

UNDERFLOOR SERVICE DISTRIBUTION

by Tate Access Floors

Great River Energy
Maple Grove, MN

OWNER PROJECT

166,000 sq ft

PRODUCTS USED:

ConCore 1250
Underfloor HVAC



"When designing our new headquarters, we evaluated every aspect of the building to ensure it was as efficient as possible. We chose a geothermal heat pump system that uses an adjacent lake for a heat source/sink because it increases the HVAC system's efficiency. We also chose an underfloor ventilation system because it even further improves total system efficiency, increases employee comfort, which increases our employees' health and productivity. We believe it is the first time that a geothermal system has been combined with underfloor ventilation in the United States. The entire Great River Energy building is a model of sustainability and energy efficiency, and the innovative flooring is an important component."
-Gary Connett, Director of Environmental Stewardship and Member Services, Great River Energy

TATE AUTHORIZED DEALER

Bartley Sales
Minneapolis, MN

ARCHITECTURAL FIRM

Perkins+Will
Minneapolis, MN

GENERAL CONTRACTOR

McGough Construction
St. Paul, MN

First LEED Platinum commercial building
in Minnesota



Subject

Great River Energy Headquarters

Great River Energy is a generation and transmission (G&T) cooperative that provides wholesale electric service to 28 distribution co-ops. They are committed to conservation of resources through environmental stewardship. Part of their environmental program includes projects that protect and enhance our natural resources; therefore, building a sustainable headquarters facilities was extremely important to them. The Owner determined they wanted to make a statement to their clients about reducing energy use and were looking for a demonstration environment to show what could be done. There are less than 40 LEED Platinum projects in the world at this point in time and LEED Platinum became the goal for this project. As a result, their new headquarters is one of the most energy-efficient and sustainable buildings in the country, resulting in the award of LEED Platinum from the USGBC.

Great River Energy's vision was to take the systems approach—to design a building where all the components worked together for maximum energy efficiency. This project emphasizes indoor environmental quality while reducing energy use, utilizing a number of the latest advancements in technology that help set the new standard for sustainable building design and construction. Features include a low-energy HVAC system design using Tate's access floors and underfloor displacement ventilation, and a geothermal heating and cooling system that utilizes the adjacent Arbor Lake. Underfloor displacement ventilation provides a 30% increase in fresh air within the breathing zone and the air quality is higher, while still using energy 45% - 50% below the Minnesota Energy Code. The building also has an on-site 200kW wind turbine that transforms wind energy into electricity and stands at 160 ft tall. Excess electricity from the wind turbine is distributed onto the local electric grid. Solar panels provide nearly 15 percent of the building's total electric use and the building will use 40 percent less energy for lighting than similarly sized buildings using standard technology. Through teamwork and dedication to "green" building principles, the headquarters for Great River Energy will serve as a shining example of sustainability.

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