to adhere to all applicable codes and standards. Where there is a conflict between the SOW and building codes, the most stringent shall apply. When codes are in conflict, the most stringent shall apply. Applicable codes and standards can be found in The Whole Building Design Guide website by the National Institute of Building Sciences (https://www.wbdg.org/).

1.1.1. The Contractor must abide by all the applicable regulations, publications, manuals, and local policies and procedures:

Unified Facilities Criteria (UFC): https://www.wbdg.org/ffc/dod/unified-facilities-criteria-ufc and https://www.wbdg.org/fc/ang

Unified Facilities Guide Specifications (UFGS): http://www.wbdg.org/ffc/dod/unified-facilities-guide-specifications-ufgs

UFC 1-200-01 DoD Building Code

UFC 1-200-02 High Performance and Sustainable Building Requirements

UFC 3-101-01 Architecture

UFC 3-110-03 Roofing

UFC 3-120-10 Interior Design

UFC 3-190-06 Protective Coatings and Paints

UFC 3-201-01 Civil Engineering

UFC 3-250-01 Pavement Design for Roads and Parking Areas

UFC 3-410-01 Heating, Ventilating, and Air Conditioning Systems

UFC 3-520-01 Interior Electrical Systems

UFC 3-530-01 Interior and Exterior Lighting Systems

UFC 3-550-01 Exterior Electrical Power Distribution

UFC 3-570-01 Cathodic Protection

UFC 3-575-01 Lightning and Static Electricity Protection Systems

UFC 3-580-01 Telecommunications Interior Infrastructure Planning and Design

UFC 3-600-01 Fire Protection Engineering for Facilities

UFC 4-010-01 DoD Minimum Antiterrorism Standards for Buildings

UFC 4-010-06 Cybersecurity of Facility-Related Control Systems

UFC 4-020-01 DoD Security Engineering Facilities Planning Manual

UFC 4-215-01 Armories and Arms Rooms

UFC 4-211-01 Aircraft Maintenance Hangars

Air National Guard Handbook 32-1084 Facility Space Standards

ANGETL 24-02 Air National Guard Design Objectives and Procedures (Tab C)

ANGETL 12-05 Design and Construction Handbook

ANGETL 12-06 Design Meetings and Presentations

ANGETL 12-07 Preparation of Project Documentation Package

ANGETL 15-01 Air National Guard Design Policy

ANGETL 15-01-01 Sustainable Design, Development and Resource Conservation

ANGETL 15-01-02 SKIF & ATFP Guidance

ANGETL 15-01-03 Fire Protection Design Guidance

ANGETL 15-01-04 Mechanical Engineering

ANGETL 15-01-05 Electrical & Communication Engineering

ANGETL 15-01-06 Roof Design Guidance

DODI 6055.06 DoD Fire and Emergency Services (F&Es) Program

DAFI 32-2001 Fire Emergency Services Program

AFMAN 32-1062 Electrical Systems, Power Plants and Generators

DESR 6055.09_AFMAN 91-201 Explosive Safety Standards

DAFMAN 91-203 Air Force Occupational Safety, Fire and Health Standards

TO 1-1-3 Inspection and Repair of Aircraft Integral Tanks and Fuel Cells

TO 00-25-172 Ground Servicing of Aircraft and Static Grounding/Bonding

Architectural Barriers Act (ABA)

American Concrete Institute (ACI)

American National Standards Institute Standards (ANSI)

American Society of Civil Engineers (ASCE)

ANSI/ASCE Minimum Design Loads for Buildings and Other Structures

ACI 318 Building Code Requirements for Reinforced Concrete

ACI 530 Building Code Requirements for Masonry Structures

AISC Manual of Steel Construction

American Society for Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE)

American Society for Testing and Materials (ASTM)

Building Officials and Code Administrators (BOCA)

ICD 705 v1.5.1

Electronic Industries Association (EIA)

Engineering Technical Letters (ETL)

International Building Code (IBC)

Institute of Electrical and Electronics Engineers (IEE)

Illuminating Engineering Society Lighting Handbook (IES)

International Fire Code (IFC)

International Mechanical Code (IMC)

International Plumbing Code (IPC)

National Fire Protection Association (NFPA)

NFPA 1550 *Standard for Emergency Responder Health and Safety* reference for justification purposes.

