CITY OF WEST DES MOINES
CITY COUNCIL MEETING COMMUNICATION

ITEM: **DATE: May 2, 2016**

Motion – Approving Amendment No. 1
Professional Services Agreement
Public Safety Station 18 HVAC Improvements
Resource Consulting Engineers, LLC

FINANCIAL IMPACT:

The original Professional Services Agreement was awarded to Resource Consulting Engineers, LLC in the amount of $30,500.00. Amendment No. 1 increases the amount of the contract by $14,750.00 for a total cost of $45,750.00. All costs for these services can be paid from budgeted account no. 3013.75.810.6.7920 with ultimate funding from General Obligation Bonds.

BACKGROUND:

Resource Consulting Engineers, LLC is working under an agreement dated June 29, 2015 for Professional Consulting Services associated with the Public Safety Station 18 HVAC Improvements project. The HVAC equipment at Station 18 is nearing the end of its useful life and has had experienced continuing operational and maintenance issues. The initial scope of services included mechanical and electrical design of replacement HVAC systems. Subsequent analysis has determined architectural and structural modifications of the building are required for the installation of the new systems. Approval of Amendment No. 1 includes additional fees for architectural and structural engineering services required to complete final design of the project.

RECOMMENDATION:

City Council Adopt:

- Motion Approving Amendment No. 1 to the Professional Services Agreement.

Lead Staff Member: Duane C. Wittstock, P.E., L.S., City Engineer

STAFF REVIEWS

Department Director	Duane C. Wittstock, City Engineer
Appropriations/Finance	Tim Stiles, Finance Director
Legal	Richard Scieszinski, City Attorney JBW
Agenda Acceptance	RTJ

PUBLICATION(S) (if applicable)

Published In	
Dates(s) Published	

SUBCOMMITTEE REVIEW (if applicable)

Committee	Public Works		
Date Reviewed	April 25, 2016		
Recommendation	Yes	No	Split

April 21, 2016

RESOURCE
CONSULTING
ENGINEERS LLC

Ben McAlister, PE
Principal Engineer
City of West Des Moines
Engineering Services
4200 Mills Civic Parkway
West Des Moines, IA 50265

Re: West Des Moines – Public Safety Station 18 – Mechanical System Upgrades (City Project Number 0510-045-2012) – Revised Proposal

Dear Ben,

I am pleased to present you with a revised proposal to provide Architectural and Engineering Design and Construction Administration Services for Mechanical System Upgrades at Public Safety Station 18 in West Des Moines. I appreciate the opportunity to provide this proposal, and look forward to helping address the existing mechanical and control system issues at the West Des Moines Public Safety Station 18 Facility.

Based on information provided in the draft building assessment document dated December 10th, 2015, along with subsequent review, it is understood that the intent of this project is to replace/retrofit selected existing mechanical systems at Station 18 with new systems consisting of:

- Variable-Air-Volume (VAV) Rooftop Unit System serving normally occupied portions of building (not including apparatus bay or adjacent support spaces), with hot water re-heat
- New heating water system consisting of multiple condensing, natural gas-fired boilers
- New perimeter heating in selected spaces where necessary to improve comfort
- New Direct Digital Control (DDC) Building Automation System (BAS) to control newly installed components
- Modification to roof access path to improve accessibility of new roof-mounted equipment

The new and modified systems will focus on improving comfort and indoor air quality in areas where concerns have previously been identified. To the extent possible, work of this project will be completed with a focus on coordination with an envelope improvement project expected to start design in summer of this year.

Scope of services:

Services to be provided:

- Mechanical, Electrical and Structural Engineering and Architectural Design Phase Services (included in Basic Services of the Consultant below), including:
    - Review of existing space mechanical systems, including layout, capacities, etc., to verify appropriateness of proposed system modifications
    - Calculations to verify capacities for new mechanical equipment
    - Heating and cooling load calculations
    - Ventilation calculations
    - Building pressure analysis
    - Architectural code analysis
    - Analysis of roof structural capacity
    - Design of mechanical system replacement/retrofit as follows:
        - Addition of two packaged rooftop units
        - New duct distribution from packaged rooftop units to spaces, including VAV boxes with hot water re-heat coils
        - Replacement of existing heating water boiler and pumps with multiple condensing boiler and new primary-secondary pumping system – portions of existing piping and selected system components may be re-used where appropriate
        - Addition of perimeter heating in selected spaces to address comfort issues
        - New/upgraded DDC system to serve new mechanical system components
    - Design of electrical power distribution system modifications necessary to serve modified mechanical system components
    - Design of architectural modifications as follows:
        - Removal and re-installation of ceilings to allow for ductwork, piping and equipment to be removed and re-installed – final plans for re-installation will be reviewed to determine if work should be delayed to prevent duplication of work as part of separate envelope improvement project
        - Details related to installation of new roof-mounted equipment – details will be reviewed to coordinate with work of envelope improvement project if possible
        - Details related to new/revised roof access
    - Design of structural modifications to roof necessary to support new roof-mounted equipment
    - Attendance at project design meetings to review design and system options with City of West Des Moines

