

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

Date: 8/10/2022 Weekly Agenda Date: 8/16/2022

ELECTED OFFICIAL / DEPARTMENT HEAD / CITIZEN: Kenny Schmitz

WORDING FOR AGENDA ITEM:

WCICC Emergency Generator (Courthouse) Project- Engineering Services Agreement

ACTION REQUIRED:

- Approve Ordinance Approve Resolution Approve Motion
Public Hearing Other: Informational Attachments

EXECUTIVE SUMMARY:

Resource Consulting Engineers by request have provided an Engineering Services Agreement for design of an emergency generator at the Courthouse for WCICC Data Center back-up/emergency power.

BACKGROUND:

The WCICC Computer Data Center currently receives back-up power generation currently via the Law Enforcement Center emergency generator (across street from Courthouse). A replacement for emergency power generation must be designed and installed prior to the LEC closure.

FINANCIAL IMPACT:

2022 Unallocated CIP funds
Total Project cost TBD in competitive bid process
Engineering/ Architectural Fees- \$32,500
Contingency- (5% of estimated cost)
Estimated Cost- \$250,000
Estimated Project Total = \$295,000

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:

Motion to approve Resource Consulting Engineers Design fees

ACTION REQUIRED / PROPOSED MOTION:

Motion to approve WCICC Data Center Emergency Generator Project Engineering & Architectural Design fees from Resource Consulting Engineers LLC in the amount of \$32,500.00

August 10, 2022

Kenny Schmitz

Director of Building Services

Woodbury County

401 8th Street

Sioux City, IA 51101



RESOURCE
CONSULTING
ENGINEERS LLC

Re: Woodbury County Courthouse – Generator Installation

Dear Kenny,

I am pleased to present you with a proposal to provide Architectural and Engineering Design and Construction Administration Services for a Generator Installation Project at the Woodbury County Courthouse building, specifically serving the WCICC (Woodbury County Information and Communication Commission) space. I appreciate the opportunity to provide this proposal and look forward to working with you and your team to address reliability concerns for this important space.

Based on our site visit, review of existing documentation, preliminary structural review, and follow up with City of Sioux City personnel, we expect this project to include the installation of a natural gas-fired generator on the low roof of the existing courthouse building. The only portion of the Courthouse Building currently served by a standby generator is the WCICC space. Standby power for this space is provided by a generator located in the Law Enforcement Center, across the street to the north of the Courthouse. As the Law Enforcement Center will be demolished in the relatively near future, there is a need to provide a new source of standby power for the WCICC space. It should be noted that after review with WCICC personnel, all critical functions of the space are mirrored at a second site, so while generator power is necessary, the use of natural gas as a fuel (generally considered less reliable than fuel oil as it depends on continued supply of natural gas from the utility) is acceptable for operational purposes at this site. Fuel oil would generally be preferred; however, the Courthouse site does not allow for an exterior tank installation and an interior tank along with required fuel pumping systems and controls would be complicated, expensive, and maintenance intensive. Potential locations for installation of a generator were reviewed, and the most viable option appears to be mounting a generator on the frame that supports the air-cooled chiller on the south portion of the low roof of the building. A preliminary structural review has been completed and this appears to be feasible, and space appears to be available on the frame. Finally, a preliminary review was completed with personnel from the City of Sioux City regarding potential code requirements for the generator. The current generator only serves the WCICC space and does not serve any other building systems. As the WCICC space

is located well above grade, potential needs for adding egress lighting, fire alarm systems, etc. for extended outages were discussed. It was indicated that the city would not require a new generator to serve any systems that are not currently fed by the generator. With this information in mind, the design intent is to provide a natural gas-fired generator mounted above the low roof of the building, serving existing WCICC loads. The new generator will be reconnected to the existing panels serving the space, likely with a new automatic transfer switch. Natural gas will be brought up to the roof from the basement of the building and conductors from the generator will be brought from the roof down to the basement. Any necessary modifications to the structural frame above the roof will be included to support the generator. Any architectural modifications to allow for gas piping and conduits routed between the roof and the basement will be included in the design as well.

