

CONCRETE MAKES THE GRADE

Goldsmith Schiffman Elementary School
Huntsville, AL



In the last few decades, some notable new concrete products have come into the market; and they've added to concrete's usability repertoire but will never replace the basics. It may be about as "old school" as concrete gets, but concrete block is still used quite consistently in many large-scale, institutional projects. Therefore, if the project on order is a structure required to house hundreds of energetic kids safely and securely and last for many years to come, concrete block is often the go-to material. According to Robert Mercer, Senior Architect at Chapman Sisson Architects in Huntsville, concrete block is the building material that best meets the needs of constructing schools that will stand the test of time as well as the inevitable wear and tear brought on by hundreds of young students using the building daily. "Some people use gypsum board and metal framed board in schools," Mercer said. "But over and over again,

we've found that you just can't beat concrete block for durability, and so it is the material of choice for schools since they house so many kids. It just holds up better and longer."

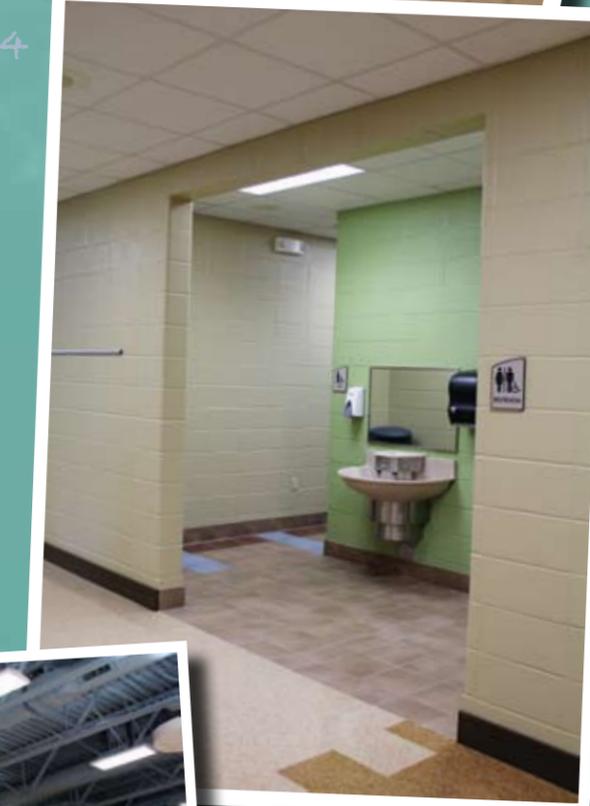
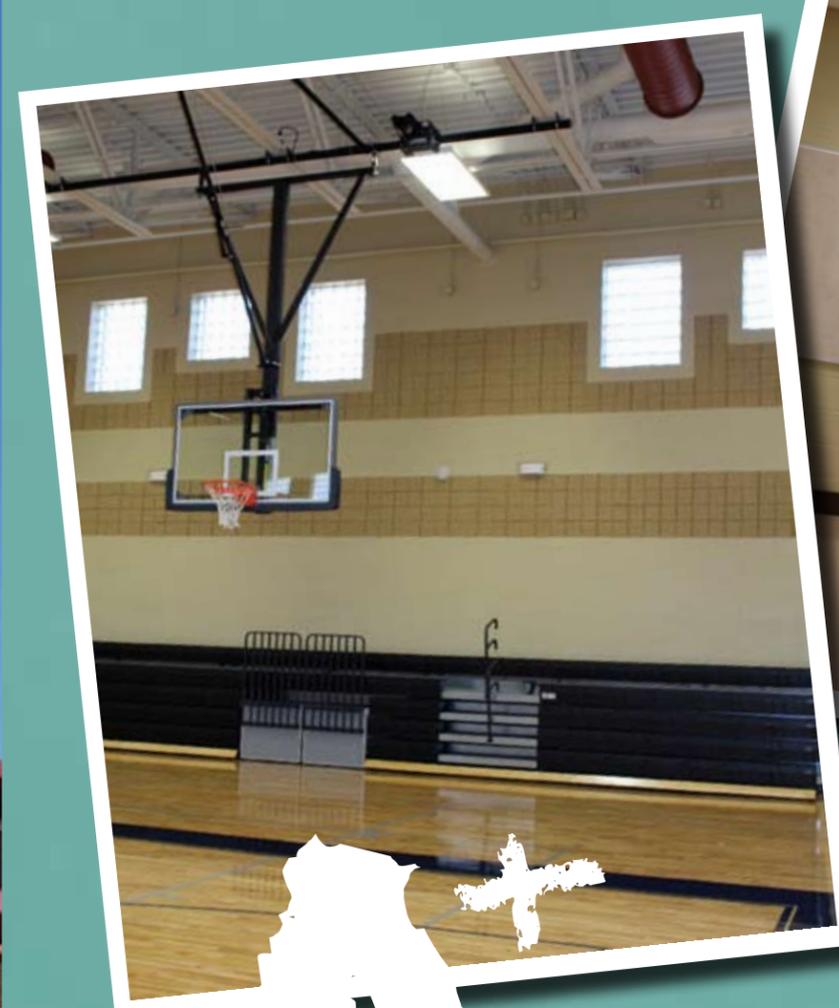
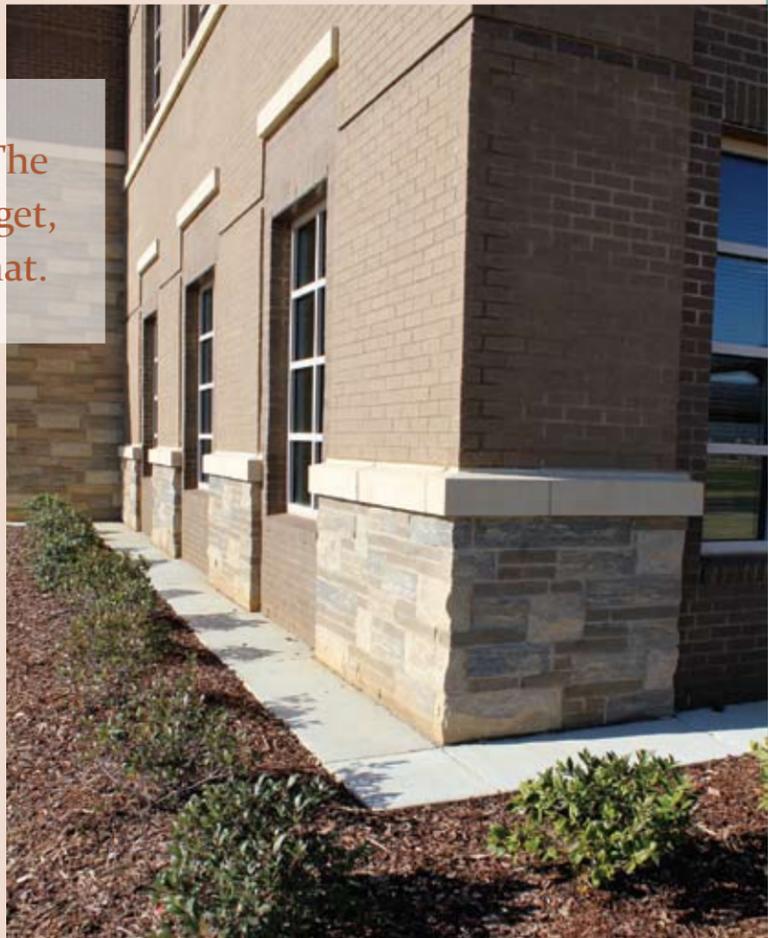
So when Huntsville City Schools asked Chapman Sisson to create a new elementary school, it was concrete block, as well as a few other forms of concrete, that topped the materials list and influenced the design. Mercer was the project architect/designer on the project. Completed in December 2010, the 126,000-square-foot school building can accommodate up to 800 students and took 18 months to construct. Mercer's experience with projects of this type and the material he most often uses for them made the entire process a smooth one. "Our firm does a lot of institutional work including churches, airports and buildings for the healthcare industry, so we are very familiar with concrete products and the benefits they bring to

