

# Daily Herald

Big Picture . Local Focus

## College hall so 'green,' it doesn't even need a gas furnace

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On one of the coldest days of the winter, crews at North Central College in Naperville bunched around the equipment drilling five dozen holes 650 feet into the earth.

"The guys sitting there were like penguins, all huddled together," remembers Glenn Behnke, project manager for Mustang Construction in Naperville.

When many Americans took off the Friday before July Fourth, more than three dozen construction workers were working on the project as the last piece of precast concrete was positioned.

Now it's just a race to complete the building by the Sept. 14 start of school, and finding out if all the environmental efforts going into the "green" building will earn gold LEED (Leadership in Energy and Environmental Design) certification from the U.S. Green Building Council.

The new building will be one of a kind, promises Ted Slowik, director of public relations and media relations for the college. Instead of building a dorm and a recreation center, the college is combining both structures in one \$25 million building, with the 265-bed residence hall wrapped around a state-of-the-art indoor track, gym and training facility.

"It's almost like living in a fitness center," says Michael J. Hudson, North Central's assistant vice president of operations, as he dons a white hard hat to lead a tour through the 21st Century structure.

"That whole building was made out of products that come from Illinois and the surrounding area," says Charlie Saville, vice president of sustainability for Sieben Energy Associates of Chicago and LEED consultant for this project. The innovative, energy efficient walls made by Dukane Precast of Naperville are new to the United States, says Saville, who helps the building meet environmental and conservation guidelines that earn points required for LEED certification,

Making space for a covered bike storage lot in the side of the building earns a credit. So do the nearby bus stop, the white reflective roof, energy efficient lights, recycled building materials and glues, sealants, paints and carpets that emit little or no volatile organic compounds that contribute to greenhouse gases.

The most impressive part of this building might be its heating and air-conditioning systems.

"There is no natural gas in the building," Behnke says.

Instead of using a gas furnace, the facility "will be one of the largest buildings in the Midwest to be heated and cooled using a geothermal system," Slowik says.

"It's all about heat transfer," says Saville, explaining how water pumped from deep underground is warmer than the building in the winter and cooler in the summer. Each room has a thermostat to control the cooling system above the door and the radiant heat running through the floor. The building is so energy-efficient that the hot water runoff from showers is used to warm the pipes carrying clean water.

The school expects to recoup the cost of the green technology through energy savings in the first seven years of operation, Hudson says.

In addition to Sieben Energy Associates, Mustang Construction and Dukane Precast, the project involves Buchar, Mitchell, Bajt Architects of Joliet, consulting architects Loeb, Schlossman & Hackl of Chicago, Barbara Heintz of Barbara's Interiors of Naperville, the engineering firm CEMCON of Aurora, and Architectural Consulting Engineers of Oak Park.

The first green building on campus, the new structure no doubt will join the library at Judson College in Elgin on the list of LEED certified college buildings in the suburbs.

"Illinois is certainly a leader in the green-building movement," notes Marie E. Coleman, communications coordinator for the U.S. Green Building Council. "There are 128 certified commercial projects in Illinois, 42 of which are gold certified."

When finished, the building will be painted to look as if it were made of bricks and limestone to blend in with other buildings on campus. The interior will look new, but it won't smell new. As part of the green requirements, the building will be flushed with air to remove any lingering odors.

"We need to get rid of that new-car smell, which is really bad," Slowik says.

When this project is complete, the college will look into making existing buildings more green, Hudson says.

"This," Saville concludes, "will be their showplace."