CASE STUDY
THE MCLEAN COUNTY UNIT DISTRICT NO. 5

Preserving Learning by Reducing Utility Costs

Working together to provide a win-win, cost-effective solution for today’s school HVAC retrofit.

If you live in the McLean County Unit District No. 5 one thing is for certain; you can be sure that your children will receive one of the finest educations available.

With one of its high schools ranked in the “Top 50 Public High Schools in Illinois” and listed in U.S. News & World Report’s “Nation’s Top Schools,” Unit District No. 5 is the place where excellence in education takes on a new meaning.

But excellence doesn’t come without a price. In today’s economic environment, maintaining and improving upon today’s school facilities remains one of the most significant challenges for administrators and educators alike.

That’s why officials turned to a solution that proved both unique and highly practical when six schools in the district faced antiquated HVAC systems nearing the end of their life-cycle.

CM Engineering and Earth City Distributing understand the challenge of maximizing facility investment dollars when it comes to upgrading and retrofitting school facilities. They also realize the key role those facilities play in keeping a school educationally competitive.

The first schools from the Unit 5 School District to undergo retrofits included Oakdale Elementary and Glenn Elementary. Each school had ceiling limitations which made a conventional rooftop boiler-chiller system impractical.

“We wanted a system that would be easy to service and maintain, provide cooling and be energy efficient,” said Jeff Monahan, Director of Maintenance for McLean County Unit District No. 5.

BARD’S CONTRIBUTION

“We had experienced earlier success working with a school in McComb, Illinois where using a new type of piping system and the Bard QTEC ground source heat pump saved us over 50% in installation costs,” said Kirk Mescher, President of CM Engineering. “Using Bard’s QTEC product in the Unit 5 School District applications was not only practical, it was the win-win solution in terms of reliability and efficiency in operation.”

Between 2006 and 2008, 112 Bard QTEC units were installed in 6 schools.

“Between CM Engineering’s unique design approach and Bard’s very efficient QTEC unit, the installation at all of the Unit District No. 5 schools couldn’t have gone any better,” said Mike McManus, owner of Earth City Distributing, a local Bard distributor. “Not only are the units energy efficient and incredibly quiet when operating, they can be easily accessed for service.”

WHY BARD?

Over thirty years ago, Bard began solving the comfort needs of schools across the country by providing wall-mounted heating and cooling equipment. Bard’s products offer a combination of quiet operation, and energy efficiency, with unsurpassed quality and dependability that make them the #1 choice for schools.

With three, state-of-the-art manufacturing facilities and a global distribution network, Bard’s commitment to quality and product innovation begins with its commitment to research and development. With features like self-diagnostics and self-programming energy monitors, Bard delivers products that provide tangible solutions for any school.

Jeff Monahan
Director of Maintenance
“What we got by using Bard’s QTEC product was an HVAC system that not only provided cooling but did so while also providing more than a 40% savings in total utility costs.”

Mike McManus
Owner of Earth City Distributing
“Between CM Engineering’s unique design approach and Bard’s very efficient QTEC unit, the installation at all of the Unit District No. 5 schools couldn’t have gone any better.”

One of six Unit District No. 5 schools retrofitted to include Bard’s QTEC HVAC units.

www.bardhvac.com
What we got by using Bard’s QTec product was an HVAC system that not only provided heating and cooling but did so while also providing more than a 40% savings in total utility costs, without upgrading windows or insulation,” said Jeff Monahan.

The QTec’s serviceability is also a contributing factor to Unit District No. 5’s overall success.

“I love the fact that the units are virtually maintenance free,” added Monahan. “They’ve basically reduced our service calls to near zero.”

“Whenever any of our school clients are open to the idea of having an in-room unit installed, we always spec the Bard QTec units; in fact in all the years since we’ve been in business we’ve never installed anything else inside a classroom,” said Mescher.

With Unit District No. 5, CM Engineering initially gave them an energy estimate that proposed they could provide the schools with heating and cooling at no additional operating cost.

“Not only were we able to achieve that goal, but because of the Bard QTec units, we were able to surpass it, helping the schools reduce their overall utility costs significantly, in some cases by over 40%,” said Mescher. “For any school, anywhere in the country trying to save money on installation, service and energy costs, not to mention lowering overall ambient noise in a classroom, these are significant enough results that simply can’t be ignored.”

Success with the retrofit of their six schools has in fact led McLean County Unit District No. 5 to approve installation of additional Bard QTec units in a seventh school during the summer of 2009.

Bard’s QTec unit is designed to be installed inside the classroom – fully engineered to be quiet, comfortable and aesthetically pleasing. QTec units are designed and tested to operate at 20% above federal standards with easy installation features that make servicing fast and simple.

Bard’s QTec units can provide the following features:

- A one-piece factory unit with individual room climate control
- Designed for fast installation and easy servicing
- Sound deadening insulation
- Simple utility hookups
- Integrated energy recovery ventilator
- Controlled dehumidification
- A rating for efficiency that is 20% above Federal Standards

Contact CM Engineering for more information on the “One-Pipe” system design used in this application. www.cmeng.com