

A HIGHER POWER



WINDEMULLER

windemuller.us

CUSTOMER

Cornerstone University

PROJECT

Grand Rapids, Michigan

VALUE

\$1,009,000

LOCATION

Grand Rapids, MI

START DATE

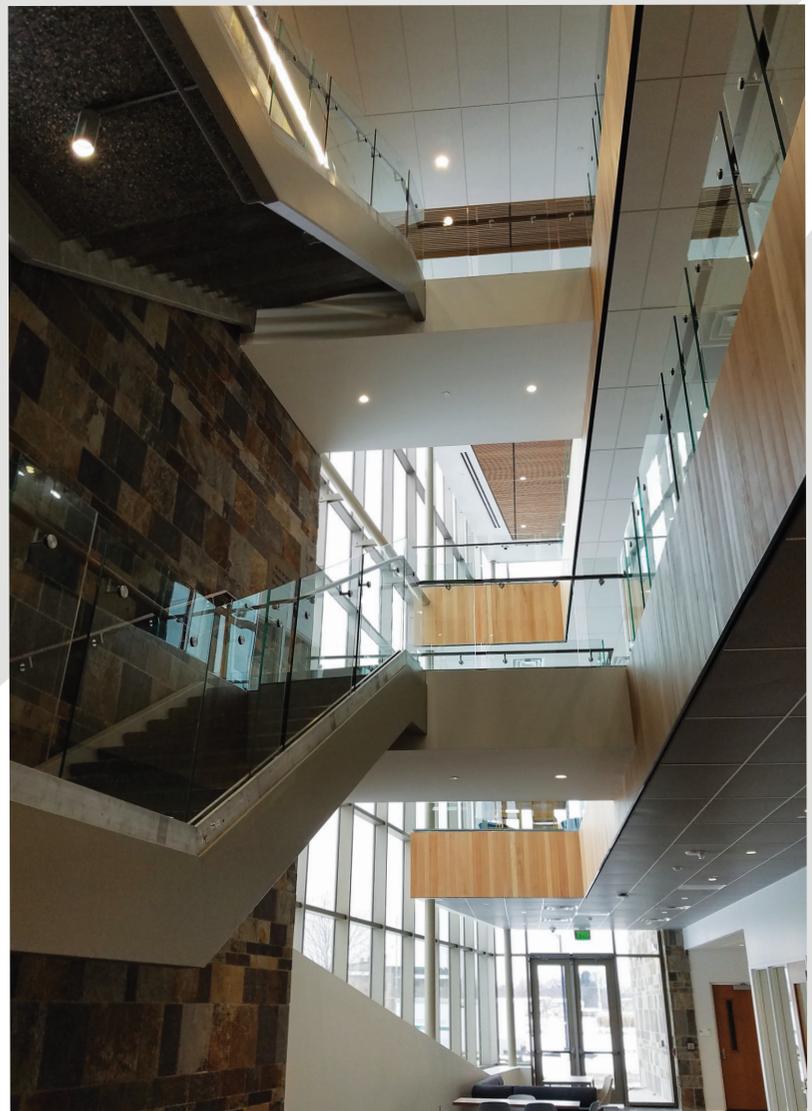
December 2017

COMPLETE DATE

January 2019

PARTNERS

Christman Company (Construction Manager); SimplexGrinnell (fire control panels); DeWitt Trenching (horizontal boring); Quality Precast (catch basins); Entrance Technologies (door security systems)



OVERVIEW

In 2017, Cornerstone University, an independent Christian college based in Grand Rapids, Michigan, was looking to construct a brand-new educational building dedicated to science, technology, engineering, and math (STEM). Windemuller was tapped to handle all the electrical components for the new three-story, 29,500-square-foot facility, dubbed the Jack and Mary De Witt Center for Science and Technology.

For the building itself, Windemuller's role included the installation of a main distribution board, switchboard, three transformers, a 150-kilowatt natural gas generator, and a slew of architectural interior lighting fixture installations, distribution panels, and data drops. We also expanded the beautiful campus' exterior walkways around the campus lake, including outdoor seating areas with recessed step lighting, 17 new light poles along campus walkways, and exterior accent lighting for numerous statue installations.

Continued on back

windemuller.us



CHALLENGES

One of the big hurdles for this project was the need for temporary power systems. In addition to doing our own work for this project, we were responsible for providing power to our subcontractor teams in an occupied campus. Extensive temporary power was required for a team to perform floor polishing for the facility's concrete floor, multiple site trailers, masonry cutting and mixing equipment, and building conditioning.

The project schedule demanded the use of temporary air conditioners on the site throughout the drywall process. The windows for the building hadn't yet been installed, and there was a delay with the central air handling unit. The temporary air conditioners allowed us to provide air flow and a cool working environment so that the finishes could continue, and keep the project on schedule.

Finally, the weather posed some issues. A late winter in 2018 meant that our contractors couldn't pour concrete as soon as expected—something that set the entire project back by several weeks. The new science center is also located in a low-lying spot on campus, which meant our worksite collected a significant amount of runoff after rainstorms or snow melt. The conditions meant that our teams were working in a wet, mucky environment for much of the project.

SOLUTIONS

Bringing in five temporary power systems allowed our contractors to work without overloading the power grid at the worksite. This point was especially crucial, since the building next door to the science center is Cornerstone's athletic facility. We needed to be careful not to trip a breaker while an event was in session at the complex. Our temporary power strategy helped us avoid any potential power outage problems.

To deal with the water runoff issue, we had to run pumps at the site for most of the project timeline. The pumps let us keep water levels low enough at the site to get our work done—though, the mud and muck still made it difficult to transport materials in and out of the building.

Ultimately, we were able to recover from our early weather-related delays to complete the project on time. Cornerstone officially dedicated the building in early December and hosted its inaugural classes starting in January 2019. Cornerstone is hopeful that the science center will help it keep up with the growing demand for STEM majors and curriculum. The university reports that roughly 30 percent of its applicants now fit into these categories.



WINDEMULLER

windemuller.us