



Date: September 18, 2013  
To: Water Utility Board  
From: Al Larson, PE, BCEE  
Re: Request to Advertise for Engineering Services  
Project: Well 31 – Facility Design and Construction

### General Scope

Madison Water Utility is seeking to advertise for proposals from interested qualified professional engineering firms to provide design and construction administration services for the construction of Well 31 located near Tradewinds Parkway within Pressure Zone 4 in the southeast corner of the system. Professional engineering services shall include but may not be limited to public participation support, alternative development, site layout, design, coordination, and construction administration for the construction of a Unit Well Facility. Based on water quality testing from the test well, an iron and manganese filter will be required at Well 31. Water quality and production capacity will be verified and design criteria established with the completion and development of the production well. The area is also being considered for a remote equipment storage site.

### Background

The 2006 Master Plan identified a fire flow capacity deficiency and a lack of supply redundancy in the southern part of Pressure Zone 4. An analysis of this situation resulted in a recommendation to install a second well in Zone 4 to provide additional capacity, redundancy, reliability and fire protection capacity. The Utility retained BT<sup>2</sup> to evaluate the area and recommend a suitable well site. Based on this study, a site was selected on Tradewinds Parkway and purchased by the Utility. This site provides needed supply capacity south of the Beltline Highway and significantly improves fire flow to the area.

### Staff Availability

MWU Engineering staff does not have the expertise in foundation, structural, electrical, control, and HVAC engineering to complete this project. MWU will work closely with the selected consultant by leading the public participation effort and providing permitting assistance.

### Estimated Cost

Total project budget for the construction of Well 31 has been established at \$5.8 million.

### Project and MWU mission

This project corrects an identified fire protection and system redundancy deficiency and provides emergency backup supply capacity. The project would bring Pressure Zone 4 up to current Utility level of service standards.