



*Altman + Barrett Architects*

## Clinch County K-12 School Uses Lightweight CMUs for Safety and Performance

The new Clinch County K-12 School in Homerville, Georgia, stands as a strong example of how thoughtful material selection can enhance safety, durability, and efficiency in educational facilities. While students and staff may never notice the concrete masonry units (CMUs) within the walls, the lightweight block play a critical role throughout the campus's three buildings.

One of the most important advantages of these lightweight CMUs is their superior fire resistance. Standard eight-inch units provide a two-hour fire rating, significantly exceeding the performance of traditional normal-weight block. This added layer of protection is crucial in school construction, where safety standards are stringent and the well-being of occupants is a top priority. By incorporating lightweight CMUs, the design team ensured that the facility meets modern fire safety requirements while providing peace of mind for students, staff, and the community.

The project, designed by Altman + Barrett Architects and constructed by JCI General Contractors Inc., required over 300,000 lightweight gray CMUs in various sizes, including 4-inch, 6-inch, 8-inch, and 12-inch units. These were manufactured by Scruggs Concrete Brick & Block at its Valdosta, Georgia plant.

A key factor contributing to the quality of these block is the use of "block fines," finely graded particles produced during the crushing and screening of the lightweight aggregate. Because the aggregate is manufactured, it can be carefully processed to meet precise specifications. The result is a smooth, dense surface texture that improves the overall finish of the



*Scruggs Concrete Brick & Block Valdosta, Georgia*

block. This makes them especially well-suited for interior walls, where they readily accept paint with minimal surface preparation, saving both time and labor during construction.

Beyond aesthetics, the lightweight CMUs also improve construction efficiency. Weighing approximately 27 to 28 pounds, compared to 32 to 35 pounds for traditional block, they are significantly easier for masons to handle. This reduced weight leads to less physical strain and allows workers to lay more block per day, ultimately contributing to faster project completion and increased productivity on the jobsite.

Durability was another important consideration in the school's design. Features such as reinforced walls, bullnose corner blocks, and built-in cubby spaces were incorporated to withstand the heavy daily use typical in school environments. The rounded corners help prevent chipping, while the reinforced



structure ensures the walls can support the designed loads.

In addition to these physical benefits, the lightweight CMUs contribute to improved thermal performance, helping regulate indoor temperatures and supporting energy efficiency. Combined with modern safety measures such as surveillance systems and controlled access, the school provides a secure and comfortable learning environment.

*Courtesy: JCI General Contractors Inc*

Overall, the Clinch County K–12 School demonstrates how lightweight concrete masonry can deliver long-term value. By combining fire resistance, durability, ease of construction, and energy efficiency, the project serves as a model for safe, cost-effective school construction.