



## Rochelle Municipal Utilities Water/Water Reclamation

To: David Plyman

From: Kathy Cooper

Date: November 4, 2012

Re: Lakeview Lift Station Upgrade

The Lakeview lift station is a Smith and Loveless pre-fabricated, wet well/dry well lift station that was installed in 1962 and has been reliable for fifty years. The structure, piping, valves and pumps are showing the wear, have reached the end of their life expectancy, and dependable service could become an issue. Because the location offers few options for upgrading or expanding the footprint of the lift station, we contacted the local Smith and Loveless representative to find out about possible options for replacement of the station. After visiting the site, John Greaney of Gasvoda and Associates suggested that we consider retrofitting the existing lift station with a vacuum prime station.

For the past thirty years, RMU lift stations have been designed as a wet well with submersible pumps, and staff had reservations about installing a vacuum prime system. We consulted with Matt Hansen of Willett-Hofmann, Dixon, about the feasibility of retrofitting the existing station with a dry-prime system. Matt has engineered dry prime lift stations for other communities and believes that, in the right application, they are a good product. After visiting Dixon and Sterling, and talking with the operators who have been responsible for the operation and maintenance of dry prime lift stations, we came to the conclusion that a vacuum prime station was a good option for the Lakeview lift station.

We also contacted operators throughout the Midwest that have vacuum prime installations, and all have been pleased with the performance. In addition to the Smith and Loveless stations, we talked with operators who operate and maintain the USEMCO and Dakota vacuum prime stations.

Mr. Hansen performed the design, permitting, and bid preparation for the project. Subsequent to the required public notice, bids were opened on September 4, 2012, and one bid, from Gasvoda and Associates was received. The bid was:

Base bid:	\$77,824
Alternate # 1 (sliding cover)	\$ 4,176
Alternate #2 (carbon steel base)	\$ 4,610 (a deduct from the standard stainless steel)

The sliding cover was listed as an alternate, as neither Dakota nor USEMCO provide a sliding cover for the lift station design. Likewise, the carbon steel base is standard for the Smith and Loveless lift station but was listed as an alternate so that the USEMCO and Dakota lift stations would be comparable packages.

USEMCO of Tomah, Wisconsin, sent a letter of protest, stating that they believed the specifications and bid form were written for a proprietary piece of equipment. The City Attorney reviewed the bid package and gave the opinion that the specifications, as written, were not illegal. The basis for the specifications were the Smith and Loveless vacuum prime station, and the technical specifications section stated that USEMCO and Dakota Pump were acceptable manufacturers, but that they must meet the minimum standard of quality for both equipment and materials of construction. It further stated that if either USEMCO or Dakota took exception to a specification, they were to indicate the exception on the bid form. Additionally, there was a pump certification affidavit required so that the engineer could determine if they conformed to the specifications.

The specifications for the project required a suction lift of twenty feet, and Dakota Pump did not submit a bid, as they do not recommend a maximum suction lift of more than seventeen feet. Smith and Loveless did not share their concern. The "IEPA Recommended Standards for Sewage Works" state that the required net positive suction head at design operation conditions shall not exceed twenty-two feet.

The 2012-13 Fiscal Year Water Reclamation capital budget contains a line item of \$65,000 for the Lakeview lift station upgrade. While preparing the capital plan, I contacted Mr. Greaney to obtain budgetary pricing for the vacuum prime lift station and was given an estimate of \$60,000. The Gasvoda bid that was opened was significantly above the estimate, so Matt Hansen and I began a review to determine the difference between the budgetary amount versus the bid amount. After comparing the two, we determined that there were five components that contributed increased the cost of the project. They were:

1. Specifying a Multi-smart controller, rather than S and L standard controller - \$8,000
2. Installation of variable frequency drives on the pumps - \$1,200
3. Installation of a metering device - \$4,000
4. Installation of a level transducer - \$1,400
4. A stainless steel base plate (Alternate bid #2) - \$4,610

We contacted Gasvoda and Associates to further discuss the bids and options for reducing the price to bring the project in line with the budget. Gasvoda was able to modify the scope of supply to reduce the cost of the project. RMU will provide the Multi-smart controller and level transducer, using the existing Lakeview lift station devices. The new proposal is:

Contract with Smith and Loveless for the lift station: \$60,000

Contract with Gasvoda for two VFD's, field installation of the flow meter readout, and start-up of the lift station: \$7,159.

I contacted the City Attorney, and he stated that the contracts meet the requirements for the City Council to approve a direct contract without competitive bidding, if they approve it by a two-thirds vote of the entire City Council, which is allowed under state law and Section 2-371 of the City Code.

Based upon the experience with Smith and Loveless products, the recommendation of the engineer, and discussions with municipalities using this system, I recommend:

1. That the City Council reject the base bid from Gasvoda and Associates for \$77,824 for the Lakeview Lift Station Bid of September 4, 2012.
2. That the City Council approve the contract from Smith and Loveless for \$60,000 for a Factory Built Formula X Automatic Pumping Station, as provided for in Inquiry Number 19069, and waive the requirement of competitive bidding.

3. That the City Council approve the contract with Gasvoda and Associates for \$7,159 for two VFD's, field installation of the flow meter, and start-up of the lift station, and waive the requirement of competitive bidding.

RMU Operators will provide the labor for the installation.

Existing station



New Station

