



Date: December 12, 2012

To: Water Utility Board

From: Adam Wiederhoeft, PE

**Re: Request to Solicit Consultant Proposals  
Computer Aided Drafting (CAD) Work Methods**

### General Scope

Madison Water Utility (MWU) would solicit proposals from qualified vendors to recommend and implement a Computer-Aided Design (CAD) software package and associated tools and work methods capable of effectively designing & analyzing pressurized water main systems in both stand-alone and multi-City Agency “In-Roads” project design environments. The proposed work methods would incorporate efficient production procedures for preparing construction and bidding documents for City of Madison Public Works Contracts. The successful vendor would also provide the appropriate training, support, and implementation of the recommended solution.

### Background

The City of Madison recently implemented a multi-agency effort to upgrade CAD software for users. MWU completed transitional training, along with other City departments, which involved migrating all CAD users to Microstation V8i SELECT Series II from older CAD software. The software migration has since moved to Microstation V8i SELECT Series III. Project designers currently utilize Bentley’s InRoads family of products for road design, storm and sanitary sewer design, and water distribution system design.

Following the transitional software training, testing, and work with the Microstation software previously described, there are still many unknowns within MWU’s user base concerning the features and capabilities of the available applications. Additional software exploration, development, implementation and training must be completed before MWU can capture the full benefit of the software upgrade.

MWU understands and is open to the idea that there may be CAD software systems other than Microstation which could more effectively increase accuracy and efficiency of the design & drawing production of water systems. In the event that software other than Microstation and InRoads would be recommended to accomplish this requested scope of work, the proposed software package and associated work methods must be compatible with existing City project coordination procedures and City software packages.

### Staff Availability

MWU has the expertise to develop these standards and workflow updates internally, but given time and resource constraints, requires outside assistance to develop and implement a production-ready CAD environment.

### Estimated Cost

The estimated cost for this project is \$50,000.

### Project and MWU mission

The proposed project would help MWU staff improve accuracy and efficiency designing water systems. This supports MWU's core mission to provide water to customers for consumption and fire protection and helps MWU achieve its goals for Employee Development, Operational Optimization, and Infrastructure Stability.