May 09, 2019 P-213

Mr. Chad Charles Town of Vienna, Town Hall 127 Center Street, South Vienna, VA 22180

Ref: Controls Replacement

Mr. Charles,

This proposal is for the replacement of a twenty-four (24) VAV controllers for the terminal units, two (2) controllers for control/status monitoring of the hot/chilled water plant, nine (9) controllers for control/status monitoring of existing air handling units, one (1) new ABB frequency drive for the cooling tower fan, and furnishing a workstation desktop. These replacement controllers and programming will provide a complete direct digital control building automation system (BAS) to provide an operating HVAC system. The controls and frequency drive were destroyed during a recent storm.

PROPOSAL

We will provide materials and labor to perform the following:

- Disconnect, remove and dispose of exiting failed controllers and frequency drive.
- 2. Provide and install a new ABB model ACH550 7.5 hp 240 volt 3 phase frequency drive with NEMA 3R enclosure, keypad, manual speed control, motor overload protection, EMI/RFI filters, BACnet, Siemens FLN, JCI FLN, Modbus all resident protocols, maintenance and diagnostic assistants, real time clock with time, day & date and 30 character H-O-A multi-lingual display.
- 3. Drive to be set to proper parameters for cooling tower.
- 4. Provide and install a BAS workstation desktop with one (1) Honeywell WEBs JACE 8000 master controller capable of up to 25 devises or 2500 points and one (1) software license upgrade to add 25 additional devices to the WEB-8025 controller. This master controller will be programmed with a graphical user interface to allow access for monitoring and override purposes. The programming will include user levels of access (as defined by customer), point and click interface, dynamic date retrieval and graphics of the HVAC system. Graphics will include floorplan overview page with associated equipment tags and space temperatures for rapid viewing and individual equipment pages with more detailed operating data.
- 5. Provide and install twenty-four (24) Honeywell Stryker VAV controllers with 4 universal inputs, 2 analog and 2 digital outputs, on board pressure sensor, integrated damper actuator, wall mounted thermostat and duct mounted supply temperature sensor. These will replace the controllers on the existing terminal units.
- 6. Provide and install two (2) Honeywell Spyder programmable controllers with 6 universal and 4 digital inputs, 3 analog and 8 digital outputs, and replacement of temperature sensors. These controllers are for the Hot and Chilled Water Plant.

- 7. Provide and install nine (9) Honeywell Spyder programmable controllers with 6 universal and 4 digital inputs, 3 analog and 8 digital outputs and replacement of temperature sensors. These controllers are for the air handling units.
- 8. Controllers to be reprogrammed for each type of equipment to match existing programming.
- 9. Programming and controllers to be tested for proper operation.
- 10. Program associated control points for trending and alarm functions.
- 11. All work related debris to be removed from jobsite.
- 12. Work will be done during regular hours of 7:00AM and 5:00PM Mon.-Fri. **Warranty:** 1 year parts and workmanship

TOTAL PRICE: \$58,255.00

Master Controller: Parts \$6,357.00

Labor \$5,018.00

Plant Controllers: Parts \$4,064.00

Labor \$6,530.00

Air Handling Units: Parts \$7,486.00

Labor \$6,419.00

Terminal Units: Parts \$ 11,107.00

Labor \$6,577.00

Tower Frequency Drive: Parts \$ 4,017.00

Labor \$680.00

Payment to be made as follows: A 50% deposit is due upon acceptance of this proposal with the balance due upon job completion. A service charge of 1 ½ % per month (annual percentage rate of 18%) will be added monthly on invoices unpaid 30 days after billing. Proposal may be withdrawn if not accepted in thirty (30) days.

Submitted by: Steve Ritterpusch Business Development	Read and accep	Read and accepted by:	
	Signature	Date	
	Print		