



TriCo Regional Sewer Utility

www.TriCo.eco Phone (317) 844-9200 Fax (317) 844-9203

JOINT CAPITAL & CONSTRUCTION COMMITTEE AND BOARD OF TRUSTEES MEETING

Tuesday, February 5, 2024 at 4:30 P.M.
7236 Mayflower Park Drive, Zionsville, IN 46077

AGENDA

1. Public Comment
2. #2301 Lift Station 10 Upgrades
 - a. Construction Contract Award
 - b. Pump Procurement
 - c. VFD Procurement
 - d. Standby Generator and Automatic Transfer Switch Procurement
3. Lift Station 16 Replacement Change Order
4. Capital Project Updates
5. Other Business

Next Scheduled C&C Committee Meeting: Monday, March 4 at 4:30 pm



MEMORANDUM

To: Capital and Construction Committee

From: Wes Merkle

Date: February 1, 2024

Subject: #2301 Lift Station 10 Pump & Control Upgrades Construction Contract Award

Project No. 2301 includes the substantial upgrades to Lift Station 10 (Ashbrooke), including new pumps, new discharge piping, wet well modifications, new electrical gear, controls, and a backup generator. The purpose of this project is to add redundancy and increase the capacity of Lift Station 10 to buildout at 3.35 MGD.

The following bids were received for the subject project:

Maddox Industrial	\$857,250
Pyramid Design & Construction	\$533,000
Sexson Mechanical	\$846,270
Thieneman Construction	\$1,473,639

Pyramid Design & Construction was the lowest responsive and responsible bidder. Pyramid completed similar work at Lift Station 1 in separate past projects, which is constructed very similar to Lift Station 10. Their electrical subcontractor has done similar work at many TriCo lift stations.

The aforementioned bids include the cost of wet well lining, which was a bid alternate. The existing lift station wet well has been in service for over 30 years and the wet well exhibits areas of concrete deterioration. Pyramid bid \$49,500 for wet well lining. Staff recommends accepting this alternate.

The 2024 Capital Budget includes \$1,200,000 for this project. In January the Board approved purchasing a new control panel for \$83,240. Engineering design, plug valves and check valves, and a flow meter were procured for \$85,115. Staff separately recommends purchasing new pumps (\$86,880), variable frequency drives (\$38,790), and a generator and automatic transfer switch (\$72,551), leaving \$833,424 for construction. Design engineer Commonwealth's estimate for the work is \$872,000.

Recommended Action: Award the Lift Station 10 Pump & Control Upgrades construction contract to Pyramid Design & Construction for \$533,000.



MEMORANDUM

To: Capital and Construction Committee

From: Wes Merkle

Date: February 1, 2024

Subject: #2301 Lift Station 10 Pump & Control Upgrades – Pump Procurement

Project No. 2301 includes the substantial upgrades to Lift Station 10. Staff desires to procure major equipment directly rather than through a construction contract to avoid delays as well as secure better pricing and service.

The following quotes were received for new pumps at Lift Station 10:

Flygt (Xylem Water Solutions USA, Inc.)	\$205,123
Grundfos (American Pump Repair & Service, Inc.)	\$86,880
KSB (Straeffer Pump & Supply, Inc.)	\$157,500

New pumps are sized for buildout capacity of this lift station. All three manufacturers have good reputations. While TriCo has long preferred Flygt pumps for consistency in stocking spare parts and staff familiarity with maintenance and repair, staff has had good experiences with KSB and Grundfos pumps as well. In this case Grundfos also offers a far superior fit hydraulically.

Delivery is anticipated in 4 months, which meets the construction schedule. The overall budget for this project is \$1,200,000.

Recommended Action: Approve purchasing new pumps for Lift Station 10 from American Pump Repair & Service for \$86,880.



MEMORANDUM

To: Capital and Construction Committee

From: Wes Merkle

Date: February 1, 2024

Subject: #2301 Lift Station 10 Pump & Control Upgrades – VFD Procurement

Project No. 2301 includes the substantial upgrades to Lift Station 10. Staff desires to procure major equipment directly rather than through a construction contract to avoid delays as well as secure better pricing and service.

Straeffer Pump & Supply, Inc., the local representative for Danfoss variable frequency drives (VFDs), quoted \$38,790 for new VFDs. Straeffer is the local manufacturer's representative for Danfoss.

