REQUEST FOR PROPOSALS (RFP)
to
PROVIDE PROFESSIONAL ENGINEERING AND ARCHITECTURAL SERVICES
for
GENERAL MITCHELL INTERNATIONAL AIRPORT
HVAC SYSTEM RETROCOMMISSIONING ENGINEERING DESIGN, BID AND CONSTRUCTION SERVICES
SITE #290, BLDG. #205

Project Number 5041-11457

DEPARTMENT OF ADMINISTRATIVE SERVICES

Milwaukee County

Date: December 4, 2012

To: All Interested Consultants

Subject: Request for Proposal (RFP) - Provide Professional Engineering & Architectural Design Services

Project No. & Name: 5041-11457 - Retro Commissioning (RCx) of Airside HVAC Systems

Location: General Mitchell International Airport
5300 South Howell Avenue, Milwaukee, WI

Section I – Introduction

1. This Request for Proposal (RFP) is authorized by the Director of Administrative Services for Milwaukee County. This RFP is a request for engineer consulting design and construction services to provide Retro-Commissioning (RCx) services for General Mitchell International Airport (GMIA) for approximately 500,000 sq. feet of space. The RCx services shall cover the Main Terminal, the Ticketing Area and Concourses C, D and E. RCx project will be completed in accordance with Wisconsin Focus on Energy's, (WFOE) Retrocommissioning Program utilizing the Retrocommissioning Service Provider Manual, dated October 2012. The scope of work contained in this proposal covers the "RCx Audit", "Implementation", "Verification" and "Persistence" phases of the process, as described in the Provider Manual.

2. Milwaukee County is requesting that the retrocommissioning services shall be provided in two phases, with each phase covering a different part of the airport as follows::

   a. Phase 1 – Concourses C & D: Approximately 46 air handling units and 34 exhaust fans

   b. Phase 2 – Concourse E and the Main terminal: Approximately 31 air handling units and 17 exhaust fans

   It should be assumed that the Audit portion of second phase of the project can begin after the implementation portion of the first phase has started.

3. Note that retrocommissioning of the Central Chilled Water and Boiler Plant is not included in the scope of this project. However Central Chilled Water and Boiler plants will be checked for proper operation as required by WFOE.

Section II – General Requirements of Consultant

The consultant shall provide complete and comprehensive engineering design services, which will include verifying existing site conditions, code review for plan compliance with local, state and federal rules and regulation, adherence to sustainable design practices and identifying necessary and/or incidental issues that will mitigate problems and/or risks throughout that course of the project. The consultant must provide Milwaukee County with final plans stamped and signed by the responsible engineer/architect with their Wisconsin Registration Seal(s). Refer to the Type "A" agreement accompanying this document to find additional information regarding contract requirements for Milwaukee County Professional Services.

Section III – General Description

Engineer shall provide to Owner study and analysis professional services in all areas of the Project to which this Agreement applies.

RCx Scope of Services

a. The RCx process includes four general phases as outlined in the WFOE manual. These are Audit, Implementation, Verification and Persistence Phases.

b. Engineer shall conduct the Audit Phase of RCx at the Owner facilities, and deliver one completed RCx Workbook (WFOE spreadsheet document).

c. General Requirements for this RCx project include:

    1. Engineer will coordinate and direct the RCx activities during this project.

    2. Engineer will provide and distribute minutes of RCx meetings.

d. Audit Phase Scope of Work (to be conducted in two phases as described above)

    1. Interview building operators to gain an understanding of the requirements of the different spaces in the Airport and any operation problems that have been experienced.

    2. Review existing drawings, specifications, test and balance reports, etc., as required to gain an understanding of the systems to be retro-commissioned.

    3. Perform an analysis of the facility recent historical energy consumption performance by reviewing utility bills and calculating energy use intensity and Energy Star Score.

