

WOODBURY COUNTY BOARD OF SUPERVISORS AGENDA ITEM(S) REQUEST FORM

#10b

Date: 3/07/2018

Weekly Agenda Date: 3/13/2018

ELECTED OFFICIAL / DEPARTMENT HEAD / CITIZEN: Kenny Schmitz

WORDING FOR AGENDA ITEM:

Trosper Hoyt- HVAC Systems

ACTION REQUIRED:

Approve Ordinance

Approve Resolution

Approve Motion

Public Hearing

Other: Informational

Attachments

EXECUTIVE SUMMARY:

Various areas in the Trosper Hoyt building are either inoperable, do not have the capability to be controlled, or not able to be viewed to determine how systems are operating.

There are four separate operating control systems that do not interface with one another. Each system is trying to control their own areas while not communicating with any other to know what the rest of the building is doing.

Repairs are needed to address failed systems.

BACKGROUND:

Install programming control points on chiller and boilers.

Replace valves and actuators, temperature sensors, damper actuators, with electronic controls to 5 Air Handling Units and tie into front end computer system.

Install Variable Frequency drives and motors (2) on AHU to replace vortex damper and allow variable duct pressure regulation.

Install a chilled water loop control valve on one AHU that currently has no control valve whatsoever (not sure why?).

There are 9 Variable Air Volume boxes serving areas that are not able to be controlled. This would install 9 electronic hot water reheat valves/ controls to these units.

AHUs 474-1 & 474-2 require actuators and discharge air sensors for nine zones.

Re-control 2 hot water converters with electronic valve control.

FINANCIAL IMPACT:

CIP= B13-17

Star Controls= \$98,700.00

Plumbing, Electrical, & Insulating = \$17,000.00 (estimate)

TOTAL = \$115,700.00

IF THERE IS A CONTRACT INVOLVED IN THE AGENDA ITEM, HAS THE CONTRACT BEEN SUBMITTED AT LEAST ONE WEEK PRIOR AND ANSWERED WITH A REVIEW BY THE COUNTY ATTORNEY'S OFFICE?

Yes No

RECOMMENDATION:

Building Services requests authorization and approval to make necessary equipment upgrades and repairs to the Trospers Hoyt HVAC systems in areas as described.

ACTION REQUIRED / PROPOSED MOTION:

Motion to approve repairs and upgrades per Star Control quote in the amount of \$115,700.00.



February 26, 2018

To: Woodbury County Building Services
401 8th Street
Sioux City, IA 51101

RE: Trosper Hoyt Building

Mr. Kenny Schmitz,

Star Control shall provide the following to replace the controls for all air handlers in the Trosper Hoyt Building and to add control points required to meet sequence outline by Corey Metzger from Resource Consulting Engineers:

- AHU-116, AHU-119, AHU-236, AHU-338, AHU-474-1 and AHU-474-2 will be re-controlled with new BACnet controllers, the control valves actuators will be converted to electronic, all the temperature sensors will be replaced with new, replace pneumatic actuators with electronic actuators for the vortex dampers and all the damper actuators will be converted from pneumatic to electronic
- Provide chilled water control valve for AHU-338 currently this unit has no chilled water valve
- 9 VAV boxes that are presently not visible to the maintenance personnel will be re-controlled; the 9 hot water reheat control valve shall be converted to electronic
- 9 controllers, electronic actuators and discharge air sensors for the zones associated with AHU-474-1 and AHU-474-2 this will allow us to provide better comfort in these areas
- Re-control 2 steam to hot water converters replace the valve pneumatic actuators with electronic actuator
- provide One control valve for converter that has a leaky steam valve
- Provide added points to chiller and boilers required to meet points list provided
- Labor to install and pull low voltage wire
- Programming on server to reflect changes
- Generate graphics to reflect point changes

Base Bid: **\$ 88,810.00**

Star Control would recommend providing ABB variable frequency drives to vary the duct pressure and abandon the vortex dampers in place. This would require us to replace 2 of the motors to inverter duty motors with grounding rings, for these services please add; **\$ 9,890.00**

Exclusions:

- Malfunctioning devices to remain in service
- Plumbing for valve replacement (**Budget for plumber \$ 5,500.00**)
- Insulating (**Budget \$ 6,500.00**)
- Electrical for new VFD's (**Budget \$ 5,000.00**)
- Balancing

Accepted By: _____

Date: _____

Pricing will need to be reviewed after 60 days

Sincerely,

Kevin Welty
Star Control
Phone: 712-224-2429

Star Control • 1800 11th Street • Sioux City, IA 51101
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