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Project of the Month: Connolly Brothers and Gorman Richardson Lewis Architects complete 95,000 s/f expansion for Vicor Corp.

May 20, 2022 - Construction Design & Engineering



Andover, MA Vicor Corp., a leading global high-performance power company focused on developing high-density power modules for over 40 years, completed a 95,000 s/f expansion at its manufacturing facility. The facility is the world's first ChiP (Converter housed in Package) fabrication facility, or "ChiP fab," which sets the standard for scalable high-volume, cost-effective and reliable power module manufacturing in the United States.

The sizable addition to Vicor's existing manufacturing capability will produce Vicor's newer, more advanced power module products, which are in high demand across many growth markets. The ChiP fab enables innovative power solutions that deliver compact and highly efficient modular power units for a wide array of fields, including data, automotive, aerospace/satellite, robotics and unmanned aerial vehicles, to name a few.

"The opening of this first-of-its-kind ChiP fab represents the culmination of years of detailed planning," said Vicor vice president of operations Mike McNamara. "This new capacity is integral to Vicor's strategy and success in fast-growing markets, and as the demand ramps up for Vicor, this factory will help us keep pace with our customers' needs."

Vicor, which has been a "made in the USA" manufacturer since its founding, hired Gorman Richardson Lewis Architects (GRLA), seeking to bring a fresh look and enhanced functionality to their facility. GRLA's design emphasizes glass, bringing significant natural light into manufacturing and common spaces that were previously dark. The Vicor "V" is a common design theme subtly infused throughout the new facility.

"To create the desired wow factor, we wrapped the addition around the main façade using metal panels and curtain wall punctuated with accents of Vicor's corporate blue," said Scott Richardson, principal and co-founder at GRLA. "The results are a striking new main entrance with a high-tech look."

Connolly Brothers provided pre-construction and construction management services, working on an aggressive schedule throughout the COVID-19 pandemic without missing a beat while prioritizing the health and safety of all. The manufacturing space features a robust concrete slab, intricate IT and HVAC systems, and an electrical system with significant redundancies to ensure continuity of operations. The reinforced flooring enables Vicor to rotate specialized machinery with plentiful power options, a move which will help "future proof" the facility. The manufacturing area design also isolates machines from vibration to optimize production processes.

Vicor, which employs approximately 900 people at its Andover facilities, is designed for zero wastewater and air discharge. All wastewater is recycled into ultra-pure deionized water that is reused in normal operations. It is estimated this new sustainable wastewater process will conserve up to 20 million gallons of water each year, saving money while protecting the environment.

In addition to Connolly and GRLA, the project team included mechanical, electrical, fire protection and plumbing design by WB Engineering, civil engineering by Meridian Associates, and structural engineering by H+O Structural Engineering.

“It was an honor to build on behalf of a company that is at the forefront of ‘made in America’ manufacturing and great jobs in our region,” said Jay Connolly, president of Connolly Brothers. “We wish Vicor many more decades of success in its newly expanded ChiP fabrication facility.”

The project team included:

Connolly Brothers - Construction Manager
Gorman Richardson Lewis Architects - Architect
Norgate - Structural Steel
Meridian Associates - Civil Engineering
Hampshire Fire Protection Co., Inc. - Fire Protection
Anchor Excavating Corp. - Sitework
WB Engineering MEP/FP - Engineering
Mechanical Construction Services, Inc. - Plumbing/HVAC

Vicor provides modular power solutions for world-changing technologies. As the leader in high-performance power modules, Vicor enables customer innovation with easy-to-deploy modular power system solutions for power delivery networks that provide the highest density and efficiency from source to point-of-load. Vicor serves customers in enterprise and high-performance computing, industrial equipment and automation, robotics, UAVs, vehicles and transportation, satellites, and aerospace and defense.

Connolly Brothers, Inc. is a construction management firm serving private commercial, industrial, and institutional clients. A five-generation family business established in 1880, Connolly is based in Beverly, Mass. and operates throughout the New England region. For more than a century, clients have turned to Connolly for all aspects of their construction projects, from planning and design to real estate development.

Founded in 1976, Gorman Richardson Lewis Architects offers a full range of architectural, planning, interior design, sustainable design, and building envelope services. GRLA develops workable, intelligent design solutions and documents them clearly, seeking form and function to support their clients' vision. GRLA's diverse client base includes corporations, municipalities, colleges and universities, cultural institutions, and property developers and managers.