    4. Perform a site assessment to gain an in-depth understanding of how the RCx building systems and equipment are currently operated and maintained, why they are operated in that way, and what the facility staff considers to be the most significant problems. The site assessment shall address the following major issues:

        a) Overall building energy use and demand and areas of highest energy use and demand.

        b) Current design and operational intent and actual control sequences for each piece of equipment included in the project. Note that it has been determined that accurate written control sequences of operation do not exist for many of the

systems. The actual sequences of operation will need to be determined by reviewing programming

c) Equipment nameplate information and equipment condition issues.

d) Current schedules (setpoint, time-of-day, holiday, etc.)

e) The most severe control and operational problems

f) Location of the most comfort problems or trouble spots in the buildings.

g) Current O&M practices

5. Systems to be included in the RCx process are listed below:

   a) Air Handling Units/terminal equipment

   b) HVAC Packaged Systems

   c) Rooftop Units

   d) Kitchen Ventilation/Exhaust Systems

   e) Building DDC Systems associated with above listed systems

6. Develop and implement a diagnostic monitoring and test plan to compile data on how systems are operating by the use of BMS trend logging, portable data logging and/or functional performance tests.

   a) Document existing sequence of operation, develop written functional test procedures, test to determine sequence is operating as intended, and evaluate sequence for the given application and possible modifications for energy savings. Testing to be completed on systems listed under scope item 5. Note that a sampling strategy will be utilized **only** on AHUs will airflow capacity less than 8,000 CFM. Approximately 40 AHUs should be assumed to require detailed testing. The Airport shall provide the assistance of a control technician capable of manipulating and providing access to all levels of programming and set points contained in the Johnson Control building management system that controls all AHUs to be retro-commissioned.

   b) Data representative of actual facility operating status are necessary both to provide insight into the operation of equipment and to support engineering calculations that may form the basis for savings associated with Facility Improvement Measures. Collection of these operational perimeters may be done using primarily the BMS, handheld meters, written logs or a combination of these methods. Note that this data will be used to compare to modified conditions during the verification phase of the project.

7. Based on the preceding data collected, testing completed and Engineer's experience and judgment, prepare an updated master list of facility improvement measures (FIMs). This list will include low cost/no cost and capital improvement projects.

8. Review with Owner all data gathered and master list of facility improvement measures identified prior to detailed engineering calculations of savings and costs (if applicable).

9. Calculate the annual energy savings (where applicable) for FIMs so identified.

10. Estimate the probable construction cost to implement each FIM and calculate simple payback of FIMs (where applicable).

    Note: Capital Facility Improvement Measures, if applicable, with greater than 1.5 year simple payback will be listed, however, no calculations and/or capital costs will be provided as part of this scope of work. Simple paybacks of greater than 1.5 years will be based solely on Engineer's experience.

11. Develop a verification plan and a persistence plan for the identified low/no cost FIMs identified.

12. Identify documentation enhancement needs for the systems being included in the RCx project.

13. Prepare an RCx Investigation Report describing the services performed, summarizing the results obtained and recommendations.

14. Meet with Owner to review the RCx Investigation Report and to assist in selection of FIMs for implementation.

15. Audit phase deliverables include:

    a) Results of site assessment

    b) Diagnostic and monitoring plan

    c) Existing systems sequences of operation

    d) Trend logs/data

    e) Completed functional test forms

    f) Updated listing of deficiencies found and Facility Improvement Measures (FIMs) identified with narrative description

    g) Supporting energy savings calculations based on engineering estimates

    h) Probable construction cost (if applicable) for each FIM based on engineering estimates

    i) Project Meeting Minutes

    j) Project Progress Reports

    k) RCx Workbook (Focus on Energy spreadsheet report). This shall be submitted to Focus on Energy for review prior to being submitted to Milwaukee County and the Airport.

e. Implementation Phase of Work (to be performed in two phases as described previously)

1. Provide written descriptions of the work required to implement FIMs that are to be implemented. These descriptions shall include written modifications to sequences of operation, descriptions of test and balance work, etc.

2. Answer questions from contractors hired by the Owner, as required, to clarify written descriptions for FIM implementation.

f. Verification Phase of Work (to be performed in two phases as described previously)

1. The verification phase must start no more than 30 days after completion of implementation of measures identified during the audit portion of each of the two phases.

2. Direct collection of BMS trend logs, spot temperature and power measurements, etc. to verify the effect of measures that have been implemented.

3. Review collected data and compare to the data collected prior to implementation of measures.

4. Update energy savings calculations for measures that were implemented based on trend data, measurements and observations.

5. Prepare the Verification Workbook (Focus on Energy spreadsheet report).

g. Persistence Phase of Work (to be performed in two phases as described previously)

1. The verification phase must start no approximately 90 days after completion of the verification portion of each of the two phases.

