



# NORTHWESTERN MUTUAL FRANKLIN CAMPUS

## PROJECT SNAPSHOT:

**Description:**  
HVAC, plumbing

**Architect:**  
Eppstein Uhen Architects

**Owner:**  
Northwestern Mutual

**Engineer:**  
Affiliated Engineers

**General Contractor:**  
Opus North Corporation

**Completed:**  
April 2004



Photo Courtesy of Northwestern Mutual. Copyright 2004.

*Northwestern Mutual completed work on the two-year, first phase project of its new Franklin, Wis., campus in April 2004.*

## GRUNAU COMPANY TURNS HVAC UPSIDE DOWN WITH UNDERFLOOR SYSTEM AT NORTHWESTERN MUTUAL

### PROJECT OVERVIEW

Northwestern Mutual is developing a campus in Franklin, Wis., to accommodate their expanding needs over the next 10-20 years. Work was completed in April 2004 on the two-year, \$125 million first phase of the project, a half-million square foot low-rise office building.

### SITUATION

Grunau Company's mechanical department helped Northwestern Mutual achieve part of its overall strategy of creating a highly efficient and cost-effective facility when it installed an underfloor heating, ventilation and air conditioning (HVAC) system instead of the standard overhead system. An underfloor system places the heating and cooling vents under a raised floor instead of above the ceiling. Most notably, this system uses personal vents that allow individuals to control the climate at their work stations. In addition, building layouts are more easily configured. An underfloor system also helps eliminate dust and draft problems, improving indoor air quality because the clean air is supplied closer to occupants. It reduces the amount of duct work required, potentially reducing floor-to-floor height, creating a shorter building and reducing hard construction material costs such as steel and glass. The system also has the potential to save energy costs in its mechanical systems. These potential savings can include warmer chilled water temperature, reduced fan energy and reduced reheat energy.



*The Grunau mechanical team installed an underfloor HVAC system, placing the heating and cooling vents under a raised floor instead of above the ceiling like a standard overhead unit.*



Wisconsin Builder magazine recognized the Northwestern Mutual – Franklin Campus project as one of Wisconsin's 20 best projects of 2004.

## RESULTS

Grunau researched the underfloor system extensively prior to installation due to its unique nature. "The underfloor system was one of the things for which Grunau felt particularly responsible," said Jeff Kuhnke, Grunau Company project manager. "We spent a lot of time learning how to best do our job. We took it upon ourselves to help coordinate the other trades' work with the system." Grunau's extensive research and meticulous coordination with the other trades ensured maximum productivity and the highest quality of work to maintain the sophistication and integrity of the building.

*Air from the underfloor HVAC system at Northwestern Mutual's Franklin campus is chilled through high-efficiency, chlorine-free centrifugal chillers.*



Photo Courtesy of Northwestern Mutual. Copyright 2004.

*The half-million square foot low-rise office building is designed to meet Northwestern Mutual's expanding needs over the next 10-20 years.*

## ABOUT GRUNAU'S MECHANICAL TEAM

Grunau's mechanical team offers a full range of services from HVAC and plumbing to temperature controls. With our engineering services team, we are able to design, fabricate and install a wide array of systems. Whatever your project, our technicians identify possible challenges and create solutions to prevent them. We look at your project strategically, continually monitoring the interaction between our team and other trades to ensure the job is done well.