NFPA 70: National Electric Code (NEC)

NFPA 72 International Fire Alarm Code

NFPA 101 Life Safety Code

NFPA 780 Standard for the Installation of Lightning Protection Systems

National Roofing Contractors Association (NRCA)

National Electrical Code (NEC)

National Electrical Manufacturer's Association (NEMA)

National Electrical Safety Code (NESC)

Occupational Safety and Health Administration (OSHA)

Sheet metal & Air Conditioning Contractors National Association (SMACNA)

Technical Instructions (TIs)

Technical manuals (TMs)

Underwriter's Laboratories (UL)

2. BACKGROUND

Ellington Field currently has a failed underground primary electrical service between the existing tap box and transformer supplying power to the mobile shooting range. As a result of this failure, the range is non-operational (down) and unable to support mission requirements. This project is

required to restore reliable electrical service to the mobile shooting range and return the facility to full operational capability in support of training and mission readiness.

The Contractor shall provide all labor, materials, equipment, supervision, and incidentals required to replace the failed underground primary electrical service between the existing tap box and transformer serving the mobile shooting range.

DESCRIPTION OF WORK

2.1. The Contractor shall perform the following work:

2.1.1. Prior to any excavation, trenching or boring, the Contractor shall contact 811 and verify all existing utility locations. The Contractor assumes full responsibility for any damage to existing facilities or infrastructure resulting from construction activities.
2.1.2. Install new 4-inch PVC conduit via directional bore in accordance with NEC, UFC, and applicable UFGS requirements.
2.1.3. Furnish and install three (3) new medium-voltage primary cables in the new conduit system.
2.1.4. Perform all terminations at the existing tap box and transformer in accordance with manufacturer requirements and applicable standards.
2.1.5. Coordinate all required electrical outages with the Government.
2.1.6. Implement Lockout/Tagout (LOTO) procedures in accordance with NFPA 70E and OSHA requirements.
2.1.7. Perform all required testing in accordance with UFC, NETA, and applicable electrical standards.
2.1.8. Submit complete testing and commissioning reports for Government review and approval prior to final acceptance.
2.1.9. Restore all disturbed areas to original or better condition, including concrete, pavement, and landscaping.
2.1.10. Contractor responsible for disposal of material.
2.1.11. All work and planned outages shall be coordinated with the 147 Civil Engineer Squadron (CES) a minimum of two (2) weeks prior to commencement.
2.1.12. Final inspection will include representatives from 147 CES, Fire Department, Safety, Communications, Security Forces, and Environmental. All deficiencies shall be corrected prior to project closeout.

3. SPACE TILE, FUNCTION AND SPECIAL REQUIREMENTS

3.1. Architectural: No Special Requirement (NSR)

3.2. Structural: No Special Requirement (NSR)

3.3. Mechanical: No Special Requirement (NSR)

3.4. Electrical: No Special Requirement (NSR)

3.5. Communications: No Special Requirement (NSR)

3.6. Fire Protection: No Special Requirement (NSR)

3.7. Equipment: Reference No Special Requirement (NSR)

3.8. Security: Compliance with 5105.21 Volume 2 (NSR)

3.9. Technical Order (TO): No Special Requirement (NSR)

3.10. Environmental: Reference No Special Requirement (NSR)

3.11. Structural Interior Design: No Special Requirement (NSR)

4. HOURS OF OPERATION/DAILY WORK HOURS

The government's regular hours are from 6:30 to 1530 Monday, and 6:30 to 5:00 Tuesday through Friday, except Federal Holidays as listed below and other days specifically designated by the Contracting Officer. There may be certain days that are deemed down days for Air National Guard members approved by the installation commander that are not listed below. These days will be conveyed to the contractor's Project Manager 72 hours in advance.