2. Direct collection of BMS trend logs, spot temperature and power measurements, etc. to verify the that measures that have been implemented are still continuing to function as observed during the verification phase.

3. Review collected data and compare to the data collected prior to implementation of measures.

4. Prepare the Verification Workbook (Focus on Energy spreadsheet report).

16. Ventilation/Pressurization Study Scope of Work

a. The Airport has experienced some problems recently, including odors from restaurants in the airport travelling far into other areas of the airport, condensation on cold surfaces like supply air grilles, etc. While the operation of AHUs and exhaust fans in the airport are being examined during the retro-commissioning part of this project, the operation of mixed air dampers, relief dampers and exhaust fans is to be reviewed in an effort to identify deficiencies in these systems that may be causing the problems that have been experienced.

b. This study involves providing direction to a test and balance contractor to obtain outside air intake measurements for AHUs and exhaust air flows for exhaust fans throughout the airport. The Airport is concerned about food odors, occasional problems of condensation on supply diffusers and windows, etc.

c. Arrange a kick-off meeting with GMIA engineering/building operations staff to discuss known problems associated with the ventilation/exhaust systems in the facility, including food odor complaints and negative or positive pressurization problems.

d. Survey portions of the airport and its systems to observe operation of exhaust fans, dedicated make-up AHUs and general conditioning AHUs.

e. Prepare a detailed scope of work document to allow the County to hire a test and balance contractor to take measurements of AHU outside air intake airflows and exhaust fan exhaust airflow under modes of operation as required to assess pressurization conditions in all expected operating conditions.

f. Review the results of the airflow measurements taken by the test and balance contractor hired by the County for completeness and coordinate with the test and balance contractor for any additional required measurements.

g. Analyze the results of the measurements taken by the test and balance contractor and observations made during the study and make determinations of the sources of odor and pressurization problems.

h. Prepare a written report describing the activities of the study, observations and recommendations. Provide probable construction cost estimates for any recommended modifications.

i. Present the report to County and Airport personnel.

Section IV – Scope of Basic Services:

Based upon the Schematic Design Phase solution, the consultant will be responsible for the preparation of Construction Bidding Documents, Bidding and Bid Negotiation assistance, and limited construction Phase Services, which may include Shop Drawing review, review of manufacturer's materials and products submittals, review of samples from the contractor.

The consultant is required to assure the Owner that the results of the Contractor's work is in strict accordance with the plans and specifications, as required, to produce Record Documents of the construction work, which will be given to the Owner after certification of Substantial Completion.

Attached, please find a copy of Milwaukee County Department of Administrative Services – Stipulated Sum (Lump Sum) Standard Prime Consultant Agreement for Professional Services (Type "A" Agreement). The scope of basic services specified in Article 3: Basic Services of the attached Agreement for each of those six (6) phases, include the services below as a part of those basic services:

Section 1.01 Programming & Schematic Design Phase

From interviews, research, and study of the owner's needs, the consultant shall prepare a program and an estimate of probable construction costs for the project as described in the attached consultant agreement. Required deliverables shall include but are not limited to the following:

a) **Schematic design plan and program description.**

b) **Cost estimate broken down into two proposed construction segments.**

SCHEMATIC DESIGN PHASE

The consultant shall meet with the Department of Architecture and Engineering, the Department of Facilities Management (Owners). Visit the project site and verify documents and existing drawings with existing site conditions.

Review and verify the design program provided the Owners and revise or update the program as necessary to met the Owners current needs and expectations for the existing upgraded HVAC system.

Prepare Schematic design that meets the program requirements, the Schematic design shall include as necessary studies consisting of drawings and other documents illustrating the scale and relationship of the project components, including the envelope, energy calculations, as may be appropriate for a completed, operational, functioning building, upon approval by the Owner of the Schematic Design documents and a Statement of Probable Construction Cost submitted by the consultant his phase of services is complete.

Design Development Phase

The Consultant shall prepare more detailed drawings and other data relating to updated building HVAC system, electrical systems and other essentials. The Consultant shall submit an updated statement of Probable Construction Cost. When the owner approves these documents, this phase is complete.

