



Scope of Work for Mechanical in B2912, 2913

DPW Project Number: 44538
Fort Moore Building Number: 2912, 2913
Period of Performance: 360
Job Walk: TBD
Proposal Due: TBD
Bid Process: TBD

Submissions by DPW

1. Scope of work
2. Conceptual design drawings
3. Construction specifications
4. As-built PDF/DWG/DGN

Submittals from Contractor

1. Project Schedule
2. Phase Plan
3. 65% Design, 95% Design, 100% Final Design
4. QC Plan
5. Accident Prevention Plan (APP)
6. Materials/Equipment
7. Design Drawings/As-Built Drawings
8. Specifications
9. Testing/Adjusting/Balancing/Commissioning Reports
10. CD with all Record Document Submittal Documentation

Summary of Work

The project involves a comprehensive upgrade of the existing HVAC control systems in each building focusing on:

- Replacing existing controllers with Distech controls
- Implementing BACnet communication protocol
- Upgrading the existing Jace controller to a Jace 9000 series
- Replace outdoor condensing units

Scope of Work for B2912, B2913

1. Mechanical New Work
 - a. Size provide and install non-proprietary open JACE 9000 series. Total number of used device/points shall not exceed 80% of installed JACE9000 series capacity.
 - b. Any new JACE install shall be support by uninterrupted power supply (UPS) and be protected with (TSS).
 - c. Replace all LonWorks field controllers with BACnet compatible controllers.



- d. Replace all network-communicating sensors that utilize LonWorks protocol.
- e. All low voltage control wiring shall be sealed in conduit.
- f. Provide all necessary trade work in support of mechanical.
- g. Replace all thermostats with BACnet compatible models equipped with:
 - 1. Lockable Touch screen interface thermostats to be set and locked to a range of 68°F-76°F.
 - 2. On-board dehumidification control strategy enabled (set to 50%)
 - 3. CO2 Sensor
 - 4. PIR sensors w/occupancy functions enabled
 - 5. Include all available control points, to include, but not limited to temp, room humidity points, CO2, etc. in UMCS graphics.
 - 6. BACnet MS/TP
- h. Disconnect and Remove existing outdoor condensing units.
- i. Size, provide, and install new condensing units equivalent to the new unit at B2914 (Carrier Gemini 7.5 ton) and install on existing pad.
- j. Perform all work in support of changing out condensing units.
- k. All new thermostats, controllers, equipment points, and existing control points shall be brought onto the UMCS and have their graphics designed per Fort Moore's programming and graphics standards. All Controls and Graphics integration shall be brought onto the building JACE, and finally at the Niagara 4 (N4) server. All Controls and Graphics must be made visible/controllable at Fort Moore's UMCS Building 497 through the N4 server. The final "master system integration" (From Bldg. JACE to N4 Server) will require a DoD 8570 IAT Level II credentialed person with access to the server. Coordinate with NEC for CAT5 drops, ports, IP/mac address, and switch installations.
- l. Perform test and balance of entire system and produce report.

2. Liquidated Damages

- a. In the event of delay (caused by contractor only) in project completion, Replace HVAC Controls, B2912, B2913, the contractor shall pay liquidated damages to government in the amount of \$1,203.61 for the total LD Rate/Day.

CODES AND STANDARDS:

All work shall be completed in accordance with the most recent editions of all applicable codes and standards published at the time of contract award including, but not limited to:

United Facilities Criteria (UFC)

General

- 1. UFC 1-200-01 DoD Building Code, with Change 1
- 2. UFC 1-200-02 High Performance and Sustainable Building Requirements
- 3. UFC 1-300-01 Criteria Format Standard
- 4. UFC 1-300-02 Unified Facilities Guide Specifications (UFGS) Format Standard, with Change 3
- 5. UFC 1-300-07A Design Build Technical Requirements
- 6. UFC 1-300-08 Criteria for Transfer and Acceptance of DoD Real Property, with Change 2



