Madison Water Utility
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MEMORANDUM

Date: October 27, 2015

To: Water Utility Board

From: Pete Holmgren, PE
Engineer 3

Al Larson, PE, BCEE
Principal Engineer

Re: Blackhawk Water Tower
Recommendation to the Board for Engineering Services

Background

Madison Water Utility (MWU) advertised for proposals from interested, qualified firms to provide professional engineering services for the design and construction of a new water tower – "Blackhawk Tower" – on the far west side of Madison.

The proposed 1 million gallon water tower would:

- Provide additional gravity-fed water storage capacity within the existing Pressure Zone 10 boundary.
- Add needed storage capacity to the existing Pressure Zone 11 boundary.
- Allow for a merging of Pressure Zones 10 and 11 by hydraulically balancing the two zones.
- Supplement the storage at the Well 26 site on High Point Road.
- Provide a second feed (improved reliability) to the area by using Booster Pump Station 128.

The proposed site of this water tower is on the MWU-owned parcel of land located at the southeast intersection of Pioneer Road and Old Sauk Road (Town of Middleton). Professional engineering services shall include but not be limited to planning, alternative development, site layout, design, coordination, and construction administration of the water tower.

Pressure Zone 11 is currently fed using a variable speed pumping station. With development in the area the capacity of the pumping station is approaching its capacity, creating the need for a new water tower. The 250,000 gallon High Point Road reservoir (Pressure Zone 10) is reaching its capacity, and already does not provide sufficient emergency reserve capacity. Development within Zone 10 is also starting to stress the limits of the system to provide minimum fire protection. Providing minimum fire flow requirements to this area of the distribution system is necessary to meet MWU's level of service standards.

Request for Proposal (RFP) and Advertising

Following approval at the July 28, 2015 Water Utility Board meeting, MWU Engineering staff advertised for qualified applicants to submit proposals to develop drawings, specifications and contract documents to complete this upgrade and correct an identified deficiency in the system.

A request for engineering design services was prepared for the project. The RFP was electronically transmitted to an engineering firm distribution list which includes over 30 different companies.

Advertising commenced on August 20, with proposals due on September 11.

Proposals

Three excellent proposals were received and distributed to a review committee of five Water Utility employees with expertise and knowledge of the project: Pete Holmgren, Dennis Cawley, and Al Larson from Engineering; Douglas Van Horn from Operations and Maintenance; and Joe DeMorett from Supply.

Review

The proposals were all reviewed and rated independently by each member of the committee. The committee then met on Monday, September 21st for further discussions. The proposals were evaluated within two main categories:

1. Project Understanding
    a. Why the project is needed
    b. Schedule
    c. Understanding of the Madison process

2. Project Qualifications
    a. Project Team
    b. Work Experience
    c. Project Management
    d. Cost controls
    e. Work samples
    f. Madison approval process

The committee judged all three of the firms submitting proposals to be well qualified for the project. It was a difficult evaluation due to the fact very little separated the proposals and knowing that any of the firms could provide MWU with excellent service. Based on all information received, the proposals were ranked as follows:

	#1	#2	#3	#4	#5
Strand Associates	3	2	1	3	2
Baxter & Woodman, Inc.	1	1	2	2	1
SEH, Inc.	2	3	3	1	3

Submitted hours were also considered as a part of the evaluation as a demonstration of the effort expected and as a demonstration of project understanding. These submittals were opened and

reviewed following discussion and ranking of the applicants. Submitted hours and costs are as follows:

	Hours	Costs
Strand Associates	1,095	$148,500
Baxter & Woodman, Inc.	1,395	$176,500
SEH, Inc.	1,987	$260,000

Recommendation

Based on all of the information submitted and discussed, the committee came to the consensus that Baxter & Woodman was the most qualified firm for the Blackhawk Tower project. They have recent and relevant experience with pump station design and construction. Such projects include: Village of Hoffman Estates, IL; Village of Schaumburg, IL; and MWU's own facilities at Prairie Road.

Further qualifications were supported by the detail provided in Baxter & Woodman's proposal that reflected team experience, background research, and evident forethought regarding the anticipated effort to complete this project successfully. The proposal featured extensive public outreach with help from their in-house Communications/Public Relations Specialist, as well as tank coating/welding inspection in collaboration with Dixon Engineering – components that MWU deemed critical to the success of this project.

The costs and projected hours submitted by Baxter & Woodman with their proposal further reinforced their depth of understanding of the project and the challenges of developing a project that will meet MWU's needs. They provided a comprehensive description of the project and a detailed work plan that clearly demonstrated their understanding of the project, the challenges that MWU will face in completing the project, and all of the tasks needed to gain approval/acceptance of the project from regulating authorities and surrounding neighborhoods.

For these reasons, the committee unanimously recommends the hiring of Baxter & Woodman for the project development, design, and construction services for the Blackhawk Water Tower.