Construction Documents Phase

Prepare drawings and specification describing, in technical detail, the construction contract work to be done – materials, equipment and workmanship required for HVAC, architectural, structural, mechanical and electrical work – and related site work, utility connections, and special equipment installations. The consultant will also assist the Owner in preparing information for bidders, bidding , and proposed contract forms, should alternates, unit prices or other special conditions be applicable, and Conditions of the Contract covering responsibilities during construction. The Consultant will advise the Owner of any adjustments to previous Statements of Probable Construction Cost, as well. When the Owner approved these documents, this phase is complete.

Bidding Phase

Advise the Owner about the qualifications of prospective contractors and assist, as may be required, in obtaining bids.

Construction Phase

1) Prepare supplementary drawings when required to clarify the consultant's design intent.

2) Review the Contractor's Schedule of Values; review of fabricators; and supplies' shop drawings, material samples and equipment, and other required submissions.

3) Make periodic visits to the Project site to review the progress and quality of Work to determine if the work is proceeding in accordance with the Contract Documents.

4) Review of the Contractor's applications for payment, determine that amounts invoiced are in reasonable agreement with Schedule of Value and invoiced amounts.

Section V – Tentative Schedule

The schedule shown below is based on the extent of basic design services up to Construction Adminsitration:

1) RFP completed: December 07, 2012
2) RFP approved: December 10, 2012
3) RFP publicly advertised: December 12, 2012
4) Pre-Proposal Meeting: January 04, 2013, 10:00 a.m. at GMIA
5) Proposals due: January 16, 2013
6) Select consultant: January 30, 2013
7) Consultant agreement signed and Notice to Start: February 13, 2013
8) Bid documents ready by: September 25,2013
9) Begin construction: January 03,2014
10) Substantial Completion of Construction: April 14,2014

The pre-proposal meeting in Hardie room, GMIA at 10:00 AM on January 04,2013.
Attendance at the Pre- Proposal meeting is mandatory.

Section VI – Proposal Content

Each proposal shall contain information in the following areas:

A. Cover: Include project number and name, project location, proposal title (Proposal for Professional Services), Consultants name, address, telephone number, FAX number, proposal date, etc.

B. Table of Contents: Include a clear identification of the material by section and by page number.

C. Letter of Transmittal: Limited to two pages, briefly state the bidder's Understanding of the service to be provided and a positive commitment to perform the services as defined in the RFP.

D. Organization Description: A brief description of the organization submitting the Proposal. Include the name, size, legal status (corporation, partnership, etc.), professional registration/certification, major type of activity or areas of consulting. The organization must be licensed to operate in the State of Wisconsin. Include a copy of current license, certification or registration.

E. We are looking for a consultant that has proven experience in similar types Of projects as well as green building and sustainable design practices. Include a list of similar projects that the organization has participated on in the past five (5) years. Attach a separate sheet for each project, up to five (5) maximum, giving a brief description of each project and the organization's participation.

F. Project Organization and Staff Experience: Include an organizational structure of the project team, including the relationship of the sub-consultants to be used for this project. The name of the Principal in Charge of this project along with their Professional Architect(s) and Engineer(s) Registration Number(s) in the State of Wisconsin must be clearly indicated in this section of the proposal, along with the name, occupation and title of the Project Manager who will be in charge of this project. Provide a resume' for each individual involved in the project, and include their names, title and /or duties for the project, professional registration, a brief

description of the qualifications and related experience including time contribution in this capacity on past projects.

G. Alternate Principal In Charge: Include the name of a Alternate Principal in Charge in the event that the originally declared Principal in Charge is not able to fulfill their duties. Milwaukee County Department of Administrative Services also reserves the option to select an Alternate Principal In Charge.

H. Sub-Consultants: Indicate the names and addresses of any sub-consultants and/or associates proposed in this project. State in what capacity they would be used and approximate percentage of the total services they would provide. Also state their past experience in the field.

I. Project Approach: Provide a description of the engineering, environmental and public involvement problems you anticipate in this project and how you propose to overcome them.

J. Scheduling: Provide a bar chart form schedule indicating a sequenced, time table, with relationship, which are necessary to complete the project, based on the schedule as noted in Section IV – Project Schedule, of this RFP.

