

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

#10c

Date: 3/07/2018 Weekly Agenda Date: 3/13/018

ELECTED OFFICIAL / DEPARTMENT HEAD / CITIZEN: Kenny Schmitz

WORDING FOR AGENDA ITEM:

Law Enforcement Center & Trospen Hoyt- HVAC Study

ACTION REQUIRED:

- | | | |
|--|---|--|
| Approve Ordinance <input type="checkbox"/> | Approve Resolution <input type="checkbox"/> | Approve Motion <input checked="" type="checkbox"/> |
| Public Hearing <input type="checkbox"/> | Other: Informational <input type="checkbox"/> | Attachments <input checked="" type="checkbox"/> |

EXECUTIVE SUMMARY:

The LEC & Trospen Hoyt HVAC systems equipment have exceeded their useful life. The buildings would benefit by an HVAC study that would outline a path forward as equipment will be replaced.

BACKGROUND:

Future equipment replacement should be addressed with a plan and thought process rather than a reactive approach due to an equipment failure. Such an approach would afford the opportunity to identify needs and associated costs.

FINANCIAL IMPACT:

CIP= B13-17
Resource Consulting Engineers= \$24,000.00

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 to approve HVAC studies for the LEC & Trospen Hoyt Buildings

ACTION REQUIRED / PROPOSED MOTION:

Motion to approve HVAC studies for the LEC & Trospen Hoyt building with Resource Consulting Engineers in the amount of \$24,000.00

March 7, 2018

Kenny Schmitz

Director of Building Services

Woodbury County

620 Douglas Street

Sioux City, IA 51101



RESOURCE
CONSULTING
ENGINEERS LLC

Re: Trospen-Hoyt Building – Facility HVAC Study – Proposal for Engineering Services

Dear Kenny,

I am pleased to present you with a proposal for services related to a Facility HVAC System Study for the Trospen-Hoyt Building. This proposal includes mechanical engineering services for the study. I appreciate the opportunity to provide this proposal, and look forward to helping Woodbury County develop a path forward for the mechanical systems in this important facility.

Our understanding of the Project Scope is based on our experience working in the building as part of the Steam Trap Service/Replacement Project and the Drawings and Control Documentation Project. Based on the work of these Projects, multiple concerns have been identified related to building mechanical systems. Specific concerns include existing system configurations and their ability to maintain occupant comfort, potential long-term issues with the chilled water system, the inefficient nature of some system and equipment configurations (including multi-zone air handling units), and the limited capabilities of existing control systems (both pneumatic and digital). Additional items identified by the Controls Contractor making changes to select Building Automation System (BAS) components include issues such as missing control valves and antiquated controllers.

Scope of services:

Services to be provided:

- Mechanical and Engineering Study Phase Services, including:
 - Building heating and cooling load calculations
 - Building ventilation calculations
 - Analysis of existing equipment with respect to heating/cooling loads and ventilation loads
 - Development of recommended system configurations, including zone blocking diagrams and system schematic diagrams
 - Proposed schedule for system replacement/upgrades
 - Development of budget costs for proposed system replacement/upgrades

Not included (available upon request):

- Detailed energy modeling
- Analysis of plumbing or electrical systems
- Architectural or programming analysis to verify suitability of building spaces for their function (would be provided by third party if required)
- Design of any building system modifications
- Building code analysis
- Design of modifications to, or analysis of, building structural components

Deliverables:

- Report documenting results of study, to include:
 - Written report describing analysis and recommendations
 - Heating and cooling load calculation information
 - Ventilation calculation information
 - Building blocking diagrams indicating recommended zones
 - Proposed system schematic diagrams

Schedule

We will work with Woodbury County to develop a detailed schedule for completion of the study once we have received a notice to proceed. Based on our understanding of the project at this time, we plan to complete the study by June of 2018, if not before.

Basic Services

We propose to provide the Engineering Study Services outlined above for a fixed fee of \$12,000.

Additional services outside the scope defined in this proposal will be provided on an hourly basis. No additional services will be provided without prior authorization from Woodbury County. The hourly rates for staff expected to work on this project are as follows:

- Senior Mechanical Engineer/Project Manager - \$140/hour
- Senior Electrical Engineer - \$140/hour
- Mechanical or Electrical Project Engineer - \$125/hour
- Mechanical or Electrical Engineer - \$100/hour
- Engineering Intern or Designer - \$80/hour
- Clerical - \$40/hour

Summary

I appreciate the opportunity to provide this proposal to provide engineering study services for a study of the HVAC systems at the Trosper-Hoyt Building. If you have questions or comments regarding this revised proposal, please do not hesitate to share them with me. I would be happy to review scope and fees in detail if it is helpful. I look forward to working together on this project. Thank you.

Respectfully,



Corey B. Metzger, PE
Principal
Resource Consulting Engineers, LLC

March 7, 2018

Kenny Schmitz

Director of Building Services

Woodbury County

620 Douglas Street

Sioux City, IA 51101



RESOURCE
CONSULTING
ENGINEERS LLC

Re: Woodbury County Law Enforcement Center – Facility HVAC Study – Proposal for Engineering Services

Dear Kenny,

I am pleased to present you with a proposal for services related to a Facility HVAC System Study for the Woodbury County Law Enforcement Center Building. This proposal includes mechanical engineering services for the study. I appreciate the opportunity to provide this proposal, and look forward to helping Woodbury County develop a path forward for the mechanical systems in this critical facility.

Our understanding of the Project Scope is based on our experience working in the building as part of the Intake Remodel Project and the Drawings and Control Documentation Project. Based on the work of these Projects, multiple concerns have been identified related to building mechanical systems. Numerous pieces of equipment in the facility are not fully operational, existing distribution systems have issues, some systems lack adequate capacity, and numerous issues have been identified with existing controls. In addition to the identified issues, there are also numerous concerns related to how issues with major pieces of equipment can be repaired or replaced, and the lack of redundancy for some of these major components.

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Respectfully,



Corey B. Metzger, PE
Principal
Resource Consulting Engineers, LLC