

SCOPE OF WORK: The contractor shall provide all material, labor, equipment, and supervision required to accomplish the following: Demo three (3) rooftop air conditioners and four (4) make up air units. Install three (3) new replacement rooftop air conditioners and four (4), replacement make up air units. Replace HVAC equipment controls. Replace electrical service disconnect at each unit being replaced. Reconnect all electrical supply and control connections. Provide factory authorized start up and operation report.

General description - The contractor shall replace three (3) rooftop air conditioners, four (4) make-up air units, and their respective electrical disconnect switches as specified. The mechanical equipment is located on the rooftop of M455, Camp Johnson, Dining Facility.

Detailed requirements and specifications

- The contractor shall:

MECHANICAL WORK:

Demolition:

1. Demo and properly dispose of three (3) rooftop air conditioning units identified as
 - a. Model# SSHCC254HV10A2AD1A01GT83 Serial# J92C70577,
 - b. Model# SSHCC254HV10A2AD1A01GT83 Serial# J92C70578
 - c. Model# SSHCC254HV10A2AD1A01GT83 Serial# J92C70576
 * labeled RTU-1, 2, & 3.
2. Demo and properly dispose of four (4) make-up air units identified as MAU 1, 2, 3 & 4
3. Demo and properly dispose of controls for RTUs 1, 2, & 3 and MAUs 1, 2, 3, & 4

Installation:

1. The contractor shall furnish and install three new commercial rooftop air conditioning units and curb adaptors as necessary in order to adapt the new unit to the existing duct system. The equipment to be installed shall meet the following specifications:
 - DX Cooling with steam heat
 - 300,000 BTU (25 ton) capacity
 - 460 volt, 60 hertz, 3 phase
 - Single Point Power Source
 - High heat capacity 1 1/2 IN valve
 - Barometric relief
 - 0 - 100% Economizer
 - Comparative Enthalpy Control
 - 2.00 IN Spring Isolators
 - 900 RPM Supply Fan
 - Constant Volume Control
 - Programmable Zone Sensor
 - Low Ambient Control
 - Start-Up Assistance and 1st Year labor Warranty
 - 2nd - 5th Year Replacement Compressor Warranty

Each unit shall be equipped with the necessary controls to operate the unit from a zone sensor, including constant volume microprocessor unit control module, a microprocessor compressor controller and a unit mounted Human Interface Panel.

The microprocessor boards shall be stand-alone DDC controls not dependent on communications with an onsite PC or building management network. The microprocessors shall be so equipped as to provide diagnostics, indicating that all hardware, software, and interconnecting wiring are in

proper operating condition. All components shall be protected to prevent interference from RFI and voltage transients. All microprocessor memory shall be non-volatile, requiring no battery or capacitive backup, while maintaining all data. The zone sensor shall be automatic and manual changeover.

The contractor shall provide and install:

2. The contractor shall furnish and install four (4) new commercial Make-up Air Units and adapter curbs to adapt the new units to the existing duct systems. The equipment to be installed shall meet the following specifications:
 - Intake Module (Pos #1)
 - Solid double wall construction with 2 IN insulation.
 - Back damper - horizontal opposed blades
 - Inlet hood back
 - Pleated media filters rated at MERV 8
 - Horizontal Coil (Pos #2)
 - Horizontal coil module
 - Insulation 2IN solid double wall
 - RH - Galvanized drain pan
 - Type NS Steam Heating Coil
 - .031 copper tubes with Aluminum fins
 - 1 IN tube diameter
 - Low Ambient Control/Coil Freeze Protection
 - Galvanized steel coil casing
 - ARI rated and certified
 - Fan (Pos #3)
 - Single Point Power Connection
 - Right Hand Door
 - Spring Isolation
 - Heavy Duty Bearings w/

- extended grease lines
- Horizontal inlet to supply fan
- Fan discharge, bottom front
- 15 horsepower MAU- 1 & 2
- 10 horsepower MAU- 3 & 4
- Voltage 460/3/60
- T-frame standard motor

ELECTRICAL WORK:

Demolition:

1. Demo and dispose of existing electrical safety switches located at units labeled, RTU-1, 2, & 3.
2. Demo and dispose of existing electrical safety switches located at units labeled MAU-1, 2, 3, & 4

Construction:

Furnish, install and reconnect electrical safety switches for three (3) new Rooftop Air Conditioning units and four (4) new Makeup Air Units located on the rooftop.

Specifications:

All electrical safety switches shall be UL approved, weatherproof, and provide over-current protection sized correctly for the unit to which it is connected.

Direct Mounting of electrical service disconnect equipment to cabinet of air conditioners or makeup air units is not permitted.

GENERAL REQUIREMENTS: None Identified

SUBMITTALS:

1. The contractor shall provide mechanical and electrical equipment

- submittals for Government approval prior to contract award.
2. The contractor shall provide a proposed work schedule for Government approval prior to contract award.
3. Provide installation, start up and maintenance manuals for new equipment.
4. Complete and submit a MAXIMO Equipment up-date form for each piece of newly installed equipment.
5. Provide manufacturer specifications for proposed chiller with quote.
6. Provide Factory start-up report.

SPECIAL SCHEDULING AND ACCESS:

1. This work must be performed with the facility in operation and must be closely co-ordinated to reduce downtime and avoid interruptions to food services operations.
2. All schedule changes shall be approved by the DICC's representative. Food Service POC is Mickey Hatfield @ 910-451-7561.

SPECIAL CONDITIONS: None Identified

HAZARDOUS MATERIALS: None Identified

ENVIRONMENTAL REQUIREMENTS: None Identified

TAGS	RTU1,2,&3
DESIGN FLOW(CFM)	10,000
COOLING EDB (F)	80
COOLING EWB (F)	67
AMBIENT TEMP (F)	95
LEAVING COIL DB (F)	59.67
LEAVING COIL WB (F)	57.65
GROSS TOTAL CAPACITY (MBH)	296.81
GROSS SENSIBLE CAPACITY (MBH)	224.83
OUTPUT HTG CAPACITY (MBH)	489.61
HEATING EAT (F)	70
HEATING LAT (F)	115.15
SUPPLY DUCT STATIC PRESSURE (IN H2O)	.05
RETURN DUCT STATIC PRESSURE (IN H2O)	.25
TOTAL STATIC PRESSURE (IN H2O)	1.67

TAGS	MAU-1	MAU-2	MAU-3	MAU-4
FAN				
POSITION	#3	#3	#3	#3
FAN AIRFLOW (CFM)	12420	12770	11940	10095
ESP (IN H2O)	1.20	1.20	1.00	1.00
TSP (IN H2O)	2.84	2.91	2.56	2.26
ACTUAL HORSEPOWER (HP)	11.329	12.056	9.884	6.867
MOTOR HORSEPOWER	15	15	10	10
HORIZONTAL COIL				
POSITION	#2	#2	#2	#2
SYSTEM TYPE	STEAM	STEAM	STEAM	STEAM
EDB (F)	23	23	23	23
LDB (F)	90	90	90	90
STEAM PRESSURE (PSIG)	15	15	15	15
TOTAL CAPACITY (MBH)	902.45	927.89	867.58	733.52
CONDENSATE FLOW RATE	952.50	979.24	915.81	774.65
AIR PD (IN H2O)	.35	.37	.32	.23

BLDG #M455 SHEET 2 OF 2
 CONTRACT# N40085-09B-0522
 PROJECT# 09-0522
 DWGPT MILL
 TITLE: REPLACEMENT OF ROOFTOP AC AND MAUS
 USMC CAMP LEIBUNG
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