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

Mechanical

1. UFC 3-400-02 Design: Engineering Weather Data
2. UFC 3-401-01 Mechanical Engineering, with Change 1
3. UFC 3-410-01 Heating, Ventilating, and Air Conditioning Systems, with Change 8
4. UFC 3-410-02 Direct Digital Control for HVAC and Other Building Control Systems, with Change 2
5. UFC 3-430-01FA Heating and Cooling Distribution Systems

United Facilities Guide Specifications (UFGS)

DIVISION 01 - GENERAL REQUIREMENTS

1. UFGS 01 42 00 SOURCES FOR REFERENCE PUBLICATIONS

DIVISION 02 - EXISTING CONDITIONS

1. UFGS 02 41 00 DEMOLITION AND DECONSTRUCTION

DIVISION 23 - HEATING, VENTILATING, AND AIR CONDITIONING

1. UFGS 23 01 30.41 HVAC System Cleaning
2. UFGS 23 03 00.00 20 Basic Mechanical Materials and Methods
3. UFGS 23 05 48.00 40 Vibration and Seismic Controls for HVAC Piping and Equipment
4. UFGS 23 05 48.19 [Seismic] Bracing for HVAC
5. UFGS 23 05 93 Testing, Adjusting, and Balancing for HVAC
6. UFGS 23 07 00 Thermal Insulation for Mechanical Systems
7. UFGS 23 08 00.00 20 Commissioning of Mechanical [and Plumbing] Systems
8. UFGS 23 08 01.00 20 Testing Industrial Ventilation Systems
9. UFGS 23 09 00 Instrumentation and Control for HVAC
10. UFGS 23 09 13 Instrumentation and Control Devices for HVAC
11. UFGS 23 09 13.34 40 Control Valves, Self-Contained
12. UFGS 23 09 23.02 BACnet Direct Digital Control for HVAC and Other Building Control Systems
13. UFGS 23 09 33.00 40 Electric and Electronic Control System for HVAC
14. UFGS 23 09 53.00 20 Space Temperature Control Systems
15. UFGS 23 09 93 Sequences of Operation for HVAC Control

International Code Council (ICC)

1. 2024 International Building Code (IBC)
2. 2024 International Existing Building Code (IEBC)
3. 2024 International Mechanical Code (IMC)

Miscellaneous Codes and Requirements

1. American with Disabilities Act (ADA) Compliance Guide
2. Fort Moore Installation Design Guide
3. Fort Moore UMCS and N4 Control System (Graphics and Programming and Standard), most current.
4. Fort Moore BAS Design Guide, most current.
5. Fort Moore NEC Standards, ISP-OSP TTP, Dec 2022 v1.6
6. Fort Moore Installation Planning Standard, Feb 2016
7. Fort Moore Fire Protection Requirements, effective 11 May 2023
8. Fort Moore Environmental considerations as listed on the FB-144R.
9. Georgia Environmental Protection Division rules, laws, and codes.
10. Fort Moore Environmental Management Division (EMD) Standards. If there is a conflict with the EMD Standards, the more stringent standard shall be used.



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Replace HVAC Controls, Maintenance
Facility BLDG's 2912, 2913
5/13/2025
Prepared by Cole Harris

11. Comply with all Local, State, and Federal National Pollutant Discharge Elimination System (NPDES) laws and guidelines.
12. United States Army Corps of Engineers, Safety and Health Requirements Manual EM 385-1. Applicable edition at award.
13. TM 111 Guidance provided in U.S. Army Training and Doctrine Command (TRADOC) Force Protection Program (FPP): Unified Facilities Criteria (UFC) for buildings.
14. Compliance with Buy American Act (BAA). Provide BAA letter/Mfrs. Certificate of Compliance with all required material submittals.
15. ANSI/ASME A13.1 (Pipe Identification Standard)
16. ASHRAE - Standard 90.1-2022 - Energy Standard for Buildings Except Low-Rise Residential Buildings
17. ASHRAE 62.1/62.2 - 2022
18. SMACNA - HVAC Duct Construction Standards - Metal and Flexible, 4th Edition (2021)
19. Local utility specifications
20. All state and local standards and environmental codes and regulations
21. Manufacturer's written instructions

Implied specifications: When specifications are not furnished the standards of work shall be in accordance with industry standards.