



Innovative Tile and Stone
Installation Systems

Wake County Justice Center Project Spotlight: March 2012



LOCATION:

Wake County Justice Center
Raleigh, NC

LEAD ARCHITECT:

O'Brien Atkins, PA
Durham, NC

GENERAL CONTRACTOR:

Barnhill / Balfour Beatty
Raleigh, NC

TILE SUPPLIER:

Daltile
Washington, DC

DESIGN ARCHITECT:

HOK
Washington, DC

INSTALLATION CONTRACTOR:

David Allen Company
Raleigh, NC

LATICRETE SUPPLIER:

Daltile
Washington, DC



LATICRETE Brings Large Format Porcelain Panels to Justice

by Ron Treister

Since the dawn of the New Millennium, on a daily basis, roughly 5,000 people have found themselves for whatever reasons, inside the courtrooms of Raleigh, North Carolina's Wake County Justice Center. On the average, more than 200,000 cases have been filed there annually since 2000. With a growing regional population and continual advances in security technology, a strategic decision was made by government officials to build a brand new justice center. As a result, a state-of-the-art, ten story 577,000 square-foot facility slated to meet the county's needs for the "next 30 to 50 years," began construction.

The new Wake County Justice Center, which initially broke ground in 2010, was clearly an ambitious project that incorporated not just new technologies regarding in-building security, but the latest technologies in construction products, as well. One of the most interesting of the new facility's design treatments included having extremely large scale, thin format porcelain panels installed on the walls of 15 individual courtrooms. In order to accomplish this, these new cutting-edge tile materials (which until this time had never been used in a project such as this) were specified by the Washington, DC office of architectural firm, HOK.

Jeff Eassa, Daltile Architectural Representative, presented sample binders and "chip chests" of Daltile® SlimLite™ porcelain panels to HOK. Principles at that company, in particular Duncan Lyons, were impressed by these 1/8" thick chips presented as tiny samples of the finished product, which would ultimately be specified in a mammoth format of 39" x 118" panels. Eassa said, "Critical to the success of the use of this product was the advanced planning and detailing of the system and installation to assure that quality was maintained in the

alignment from panel to panel and the adjacent finish materials. The efforts of the David Allen team working with the Barnhill / Balfour Beatty JV team and OBrien Atkins, PA Architects resulted in faster installation and a higher level of finish quality than anticipated. This was definitely a case of the right product, in the right application, by the best team equaling top quality."

Generally, stone slabs for installations such as these are 1-1/4" thick and weigh at minimum, 22 pounds per square foot. A stone slab the same size as Daltile's SlimLite panel would weigh over 700 pounds and according to Eassa, "Any number of hearty laborers would have a very hard time managing something that cumbersome. Correspondingly, our SlimLite weighs 1.5 pounds per square foot; a 39" x 118" porcelain panel weighs only 48 pounds. Two experienced installation technicians each wearing a good pair of gloves can easily handle that!"

Jason Banks is a Project Manager at David Allen Company, an NTCA 5-Star Contractor, CTEF Certified Installer and one of America's most capable and respected marble, granite, terrazzo, and tile contractors. The company is headquartered in Raleigh with branch offices in Washington, DC, Miami, FL, Birmingham, AL and Columbia, SC. His firm had already been contracted for all the tile work in the center's bathrooms and the sizable terrazzo installation for major public spaces prior to being brought in to install the large porcelain panels.

"We were initially hired directly by the joint venture of Barnhill/Balfour Beatty to do the tile and terrazzo installation," stated Banks. "After Jeff Eassa, Daltile's architectural representative for the DC area was able to get his firm's new SlimLite porcelain panels specified by HOK for the courtroom walls, we were contracted for that project work, as well. We quickly found out that SlimLite was a very new, high-tech product which

needed the most up-to-date installation system in order to be installed correctly.

"Therefore, to move forward in the most professional way, we worked together with Jim Owens and Cindy Bell from Daltille's local offices, to get as much information and training as possible prior to installing the new SlimLite porcelain panels. Additionally, Rob Smith of LATICRETE worked very closely with us, going over the various prescribed installation products which would work at optimal levels when bonding the porcelain panels to the courtrooms' vertical surfaces. We wanted to go into this unique exercise knowing exactly what to do."

The LATICRETE® System played a major role in making sure the panels were installed to meet the building's plans of functioning for the "next 30 to 50 years." Michael Goins, LATICRETE Distributor Sales Representative added, "These panels are large format, very thin and have a mesh backing for support. They have to be handled with care and installed to provide a flat and very smooth surface to achieve the desired look. Because they install like large format porcelain tile, they require at minimum, 80% coverage for interior applications."

The LATICRETE System recommended for this project included LATICRETE 4-XLT due to its incredible non-sag performance which is ideal for large and heavy tile; LATICRETE SpectraLOCK® PRO Premium Grout[^] with its color uniformity, durability and ease of installation... with enhanced performance, and LATICRETE Latasil™ 100% silicone sealant. "These products had been used successfully by David Allen installation crews previously; they were comfortable with their performance," Goins stated. "The SlimLite tiles are new to our industry, and the contractor wanted to make sure that the right products were used for installation. And of course, the fact that these installation products are part of a system that offers a 25-year system warranty was very important."

Banks mentioned that the non-sag properties of LATICRETE 4-XLT helped his firm immensely with the installation. "We put the panels up... and, they stayed up. When our LATICRETE reps tell us something, they have credibility and we believe them. LATICRETE has done an excellent job in educating us relative to which products to use and why they should be used. Because of this great relationship with its continual training, I feel as if I know the ins and outs of LATICRETE products almost as well as do our sales reps. Whenever I get into a situation with a new or different product application and have questions, I can always call on LATICRETE for professional, easy to understand and immediate information. The Wake County Justice Center is just one of many examples of this."

Ron Nash, LATICRETE Director of Sales, North America, fittingly summed up this activity, "The Wake County Justice Center clearly was a unique project because the specified Daltille large format porcelain panel material was very new to the marketplace. In order for it to be installed correctly, an extremely professional tile contractor was needed, as was the most up-to-date, high-performance installation products. David Allen Company, a LATICRETE Most Valued Partner, did the necessary pre-installation homework and approached the project extremely methodically, knowing exactly what to do for each step of the process. Using LATICRETE 4-XLT with its non-sag and strong bonding properties, the subsequent installation was flawless."

A countless number of legal proceedings will take place in the Wake County Justice Center courtrooms as time moves forward. No one will ever be completely sure of their outcome, until judges render their final decisions. However, one outcome to take place in all of those 15 hallowed courtrooms which will be very, very predictable, is that the large format porcelain panel installation will last ad infinitum.

