



Date: July 28, 2015
To: Water Utility Board
From: Al Larson, PE, BCEE
Pete Holmgren
Re: **Report on Bid Results and Recommendation**
Project: **Well 12 Upgrade**

Background

Over the past year a dedicated project team of Utility staff and our consultant SEH developed a project design to upgrade Well 12 and convert it to a two zone facility. This planned upgrade was identified in the Utility Master Plan and would improve operational flexibility. The plan was to replace the pumps, the electrical equipment, and provide separate rooms for chemical feed equipment and a rest room. The project would correct a long standing deficiency identified by the DNR of the need for separate chemical feed rooms at the facility. A small building addition was planned for the east end of the building. The project design concept was approved by the Water Board prior to moving to final design. This work was incorporated into drawings and specifications suitable for bidding. The design worked its way through the Urban Design Commission and the Plan Commission and gained approval this spring. The work is scheduled to start in September 2015 and be complete by June 1, 2016. Pipeline work associated with the project is scheduled to be completed in the spring of 2016.

The project is critical to overall system supply on the west side. It allows water to be pumped from Zone 7 to Zone 8 adding redundancy and reliability to the system. The proposed facility would also allow water to flow from Zone 8 down to Zone 7. This operational flexibility would delay the need for a new well at less cost. Installing the ability to optimize the use of existing wells is a big advantage to the water supply overall system.

Bid Results

Three bids were received and opened by the City of Madison Public Works Department on July 10th, 2015 as follows:

UNIT WELL 12 UPGRADE AND CONVERSION TO A TWO ZONE WELL
CONTRACT NO. 7498
DATE: 7/10/15

CONTRACTORS	TOTAL BID	PREQUALIFICATION STATUS
Engineering Estimate	\$1,279,300.00	
Miron Construction Co., Inc.	\$1,895,829.00	OK
Staab Construction Corporation	\$1,937,800.00	OK
Joe Daniels Construction Co., Inc.	\$1,989,536.00	OK

The three bids received are within 4.9% and are considered to be valid representations of the actual cost of the work as defined by the project drawings and specifications. The two lowest bids are within \$42,000.

The overall bid was 48% over the final engineers estimate.

Bid Analysis

Following the bid opening, SEH contacted all of the bidders and requested additional information and a breakdown of their bids for analysis. We received information from Staab and Miron. The bid information is included as Attachment 1.

Over the course of design development on this project we have noted a steady increase in the estimated cost of this project. Working within a small building with equipment that is over 50 years old was challenging. The initial cost estimate has more than doubled from \$650,000 to \$1,279,000. The hope was the bids would be favorable and the project could move forward.

Considering the condition of the existing facility, building maintenance costs over the next several decades would continue to grow. Demolishing the building and constructing a new facility would best serve the needs of the Utility over the next 80 years. It is estimated that a new facility could be constructed for approximately \$2.8 million. A new building would extend the life expectancy from 40 years to over 80 years.

Conclusions and Recommendations

The bidding climate and the limited space available within the existing building is driving the cost way up. The condition of the building and the limited space does not warrant the excessively high bid price. It is our opinion that the existing building should be demolished and replaced. This would provide a facility that would be efficient and durable to the Utility more than doubling expected life of the facility.

Based on all the information gathered through bidding and the post bid evaluation it is our recommendation that all bids be rejected and the project be redesigned and rebid in the spring of 2016.

Madison Unit Well 12 Cost Evaluation

Item	Original Estimate	Miron's Estimate	Staab's Estimate	Average Cost	Difference
Process (Piping, Pumps, Valves, Chemical Feed)	\$ 291,000.00	\$ 378,907.00	\$ 497,800.00	\$ 438,353.50	\$ 147,353.50
Building	\$ 222,000.00	\$ 318,337.00	\$ 400,000.00	\$ 359,168.50	\$ 137,168.50
Mechanical (HVAC & Plumbing)	\$ 88,000.00	\$ 384,769.00	\$ 197,000.00	\$ 290,884.50	\$ 202,884.50
Electrical & SCADA	\$ 604,000.00	\$ 748,898.00	\$ 711,000.00	\$ 729,949.00	\$ 125,949.00
Site Work & Demolition	\$ 61,400.00	\$ 49,695.00	\$ 115,000.00	\$ 82,347.50	\$ 20,947.50
Landscaping	\$ -	\$ 15,223.00	\$ 17,000.00	\$ 16,111.50	\$ 16,111.50
Allowances	\$ 12,870.00	\$ -	\$ -	\$ -	\$ (12,870.00)
Total	\$ 1,279,270.00	\$ 1,895,829.00	\$ 1,937,800.00	\$ 1,916,814.50	\$ 637,544.50

J.F. Ahern's Estimate

Item	Cost Estimate
HVAC	\$ 91,000.00
Plumbing	\$ 67,000.00
Process	\$ 340,000.00
Total	\$ 498,000.00

L.W. Allen - Pump Estimate

Item	Cost Estimate
Booster Pumps (Both)	\$ 94,000.00

Energenecs - Chemical Feed Estimate

Item	Cost Estimate
Chemical Feed Equipment	\$ 43,000.00