

Statement of Work
Expand Bio-Med Server Room
667-12-100

The contractor shall supply all materials, labor, equipment and supervision to renovate walls, windows, doors, ceilings, HVAC system, power circuits and add security measures related to the Bio-medical computer server room, located on the basement East wing of Overton Brooks VAMC, Shreveport, LA. Work shall be in accordance with the applicable federal, state and local code, conform to VA Security Handbook 0730/2, Appendix B, VA standards, guidelines, statement of work, drawings, specifications and manufacturer's recommendations.

Work includes, but is not limited to removing old fan coil unit, and replacing with new dual DX type HVAC system; installing computer fiber data patch panels and run a 6 pair multimode fiber cable, inside 1 inch interduct back to switch closet in 1E97 above ceiling and mark at 30 foot intervals; remove doors, walls sections and rebuilding to form a new space designated per drawings. Install cable tray system around perimeter of server room BE13; Install new electric service panel, breakers and surface mounted disconnects, receptacles, conduit and electrical raceway in server room BE13. Install emergency computer power shut-off switch at doorway with cover to prevent accidental activation; install duress alarm button with cover and tie into Hirsh system made resettable by key switch only; install PermAlert or equal water detection systems and program into existing Hirsch system and Johnson Controls. Install card readers on both sides of entrance door and electromagnetic style door locking system with numeric key pad and program into existing Hirsch system. Install welded stainless steel security screen over windows and install solid core, wooden security door and hardware on room BE13, hinged on inside with a single motion egress. Install security locks on hardened ceiling hatches. Contractor shall repair the floors, plastered ceilings, walls, texture and paint surfaces to match existing. Contractor shall use approved fire caulk at all penetrations to include smoke and fire barriers.

General Construction:

Refer to Physical Security Requirements in Appendix B, Sections A,C,D,E & K for pertinent information.

- a. Remove existing entry door frame assembly on room BE13, and replace with 42" solid core wood door and frame assembly, with hinges facing inside of room. Install "BEST" style cylinder and 7 pin, E keyway core assembly in door.
- b. Install 48" frame cased opening between rooms BE12 and BE13A.
- c. Remove door assembly and wall sections between rooms BE13 and BE13B per drawings; box out and finish transition between ceiling heights and repair floors and finish out ceiling as necessary.
- d. Install security locks on ceiling hatches.
- e. Remove BE13A door and frame assembly, and install new metal stud and gypsum board wall in place of door opening, texture and paint to match.
- f. Install 304 stainless steel 0.7mm diameter mesh and painted steel framed security screen on windows in room BE13B .
- g. Repair floors, walls, ceilings, texture and paint final space to match.

HVAC:

Refer to Physical Security Requirements in Appendix B, for pertinent information

- b. Demolish existing fan coil unit, piping and controls in room BE13.
- c. Contractor shall provide all necessary electrical, piping, valves, insulation, controls, etc as required to install and support a fully functional system.
- a. Install two (2) 3-ton DX cooling heat pump split system wall mounted units in room BE13. Units shall be Daikin indoor unit model FTXS36HVJU and condensing unit model RXS36HVJU or prior approved equal. Units shall have variable speed compressors and electronic expansion valves.
- b. Install labeled wall mounted thermostat for each unit to operate separately. Install a space temperature sensor in room. Tie space temperature sensor into existing controller at location to be determined at pre-bid site visit. All control cables shall be plenum rated and in a cable tray or installed in $\frac{3}{4}$ inch conduit. Map sensor(s) into existing controls building automation system (BAS) for monitoring and control at boiler plant.
- c. Install a separate wall mounted local only temperature & humidity sensor with digital readout panel in room.
- d. Install all DX copper pipe and pipe insulation per VA's specifications. Provide submittal for any UL fire stopping assemblies as required penetrating fire barrier walls. All interior HVAC piping shall be installed above ceiling or in approved fir down.
- e. Install fiberglass insulated copper condensate drain pipe (ASTM B88, type L) and connect to nearest existing drain line. Ensure proper slope for drain pipe.
- f. All pipes including refrigerant piping, electrical and controls shall be strapped and attached properly.
- g. Install condensing units outside of room, above windows on fabricated grating system. Modify existing grates by adding steel plate with supports to provide mounting base for condensing units. Condensing units shall be installed per manufacturer's recommendation and bolted down to plates. Plate shall be welded in place. Touchup primer and paint any new plates, disturbed areas and/or new welds to match surrounding grates.

- h. Provide all electrical for the inside units and outside condensing units.

Electrical:

Refer to Physical Security Requirements in Appendix B, Sections D,E,J,Q & R for pertinent information

- a. Install conduit, 250 amp breaker and copper conductors from "emergency power panel" NEEQ2 in room BE97, through crawl space, to feed new 225 amp service panel with a 20 circuit capacity (minimum), and disconnect in BE13. Contractor shall verify load requirements for disconnects and service panel per NEC requirements. See drawings for approximate location.
- b. Install surface mounted 30 amp, twist lock receptacles and 20 amp, 4 plex receptacles in a surface mounted, wiremold style raceway conduit, with boxes, covers, and copper conductors around perimeter of server room and tie into new panel and mark accordingly. Each 30 amp receptacle shall be on independent circuit.
- c. Install safety power, push/pull shut off switch, with covers near entrance door of server room BE13 and tie into new panel.
- d. Install emergency duress switch with cover and make key resettable only and wire into police monitoring system.
- e. Install PermAert, FluidWatch model FW25 flood water detections system, or equal and tie into Hirsch and Johnson controls systems and program for proper monitoring at boiler plant.
- f. Install new 6 pair multimode fiber optic cable to computer termination patch panel in room BE13 back to switch in room 1E97 in the ceiling, inside of interduct, marking fiber, cable and ports to identify for proper connection on both ends into panels with 12 foot service loop. Use ST type female connections.
- g. Install circuits, disconnects and conduit to HVAC systems and label equipment per specs.
- h. Label new service panel with identifying feed per VA specs and identify all circuits inside of service panel.
- i. Install new card readers (both sides), key pads and electromagnetic door locking device on main access door of BE13 and wire into existing Hirsch system and program for proper functionality.

Submittals:

All items submitted must meet requirements set forth in the Physical Security Guide and Appendix B

1. Door and frame assembly
2. Door hardware
3. "BEST" type Cylinder and Core assembly
4. Security locks for ceiling hatches
5. Window Security Screening
6. Electromagnet locking system
7. Card readers and key pads
8. Steel Grating for condensing units
9. All HVAC System components
10. Electric service panel
11. Breakers
12. Disconnects
13. Switches
14. Receptacles
15. Wiremold style raceway system
16. Emergency power, kill switch system
17. Keyed duress switch system
18. Flood/Water detection system
19. Fiber Optic termination patch panels and ST connectors
20. 6 pair multimode fiber optic cabling