

**CASE STUDY**  
MONTGOMERY COUNTY SCHOOLS



Green Ridge Elementary School in Biscoe, North Carolina.

## Montgomery County Schools – Enhancing the Foundation for a Future of Learning

### The Bard Quiet Climate 2 Helps Green Ridge Elementary School Prepare its Future Generation of Globally Competitive Citizens

You won't find bustling cities or lots of traffic in Montgomery County and that is just the way residents like it. Montgomery County is located in south-central North Carolina, an hour drive from Charlotte and just under two hours from Raleigh and Fayetteville. Eighty percent of the county comprises the geologically pristine Uwharrie National Forest, which provides a beautiful, scenic backdrop for quiet, country living.

With children under 18 accounting for just over 25% of the local population, Montgomery County Schools' mission is to ensure that all students are prepared for the opportunities of tomorrow by addressing the challenges of today.

One of these challenges was directly related to a new elementary school – Green Ridge Elementary School - the district was planning to build in the town of Biscoe.

"We recently completed building another school in the district that used a combination boiler/chiller to heat and cool the school", said Bill Mingin, Maintenance Director for Montgomery County Schools. "Unfortunately, we found the high cost of fuel oil combined with the high cost of installing this type of system, forced us to come up with a better, more cost-effective solution for Green Ridge."

That's when Montgomery County Schools turned to Drayton Stott of All Seasons Commercial HVAC Distributors, the local Bard dealer.

operational noise and costs within the new building even more."

That's when All Seasons recommended utilizing the wall-mounted design of Bard's Quiet Climate 2 unit – albeit on the outside of the building.

"The Bard Quiet Climate 2 units are some of the quietest HVAC units on the market today," said Stott. "Green Ridge Elementary School also benefitted from a reduction in overall construction costs, including cement work, steel framing, the cost of running ductwork and construction of a maintenance and mechanical boiler/chiller shed."

Utilizing the Quiet Climate 2, Stott was also able to also provide each room and teacher with individual control over their room's temperature.

"This enhanced operational efficiency in several ways, including better and more even temperature control throughout each classroom," said Mingin. "Plus, if any particular unit needed maintenance, it wouldn't mean that the whole system had to be shut down. By having the units installed on the outside of the building we could work on the units without disturbing the teachers or the students inside. The school had the added benefit of turning units off or on as needed depending on whether or not individual rooms were in use."

Another big improvement was the overall cost and installation of the Bard system.

"Our mission is to provide our students with the educational building blocks that will prepare them to ultimately compete in a global economy," said Donna Kennedy, Principal of Green Ridge Elementary School. "Working with Bard, we were able to save Green Ridge Elementary over



"Our experience with Bard products over the years in retrofitted schools has been excellent, and the Green Ridge Elementary School results confirm that Bard performs just as well in new schools as they do in older, existing school buildings," said Bill Mingin, Maintenance Director for Montgomery County Schools.

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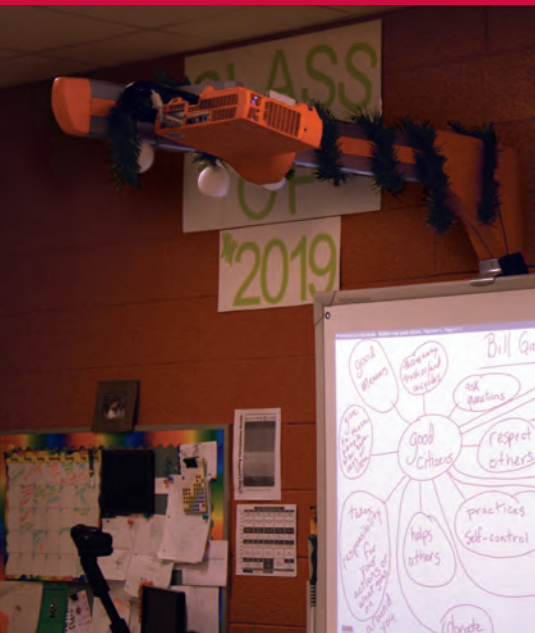
#### **BARD'S CONTRIBUTION**

"I was very familiar with Bard because we had great success using some of their wall mounted units on several of our retrofitted schools," said Mingin. "We were hoping, however, to reduce some of the overall





Bard's Quiet Climate 2 units were incorporated into the architects overall design for the new school.



Utilizing the savings provided by Bard's Quiet Climate 2 system, Green Ridge Elementary School was able to install smart boards in every classroom.

\$800,000 in installation and purchasing costs over a conventional system. That savings gave us the opportunity to purchase a complete technology package for our school, including smart boards and computer labs in every classroom.”

“As a former AC service technician I have to say that I’m extremely impressed with the Bard Quiet Climate units– they actually make no noise at all,” said Matt Wolf, a teacher at Green Ridge Elementary School. “They make teaching and learning a quiet, comfortable experience.”

### 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.

### MONTGOMERY COUNTY SCHOOL'S RESULTS

“With the Quiet Climate 2 units our teachers and students never have to worry about room temperature interfering with classroom learning,” said Kennedy. “Whenever we have a weekend community activity, teachers tutoring in off hours, or classes going on night, we know we can make those spaces comfortable without wasting energy in unused classrooms.”

“Our experience with Bard products over the years in retrofitted schools has been excellent and the Green Ridge Elementary School results confirm that Bard performs as well in new schools as they do in older, existing school buildings,” said Mingin “Bard’s ability to give us individual room dehumidification is another benefit that’s hard to quantify – we just don’t have any of the problems associated with high humidity.”

## QuietClimate<sup>2</sup>

Bard’s Quiet-Climate 2 heat pump is the most innovative wall-mount ever made. Designed specifically to provide superior energy efficiency and quiet operation in classrooms, the Quiet Climate 2 uses green refrigerants and provides operating sound levels that are 20 to 35 times quieter than a standard wall-mounted heat pump.

### Bard’s Quiet Climate 2 can provide the following features:

- Higher energy efficiency and greater comfort through step-capacity technology
- Unmatched acoustical performance
  - Sound levels vary with applications and construction techniques, but integrated operating sound levels as low as 35 dbA have been achieved when combined with Bard Quiet-Climate acoustical accessories
- Improved ventilation
- Enhanced IAQ
  - Continuous blower operation – without noise – keeping fresh air constantly in the classroom
  - Optional UV lighting which keeps the coils free of bacteria and mold
  - Enhanced filtration capabilities
- A one-piece factory unit designed for fast installation and easy servicing
- Additional sound curbing accessories including an isolation curb and return air and supply air plenums

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