the table,” Mercer said. “The majority of this school is concrete block with brick veneer with precast concrete water tables and window heads.”

The use of concrete, especially the concrete block, allowed Mercer to complete the project with less hassle and under budget. “Concrete can help keep costs down,” he explained. “The school came in \$1.8 million under budget, and the concrete block was a part of that. Using concrete also limited the trades utilized on this project. When you use only concrete and brick, your major materials are masonry and concrete, so you keep the number of subcontractors needed down and that makes the project easier to manage.”

While the use of concrete was an easy decision for the school, some of the other accent elements are less common in school settings and add to this structure’s appeal. “Many school districts use a standard prototype from which all schools in the district are designed and constructed,” Mercer said. “But in Huntsville, it’s not like that. Huntsville City Schools likes each school to look different and truly have its own character.”

This allowed Mercer some freedom of expression, and when he sat down to draft his vision of the school, he let its surroundings guide his hand. “This school is located near a nature preserve, so I tried to incorporate as many natural elements as I could into the design of school,” Mercer said. “I wanted to highlight the front entry, so we did tapered stone columns and laminated timber beams.” This natural



1 + 1 = 2
1 + 2 = 3
1 + 3 = 4

2 + 1 = 3
2 + 2 = 4
2 + 3 = 5

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wood and stone look was carried inside the building throughout the lobby and in the cafeteria.

Stained concrete was also incorporated into the cafeteria. “In a school, easy clean-up and maintenance are key, so many of our decisions were based on that. In light of that, the stained concrete in the cafeteria area was a simple choice,” Mercer said.

Incorporating cast stone accents on the exterior was also an effortless decision, as Mercer explained. “The cast stone sits in great contrast to the brick, so it made sense from an aesthetic perspective,” he said. “It offers a really natural look and helped the building blend in



with its surroundings. Of course, being concrete, it made sense from a durability perspective as well. And it was cost-effective too. In the amount we used it, it was no more expensive than using brick.”

Concrete added to the exterior in one more way. Poured in place, stained concrete was used for the columns of several drop-off canopies. “The columns really blend well and mimic the look of the rest of the school” Mercer said. “It was a very effective use of that material.”

The new Goldsmith-Schiffman Elementary School first welcomed approximately 430 excited K-5 students in early January 2011. With its rustic, yet refined look playing beautifully off the mountains rising

in the background, the school has not a trace of the stereotypical “school” look. Its stunning appearance has certainly pleased the client. But, what do the kids who’ll see it and use it every day think?

“The children, families, and our faculty and staff are extremely excited about making Goldsmith-Schiffman their new home,” said Brad Scott, principal of the school. “The children have particularly mentioned how cool it looks since it is similar to the appearance of a lodge. The warm earth tones accompanied by all of the wood and stone have also provided a nice feel to the building.”

At first glance, the wood timbers and imposing stone columns incorporated into the front exterior of the school especially stand out,

but Scott stressed that concrete, both what can and cannot be seen, was definitely the right choice here and a major player in the school’s appeal. “I believe that the building and its use of concrete, rocks and wood have provided a real showcase for our community to enjoy,” he said. “The use of concrete as a significant material in this building has worked well. More specifically, it adds a strong, modern appearance. In addition, I believe that it will be manageable in reference to maintenance, and it would be realistic to expect for it to be durable for generations to come.” ■ Jennifer Kornegay