TriCo began standardizing Danfoss VLT Aqua FC202 VFDs three years ago. The old standard was ABB ACS 550. Consistency for staff familiarity is critical as operation of this equipment can be highly technical. The Danfoss VFDs have more advanced industry-specific features. The VFDs are in NEMA 4X enclosures meaning they can be mounted outside and do not need to be in an air conditioned control panel or building, saving substantial short term and long term costs.

Delivery is anticipated in 4 weeks, which meets the construction schedule. The overall budget for this project is \$1,200,000.

Recommended Action: Approve purchasing new variable frequency drives (VFDs) from Straeffer Pump & Supply, Inc. for \$38,790.



MEMORANDUM

To: Capital and Construction Committee

From: Wes Merkle

Date: February 1, 2024

Subject: #2301 Lift Station 10 Pump and Control Upgrades - Standby Generator and Automatic Transfer Switch Procurement

Project No. 2301 includes the substantial upgrades to Lift Station 10. Staff desires to procure major equipment directly rather than through a construction contract to avoid delays as well as secure better pricing and service.

The following quotes were received for a new generator and automatic transfer switch at Lift Station 10:

Caterpillar (MacAllister Machinery Co. Inc.)	\$73,776
Cummins Inc.	\$74,961
Kohler (Buckeye Power Sales)	\$67,115
MTU (Interstate Power Systems, Inc.)	\$72,551

Delivery of the MTU generator and transfer switch is anticipated in 5 months, allowing project completion by this fall. Kohler offered a better price however their delivery is 9 months, pushing project completion to spring of next year. The overall budget for this project is \$1,200,000.

Recommended Action: Approve purchasing a standby generator and automatic transfer switch from Interstate Power Systems for \$72,551.



MEMORANDUM

To: Capital and Construction Committee

From: Wes Merkle

Date: February 1, 2024

Subject: #2208 Lift Station 16 Change Order

The subject project included reconstructing Lift Station 16 on the west side of Michigan Road and south of Sycamore/116th Street. This project upsized Lift Station 16 for build-out flows and accommodated the large development at Sycamore and Michigan Road which should be complete later this year. The lift station project construction is nearly complete. During construction, the following items added to the contractor's scope of work. Staff continues negotiating costs and will present recommendations at the C&C Committee meeting February 5.

1. During installation of the new gravity sewer under Michigan Road, crews found a water transmission main in conflict with the new gravity sewer. The gravity sewer had to be installed up to 5 feet deeper than planned, or 25 feet below Michigan Road. The added depth was especially difficult near the water main crossing due to nearby transmission power poles, sidewalk, and storm sewer.
2. The general contractor installed reinforced concrete footings that will support stone columns at the lift station corners. Those columns will be part of the fence enclosure, to be constructed separately, that will match other structures and enclosures within the new development around the lift station. In exchange for upgrading the lift station enclosure, the developer will handle landscaping around the lift station.
3. TriCo owns two existing force mains running along the west side of Michigan Road. North of the lift station jobsite and near the intersection with Sycamore Street the two force mains are presently unlocatable by staff. Staff requested Ottenweller expose these mains and extend tone wire to the surface for future locating needs.



MEMORANDUM

To: Capital and Construction Committee

From: Wes Merkle

Date: February 1, 2024

Subject: Capital Project Updates

The following updates are provided for ongoing capital projects. Please refer to the Capital Project Fact Sheets for background information on individual projects.

- #2202 Lift Station 8 (Laurelwood) Reconstruction

Lykins paved the lift station site in reinforced concrete, which looks great. Fence and gate installation are nearly complete.

- #2204, 2205 and 2206 Lift Stations 11, 14 and 26 Backup Generators

At Lift Station 14 (Austin Oaks), conduit installation restarted after work was delayed for several weeks by parts delivery. Generator installation at Lift Station 26 (Jackson's Grant) is complete. Replacement parts were ordered for the generator at Lift Station 11 (Old 106th Street/Bennett Parkway) to repair the electrical failure.

- #2207 Lift Station 26 (Jackson's Grant) Parallel Force Main

Construction contractor TPI mobilized to the site this month. They are boring their first run north of 116th Street at Jackson's Grant and fusing pipe.

- #2208 Lift Station 16 (Michigan/Sycamore Street) Reconstruction

The manual transfer switch should be delivered soon, and Duke Energy is on site installing power service for the development and the lift station. Construction crews will next finish electrical installation, force main tie-in, and start up.

- #2301 Lift Station 10 (Ashbrook) Upgrades

Staff received bids for construction along with quotes for pumps, VFDs, generator and transfer switch, valves, and flow meter. If a construction contract is awarded by the Board, staff anticipates completion in fall.