

GREEN ON THE TOP CONCRETE ON THE BOTTOM

How the RSA Has Improved the Montgomery Skyline

They are iconic in downtown Montgomery, Alabama, and in many other cities throughout the state as well: properties developed by the Retirement Systems of Alabama. They are easily recognizable for their striking modern architecture, topped by a signature green roof. Invested in enriching the cities of Alabama through development of downtowns and tourism, RSA President and CEO Dr. David Bronner's vision can easily be seen with a glimpse at the state's major skylines.

The latest and arguably one of the most impressive in this collection is the new RSA Headquarters building,



located at 201 South Union Street in Montgomery. Completed in September 2008, the structure encompasses 300,000 square feet, including eight floors and a basement.

Concrete is a primary material used in design and construction, including pre-cast concrete with honed and plain finishes, as well as a sandblasted finish. Pre-cast decorative concrete also embellishes balconies around the building's top floor and around each corner, as well as flanking the front entrance. There are decorative pavers in an elevated



plaza area around the parking deck, which also was done with precast concrete.

Concrete also factors heavily into the building's core construction, utilizing such materials as cast in place retaining walls, concrete forming, concrete reinforcing, concrete unit masonry, precast concrete retaining walls, and segmental concrete retaining walls. This is a structure built to last.

"We use concrete first of all because its fireproof," said John Gandy, Architect, with PH&J Architects, Inc., which designed the RSA Headquarters and several other RSA buildings, including the Center for Commerce and RSA Tower, probably among the most recognizable structures in the city. "Concrete also is acoustically good and it's pretty earthquake-proof."

Additionally, concrete lends security. There are many special security features in the design of this particular RSA building, most of which Gandy prefers not to reveal. As the company's headquarters, he said, it was extremely important to protect the building and its occupants,

and concrete was a perfect material for this priority.

"Concrete is very sound," agreed Jack Daniels, design engineer on the project for Blackburn & Associates. "It will be there for a long time. It's hard to really brace a steel building that's eight stories, so using concrete shear walls is much easier in a building like this," he said. "And, it was practical for this application, being an office building, this is a good material. The price was definitely competitive if not more economical."

Some site challenges included the need for a fairly tall retaining wall, between 20-28 feet tall, and the construction site was confined on a busy downtown corner between neighboring properties. Blackburn designed a freestanding cantilever retaining wall, and used auger cast tiles for the foundation system.

The project also incorporates post-tension girders, which is a higher strength, 5,000-PSI concrete. Conventional reinforced concrete provides mild reinforcement with rebar. Post tension is installed the same way, with rebar, Daniels explained, but when the



concrete reaches 3,000 PSI they allow the concrete to stress cables that are placed in the concrete. This increases the span that can be achieved without additional internal supports, as well as providing overall greater strength to the structure.

The two first-floor lobbies are airy, open spaces as a result of using post-tension construction.

“We have a 48-foot span,” Daniels said. “You couldn’t do this with regular reinforced concrete. You’d have to use more columns. Owners these days like to have wider, more open spaces, and post-tensioning is allowing that to happen.”

To tie the exterior look and feel of the new RSA Headquarters visually to other RSA structures in Montgomery, Gandy selected similar materials for each. Consistency was important.

“The stones are the same for all the buildings, and the pre-cast concrete is the same finish on all of them,” Gandy said. “It’s a very smooth finish. One of the challenges for this project was to fit in with what they’ve already done, to fit that into the design of this building. We’ve used the same materials throughout, but used them in a different way than they’ve been used prior to this.”

On the other end of that spectrum, although each building is similar, Gandy said he worked hard to also make each distinctive. They should immediately communicate that they are part of the RSA family, but also stand on their own. This was particularly important for RSA’s signature building, its headquarters.

“One of the real challenges was to give the building a presence,” Gandy said. “I think I’ve done that pretty well.”

Dr. Bronner himself seems pleased with the combination of strength and beauty afforded by concrete. “I love to build the 50-year building that will look outstanding 100 years from now!” he said.

■ Wendi Lewis



