

SEWER SWITCH-ON



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CUSTOMER

Grand Haven/Spring Lake Sewer Authority

CONTRACT VALUE

\$1.1 million

LOCATION

Grand Haven, Michigan

START DATE

June 2019

COMPLETION DATE

July 2020

PARTNERS/SUBCONTRACTORS

Triangle Construction (general contractor);
Wolverine Power Systems (temporary
generators); Crystal Flash (diesel fuel)

SUMMARY

Windemuller provided electrical upgrades for the Grand Haven/Spring Lake Sewer Authority systems that will allow the plant to run more efficiently and accommodate future growth. The project included a 41-hour marathon work session, during which our crews shut down the plant, switched it over to backup power, and completed full installations of a new electrical service.

OVERVIEW

The Grand Haven/Spring Lake Sewer Authority is responsible for handling the sewage and wastewater treatment for the communities of Grand Haven City, Grand Haven Township, Spring Lake Village, Spring Lake Township, and Ferrysburg City. The authority was in need of a systems upgrade, both to update aging equipment (the initial system was built in the 1950s) and to put itself in a position to handle future growth with increased efficiency. Working with Triangle Construction, the general contractor for the project, Windemuller completed all electrical upgrades for the existing Sewer Authority facilities, as well as for a new headworks building.

CHALLENGES

The main challenge of this particular project was the need to keep sewer facilities up and running for the vast majority of the job's duration. Windemuller



Continued next page

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needed to install a new automatic transfer switch, a new transformer, and new main switch gear—all while keeping the existing Sewer Authority plant operational. Snowy weather was also a factor, particularly on the one day when we were allowed to stage a brief plant shutdown.

In addition to the challenges of the electrical work that was outlined in the initial contract, it was determined mid-project that the medium voltage switch gear for the Sewer Authority plant was deteriorating and would need maintenance as part of the upgrade. That maintenance fell to Windemuller.

SOLUTIONS

We teamed up with Wolverine Power Systems and Crystal Flash to implement an effective and reliable temporary power solution that could sustain the sewer plant while we worked. Wolverine provided a 500kw temporary generator, as well as a second 350kw generator to serve as backup in case the 500kw generator failed. Crystal Flash provided a portable 500-gallon diesel tank to keep the generators fueled—and was there to fill the tank for our crew when needed.

One very early November morning, starting at 3 a.m., the client gave us a four-hour window to shut down the plant and connect the temporary generator to the plant systems. A snowy and cold November meant that it was snowing for the majority of the shutdown. We brought in canopies and tarps to keep the workstation dry and (relatively) warm while we worked.

Despite the weather—and despite a 6 a.m. generator failure that required a switch to the backup generator—our crews worked fast. Not only did we get the temporary power solution hooked up with time to spare, but by approximately 3 p.m. the next day, we were ready for the Sewer Authority to schedule another shutdown window so that we could disconnect the temporary generators and restore the plant to regular power. All told, the Windemuller team worked 41 continuous hours before, during, and after the shutdown, all to complete the service upgrade.

Finally, to address the deteriorating medium voltage equipment, we brought in our outdoor utility team to conduct the necessary maintenance.

Dave Crisler, the on-site supervisor for Triangle Construction, praised Windemuller for the exceptional things that our crews did on the job, as well as for their extra hard work during the 41 straight hours of the plant shutdown and upgrade. He also commended our employees for their ability to work collaboratively with other trades, as well as with the personnel at the Grand Haven/Spring Lake Sewer Authority.

This new service would not have been successful without the teamwork of ALL the individuals working together, he said.



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