

STATEMENT OF WORK

A. GENERAL INFORMATION

1. Title of Project: 632-17-102 Refurbish Operating Room Air-Handling Unit

VAMC Northport is requesting technical and cost proposals for rehabilitation of the air handling unit (AHU) serving the Operating Rooms (ORs) at the Northport medical center. The unit is identified as Air Handling Unit #3 and is located in Building 200.

2. Background:

The current AHU was installed in 1971 and is in need of an overhaul to ensure continued performance and reliability. An independent report by FPM Engineering, states that the degradation is mostly superficial and can be addressed with an epoxy-type coating commercially available to recondition the interior of the air handler floor pans and a multi-acrylic wall and ceiling coating. The air handler system is functional and the goal is to extend its usable service life through this project.

3. Scope of Work:

a. General

- i. The Contractor shall isolate the air handling system from the ORs with an air tight barrier at the discharge connection of the unit. The contractor shall install a negative air system with HEPA filtration to ensure the AHU and associated mechanical room is under negative pressure (a minimum of .1" W.G.) at all times. The contractor shall comply with all infection control requirements in the execution or work.
- ii. The Contractor shall provide a work plan and detailed schedule for the execution of work for approval a minimum of 2 weeks prior to commencing work.
- iii. All hot work shall be subject to hot work permits and interim life safety requirements. A hot work permit shall be requested by the contractor and issued from the VA Fire Department prior to any hot work.

b. Rehabilitation work:

- i. Fabricate and install an inlet hood or louvers designed to mitigate entrance of rain and moisture. If a hood is used it shall be 14 gauge galvanized steel and designed to accommodate the air flow without causing additional pressure drop. The hood shall be equipped with a bird screen and properly supported to prevent deflection from snow,

rain and airflow. Free opening shall be 10% larger than the existing opening.

- ii. Remove turning vanes at air intake duct transition and properly dispose of them.
- iii. Remove, replace and commission new air shut-off louver with actuator and confirm operation after installation with interlock to fan motor. The air shut-off damper and actuator are custom manufacture and will need to be field verified and measured.
- iv. Remove Five (5) access doors, supply and install new doors complete with frames. Doors shall be insulated with view windows a minimum of two hinges and two cam style latches. The access doors must be field measured and fabricated to match existing openings with replacement gaskets.
- v. Remove existing deteriorated lighting and install new water tight fluorescent lighting in all compartments. Lighting installation shall include light fixture, rigid conduit from the light to the exterior of the AHU housing and all associated wiring to power the lights.
- vi. Prepare the interior surfaces of the unit (floor, ceiling and walls) for new coatings as per the manufacturer's recommendations. The preparation shall include removal of all rust, debris, oil/grease and coatings to provide a stable base for the coating. Bid shall include patching of any holes or weak spots in the housing (base bid on 25 patches each roughly 6 inch in diameter). Patches shall be 12 gauge galvanized steel secured and sealed to the housing to prevent air leak and provide adequate integrity to accommodate the pressure in the unit. Any repair work to the floor system shall be accomplished with a minimum of 4,000 psi mortar or epoxy grout. Concrete surface shall be cleaned and scarified to ensure good adhesion.
- vii. Any compromised structural members identified during removal shall be brought to the attention of the COR for action. The bid shall include cost for removal, replacement of 4 walls and 2 ceiling stiffeners (2.5"x2.5"x3/16" galvanized angle).
- viii. Supply and Install a composite 3-Layer Coating System, on the floor and 6 inches up the walls.
 - 1. The base coat shall consist of a composite material that levels and grades the surface to promote drainage in accordance with ASHRAE 62 standards. The base coat shall completely cover the floor and six inches up the wall. In the humidification

section and other sections prone to liquid accumulation the floor shall be built up and sloped to the drain in the housing.

2. The second layer shall meet NFPA 90A fire code and international mechanical code (IMC) for fire protection and smoke protection in HVAC units. This layer is applied atop the base coat.
 3. The third and final layer applied on top the base coat and fire rated coat, shall include an antimicrobial top coat that fulfills EPA registration requirements and NYSDEC reporting for Legionella in the control of microbial growth as approved for HVAC equipment.
 4. Installation shall be accomplished to manufacturer's installation guidelines using manufacturer authorized/certified distributors/installers.
 5. Weekend, Holiday, Evening and Night (WHEN) hour tour work will be necessary to limit interruptions to function and scheduling of the operating rooms.
 6. Additional Specifications:
 - a. Thickness of Finished Application: 1/4" or thicker for structural integrity
 - b. Flame Spread Index: 25 without continued progressive combustion
 - c. Smoke Developed Index: 30
 - d. Pull Off Strength: 855psi
 - e. Crosshatch Test: 5b (No Failure)
 - f. Volatile Emissions: Negligible VOCs
 - g. Odors: Very Low Odor
 - h. Cure Time: 4 Hours or less before restarting air handling unit
 - i. Active Antimicrobial: EPA approved for HVAC use
 - j. Color: White or Gray
- ix. Supply and Install a poly-acrylate copolymer emulsion coating to the floors and walls. The coating shall be fungicidal, EPA registered, antimicrobial coating.
1. Complying with ASTM E84 burn Characteristics
 - a. Flame spread – 15
 - b. smoke development - 5
 2. NFPA 90A and 90B 25/50 requirements
 3. The coating shall be 30 mil NFPA 90A and 90B 25/50 requirements. The coating shall be 30 mil.
- x. Provide optional price for new secondary filters. Filters shall be MERV 15 V bank to match the existing bag filter flow (500 FPM) and pressure drop (0.5" WC initial, with output 1.5"WC at output; total pressure drop across filter bank is 1.0" WC). Filters shall have integral

gaskets and sized to fit existing openings. The existing filter frames in the AHU shall be updated to provide a mechanism to secure the units in place.

4. Performance Period:

The contractor shall complete all work within 60 calendar days after Notice to Proceed (NTP).