Scope of services:

Services to be provided:

- Electrical and Mechanical Engineering Design Phase Services, including:
 - Calculations for electrical loads served by the generator
 - Detailed review will be completed to determine proper sizing of the generator
 - Design of demolition of existing conductors from Law Enforcement Center generator
 - Design of new generator, along with modifications to electrical distribution system serving WCICC space
 - System configuration options will be reviewed to optimize operating capabilities
 - Design of natural gas system modifications to serve generator
 - Review meeting(s) with Woodbury County personnel to review proposed system modifications and proposed contract documents
 - Production of Contract Documents, to include:
 - Drawings
 - Project Manual, including general requirements and technical specifications
- Architectural Services, including:
 - Design of minor architectural modifications necessary to route conduits and natural gas piping between basement and low roof
 - Design of roofing modifications for penetrations of existing roof
 - Production of Contract Documents, to include:
 - Drawings
 - Technical specifications
- Structural Engineering Design Phase Services, including:
 - Design of modifications to structural frame above roof to accommodate new generator
 - Production of Contract Documents, to include:
 - Drawings
 - Technical specifications
- Bidding Phase Services (all disciplines), including:
 - Response to requests for information
 - Attendance at pre-bid meeting (attended by Electrical/Mechanical Engineer at a minimum, attendance of others to be reviewed based on need at completion of design)
 - Preparation of Addenda as necessary
- Construction Phase Services (all disciplines), including:
 - Review of submittals
 - Response to contractor questions

- Preparation of Supplemental Instructions, Change Requests, etc., as necessary
- Attendance at project construction progress meetings (RCE to attend all meetings – subconsultants to attend only on as-needed basis)
- Field observations during construction phase as appropriate (assumes approximately 4 construction meetings/site visits over a 1-2 month construction period)
- Preparation of punch list
- Incorporation of changes into electronic record documents

Not included (available upon request):

- Mechanical system design and construction services not listed above, including:
 - Energy modeling services
 - Design of modifications to systems other than natural gas serving generator
- Electrical system design and construction services not listed above, including:
 - Design of modifications to electrical service or power distribution other than those related to generator replacement
 - Design of adding new loads to generator, including fire alarm system, egress lighting, elevator, etc.
 - Design of modifications to existing lighting system components
 - Design of modifications to fire alarm system
- Modifications to existing plumbing systems
- Architectural system design and construction services not listed above, including:
 - Design of modifications to building interiors or envelope other than those required for routing of conduits and natural gas piping through the building
- Structural system design and construction services not listed above, including:
 - Design of modifications to, or analysis of, building structural components other than those associated with the generator
- Design of modifications to building systems other than those described herein
- Civil engineering and landscape design services
- Development of abatement plan or procedures for hazardous materials (asbestos, mold, etc.)
- Support for LEED or other third party certification programs

Deliverables:

- Review Documents to be approved before production of Contract Documents
- Contract Documents to include:
 - Project Manual including Project General Requirements, Project Contract Requirements, and Technical Specifications – general scheduling/phasing documents shall be provided, but Contractor will be responsible for final scheduling and coordination of Work
 - Drawings defining scope of Project Work

Schedule

It is understood that the project needs to move forward in a timely fashion, and that the goal will be to complete construction as soon as possible. Once provided a notice to proceed, we will work with your team to develop a schedule intended to meet the requirements of Woodbury County and to minimize impact to operations at the Woodbury County Courthouse.

Consultants

It is our intent to provide Woodbury County with a design team having the capability to meet the needs of the project. With that in mind, The Loess Group, CMBA Architects, and Raker Rhodes Engineering will serve as sub-consultants to Resource Consulting Engineers, LLC providing electrical engineering, architectural, and structural engineering services, respectively.

Basic Services

We propose to provide the services outlined above for a fixed fee of \$32,500. Additional services outside the scope defined in this proposal will be provided on an hourly basis, but only after approval from authorized Woodbury County Personnel.

Summary

I appreciate the opportunity to provide this proposal to provide design and construction administration services for a Generator Installation Project for the Woodbury County Courthouse Building. I believe the implementation of this project will benefit the facility and improve your operations for many years to come. If you have questions or comments regarding this 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,

A handwritten signature in black ink, appearing to read 'C. Metzger', with a long horizontal line extending to the right.

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