    - Participation in commissioning reviews of mechanical and electrical system modifications
    - Production of contract documents to include:
        - Drawings
        - Project Manual
- Mechanical, Electrical and Structural Engineering and Architectural Bidding Phase Services, including (included in Basic Services of the Consultant below):
    - Response to requests for information
    - Attendance at pre-bid meeting (RCE will attend, other consultants are not expected to be present)
    - Preparation of Addenda as necessary
- Mechanical, Electrical and Structural Engineering and Architectural Construction Phase Services (included in Resident Consultant Services below), including:
    - Review of submittals
    - Response to contractor questions
    - Preparation of Supplemental Instructions, Proposed Contract Document Revisions, etc., as necessary
    - Attendance at project construction progress meetings (RCE will attend, other consultants will not attend all meetings, but will visit project site as necessary to observe work)
    - Participation in commissioning process and response to items identified on commissioning issues log
    - Field observations during construction phase as appropriate
    - 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
  - Modifications to mechanical systems in Apparatus Bay and adjacent support areas
- Design of modifications to electrical service or power distribution other than those related to mechanical systems replacement
- Design of modifications to plumbing system, other than those required for re-connection of new boilers to make-up water system as appropriate
- Design of modifications to fire alarm system (other than those associated with new mechanical equipment)
- Design of modifications to lighting or lighting control systems
- Design of modifications to communications systems
- Design of modifications to building architectural components not listed above
- Design of modifications to, or analysis of, building structural components not listed above
- Design of modifications to building systems other than those described herein
- Civil Engineering services
- Support for LEED or other third party certification programs

Deliverables:

- Building assessment detailing issues and analysis related to building, along with preliminary opinion of cost (document referenced above provided on December 10, 2015)
- Review Documents to be approved before production of Contract Documents, including detailed opinion of cost
- Contract Documents to include:
  - Project Manual including Project General Requirements, Project Contract Requirements, and Technical Specifications
  - Drawings defining scope of Project Work

Schedule

It is understood that the goal of the City of West Des Moines is to have the work of this project completed as soon as possible. Work is underway related to the mechanical and electrical systems design for the project. It is our intent to have documents ready for bidding by late spring of this year, with construction occurring primarily in the late summer and fall of 2016.

Consultants

It is our intent to provide the City of West Des Moines a design team with capabilities to meet the needs of the project. With that in mind, OPN Architects will serve as a sub-consultant to

Resource Consulting Engineers, LLC, to provide architectural services to support the mechanical system work, as described in this proposal. Charles Saul Engineering, Inc. will provide structural engineering analysis and design associated with new roof mounted mechanical equipment. We believe that this team's experience working together will enable us to work efficiently to produce a high-quality design for the project. Civil engineering services are no longer anticipated to be required as part of the project based on the design direction being pursued.

Basic Services

We propose to provide the design, bidding phase, and construction administration services outlined above as follows:

- Design and Bidding Phase Services for the Mechanical System Upgrades (Basic Services of the Consultant):
  - Original fee (not including architectural or structural): $23,500
  - Additional services: $11,250
  - New total proposed fee: $34,750
- Construction Phase Services for the Mechanical System Upgrades (Resident Consultant Services):
  - Original fee (not including architectural or structural): $7,500
  - Additional services: $3,500
  - New total proposed fee: $11,000

We propose to provide the engineering and architectural services listed above on an hourly, not-to-exceed basis. The fees listed above include reimbursable expenses to include mileage and printing services. Reimbursable expenses will be identified separately from time on invoices. The increase in fees compared to the original project proposal and agreement is driven by the addition of architectural and structural engineering services to the project's scope.

The hourly rates for staff expected to work on this project are as follows:

- Mechanical Engineer/Project Manager - $130/hour
- Electrical Engineer - $130/hour
- Mechanical/Electrical Engineering Intern or Designer - $80/hour
- Architectural Principal - $235/hour
- Project Architect - $115/hour
- Architect - $90/hour
- Intern Architect - $65/hour
- Senior Structural Engineer - $142/hour
- Structural Engineer - $120/hour
- Junior Structural Engineer - $100/hour
- Structural Engineer EIT III-IV - $84/hour
- Structural Engineer EIT I-II - $74/hour
- Clerical - $45/hour

Summary

I appreciate the opportunity to provide this proposal to provide design and construction administration services for mechanical system upgrades at Public Safety Station 18 in West Des Moines. I believe the implementation of this project will serve to improve the operational capabilities of the facility. 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,

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

Location Map - Public Safety Station 18
5025 Grand Avenue

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0 100 200 400 600 800 Feet