Date	Holiday
January 01	New Year's Day
3rd Monday in Jan.	Birthday of Martin Luther King, Jr.
3rd Monday in Feb.	Washington's Birthday
Last Monday in May	Memorial Day
June 19th	Juneteenth National Independence Day
July 4th	Independence Day
1st Monday in Sept.	Labor Day
2nd Monday in Oct.	Columbus Day
November 11th	Veterans Day
4th Thursday in Nov.	Thanksgiving Day
December 25th	Christmas Day

5. GOVERNMENT FURNISHED ITEMS

5.1. The 147th Civil Engineer Squadron will provide the contractor access to existing engineering plans, drawings, diagrams, aerial photographs, digitized map files, etc., to facilitate evaluation of the site(s), as needed or requested for reference only.

5.2. Arrange with the COR for the following as needed:

5.2.1. Personnel identification badges, vehicle passes, and/or entry permits.

5.2.2. As required, provide escorts for contractor personnel working in secured areas.

6. NOTIFICATION OF PROBLEMS

The contractor shall report to the COR any evidence of potential problems at the time the condition is first noticed.

7. QUALITY CONTROL & QUALITY ASSURANCE

All test results shall be submitted to the Government and approved prior to final acceptance

Testing, inspection, and acceptance shall comply with the latest applicable standards, including but not limited to:

- UFC 1-200-01
- UFC 3-501-01 Electrical Engineering
- UFC 3-550-01 Exterior Electrical Power Distribution
- UFGS 33 71 02 Underground Electrical Distribution
- UFGS 26 05 19 Conductors and Cables
- UFGS 26 08 00 Commissioning
- NFPA 70 (NEC)
- NFPA 70E
- IEEE C2 (NESC)
- ANSI/NETA ATS
- OSHA 29 CFR 1926 Subpart K
- EM 385-1-1
- AFMAN 32-1063
- AFI 32-1065

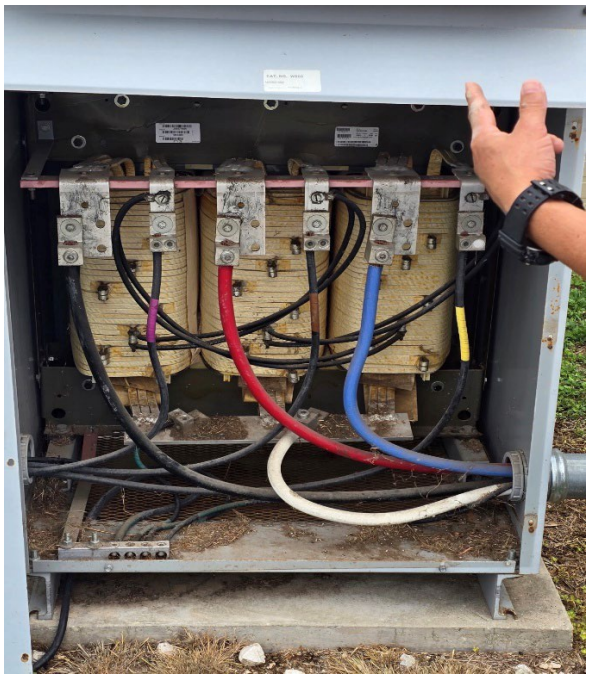
8. ATTACHMENTS

8.1. Attachment 1 – Existing Electrical (1)
8.2. Attachment 2 – Existing Electrical (2)
8.3. Attachment 3 – Existing Electrical (3)
8.4. Attachment 4 – Electrical Panel Inside (1)

Attachment 1 – Existing Electrical (1)

Attachment 2 – Existing Electrical (2)

Attachment 3 – Existing Electrical (3)



Attachment 4 – Electrical Panel Inside (1)