K. DBE Requirements: Milwaukee County's policy is to achieve twenty-five percent (25%) Disadvantaged Business Enterprise participation in the professional services work to be performed by them. The work must be done by certified DBE firms, with the goal of selecting work which will enhance and further the DBE's experience in the design through construction administration process. For assistance, contact DBE office at 278-5104.

M. Equal Opportunity Employer: The consultant and all associated consultant(s) must be indicated in that section of the Proposal.

N. Fee Proposal: The fee for this project shall be clearly stated as lump sum for basic services as detailed in this document and further broken down for each phase of work as detailed in this document. Progress payments for those service will be made as stated in the attached professional services agreement. Include a copy of Attachment B-1" of the attached professional services agreement in this part of the proposal to indicate the direct salary rates, fixed overhead rates, etc. for any additional services that may be required.

Section VII – Proposal Submission Requirements and Format:

The Proposal must be submitted by January 16, 2013, at 2:00 P.M. to:

Milwaukee County Department of Administrative Services
Architecture and Engineering Division
City Campus, Room 222
Milwaukee, Wisconsin 53208
Attention: Vijay Mehta, Managing Mechanical Engineer

A. Six (6) copies of the Proposal must be submitted in a sealed envelope only. No other container is acceptable.

B. Each envelope must be identified with the submission date, RFP number, project number and title, and name and address of the submitting party. Envelopes which are not properly identified or received after time and date as noted in Section VI – A, above will be rejected.

C. Proposals must respond to each component as listed in Section VI – Proposal Content, in order as presented and in the form or format as requested. Each response must identify the heading and must respond entirely to each segment without reference to any other part of the Proposal.

D. The proposal must be submitted in a single bound 8-1/2" X 11" document.

E. In order to expedite the Agreement award process, each Prime Consultant is to completely fill in and include the attached Stipulated (Lump Sum) Standard Prime Consultant Agreement for Professional Services Type "A" Agreement. Insurance forms per the agreement will be required from the Successful consultant only.

Section VIII – Proposal Evaluation / Consultant Selection:

A. Proposals will be evaluated and ranked on the following criteria:

1. Quality and responsiveness to the RFP:	25%
2. Project approach and understanding, including strategy to perform requested work and time schedule:	35%
3. Qualifications and experience Prime Consultant	25%
4. Fee and hourly rates:	15%
Total:	100%

B. The evaluation team will be made up of three (3) to (5) individuals with Technical knowledge of the requirements, and familiarity with the project.

C. Selection of the Consultant(s) will be made entirely on the basis of the items Requested in the RFP and as addressed in the Proposals.

D. The evaluation may include an interview of a short list of up to three (3) finalists. However, an award may be made without this interview. The interview will be evaluated 40% on the previous qualification rating, as well as fee and the response to the project requirements.

Section IX – Miscellaneous:

A. Milwaukee County reserves the right to decide, at its sole discretion, to reject any or all proposals, issue addenda, request clarifications, waive technicalities, alter the nature and / or scope of the proposed project, request submittals, and/or discontinue this process.

B. Milwaukee County will not be responsible for oral interpretations given by Milwaukee County employees, representatives, or others that commit the County to influence the outcome of the selection process.

C. All proposals should use this RFP and its attachments as the sole basis for the proposal.

D. The issuance of a written addendum and the pre-submission meeting are the only official methods through which interpretation, clarification or additional information will be given.

E. Proposals will not be opened in public.

F. This is an RFP, not a bid. Therefore, Milwaukee County is not bound to Accept the lowest fee for professional services as the basis for selection.

G. All cost and/or expenses for preparing a proposal, attending the selection interview, if required, or supplying additional information requested by Milwaukee County is the sole responsibility of the submitting party.

H. All materials submitted will not be returned.

I. All questions regarding this RFP shall be directed in writing to:

Milwaukee County Department of Administrative Services
Architecture and Engineering Division
City Campus, Room 222
Milwaukee, Wisconsin 53208

Telephone: (414) 278-4743 Fax: (414) 223-1366

Attention : Vijay Mehta, P.E.
Managing Mechanical Engineer

Sincerely,

_____
Vijay Mehta
Managing Mechanical Engineer

Attachments:
Standard Prime Consultant Agreement for Professional Services (Type "A" Agreement)

cc w/o attachments:
G. High, A&E, E/S
M. Phillips, CBDP
W. Wilson, A & E, E/S