



Innovative Tile and Stone
Installation Systems

Lancaster General Health Outpatient Pavilion

Project Spotlight: July 2009

**LOCATION:**

Lancaster General Hospital, Lancaster, PA

ARCHITECT/DESIGNER:

Array Healthcare Facilities Solutions, King of Prussia, PA

TILE CONTRACTOR:

Leshner Inc. Natural Stone, Quartz & Tile., Middletown, PA

TILE SUPPLIER:

Banta Tile & Marble Company, Lancaster, PA

LATICRETE DISTRIBUTOR:

Conestoga Tile, Harrisburg, PA

TILE INSTALLATION SYSTEM:

LATICRETE International Inc., Bethany, CT



Lancaster General Health Downtown Outpatient Pavilion

By Eric Carson

Lancaster General Health, the leading healthcare provider for the people of Lancaster County, continually reinvests in new and renovated facilities to fulfill its vision of creating an extraordinary experience every time.

In January 2009, the Lancaster General Health Downtown Outpatient Pavilion opened just across the street from Lancaster General Hospital as part of the hospital's \$65 million upgrade that also includes an 11-story parking garage.

The Lancaster General Health Downtown Outpatient Pavilion is a 62,000 square foot (5,760 m²), four-story addition dressed in classical brick, and attached to the existing structure by a glass-encased pedestrian bridge that spans Duke Street. The new outpatient medical services building provides easier access for patients and employees, more convenient services, and allows for a more efficient use of space by shifting services previously offered in the hospital to the new pavilion.

After the sheer size and beauty of the exterior is taken in by patients and visitors alike, one of the most eye-catching features on the inside is the intricate water-jet cut porcelain floor that weaves elegantly through the first two levels. Leshner Inc. Natural Stone, Quartz, & Tile installed the 15,000 square foot (1,394 m²) water-jet cut stone and porcelain tile using GREENGUARD certified installation materials manufactured by LATICRETE, which required nothing less than absolute precision to accomplish.

With two different sized large-format porcelain tiles in three different colors, the most difficult aspect of the installation was simply the layout, making sure the pattern lined up according to the original design. Leshner Inc., based in Middletown, PA, estimated that close

to four full days were spent simply preparing the layout to set the tiles. In the process of coordinating the 14" x 28" (356 mm x 711 mm) and 14" x 14" (356 mm x 356 mm) Crossville porcelain tiles, the Leshner crew also had to consider 15 different archways on each of the two levels of the rotunda-like interior at the Downtown Pavilion. In addition to the pattern narrowing, and even beginning and starting over inside the small space provided by the archways, the entire pattern ran through the entrance foyer, the lobby, the elevator shaft and down hallways. Fabricated by RC Waterjet in York, PA, the pattern even continued in the bathrooms, just on a smaller scale, with 7" x 7" (178 mm x 178 mm) and 14" x 14" (356 mm x 356 mm) Crossville porcelain in the same design and colors as the more expansive field work. The Banta Tile and Marble Company in Lancaster was contracted to do the tile work in the all of the bathrooms.

This was not your average tile installation.

"We got lucky," said Bryan Noel, project manager for Leshner Inc. "We worked with a great water-jet company on this project. We gave them a few measurements for where we wanted to start tiling and went from there. With different sized pieces of tile there are always going to be issues, but things went much smoother than anticipated. Everything had to be laid out with the joints lined up all the way through so there was a great deal of prep work. If we did the same project with just a basic design we would have taken a few measurements and started snapping lines."

With a poured concrete subfloor on a metal deck frame, and 15 narrow archways on each floor, Leshner Inc. also had to be concerned with the possibility of lippage occurring from deflection or movement in the substrate,

particularly at all cold or expansion joints. In addition to LATICRETE® 86 Latilevel™, which proved the right self-leveling solution for each archway, Leshar Inc. applied LATICRETE 9235 Waterproofing Membrane for its anti-fracture protection capabilities. GREENGUARD certified, LATICRETE 9235 Waterproofing Membrane doubles as an anti-fracture membrane, capable of suppressing cracks up to the industry standard of 1/8" (3 mm), while simultaneously preventing new cracks that may form from telegraphing up through the finished tile work.

ICBO approved, and with an ASTM C627 TCA "Extra Heavy" service rating, LATICRETE 9235 Waterproofing Membrane is a thin, liquid applied waterproofing and anti-fracture membrane that protects against harmful moisture penetration and inhibits the growth of mold and mildew in the membrane with Microban® antimicrobial product protection.

"There was definitely a leveling process and the need for anti-fracture protection on the job," said Noel. "With two different sized tiles in a specific pattern a lot of work had to be done on the subfloor itself. We had to make sure the tile would lay as flat as possible. LATICRETE 9235 Waterproofing Membrane is an awesome product. We used that on our expansion joints and it worked perfectly. That's the big thing about LATICRETE: They make great products. Basically, we don't ever have to worry about the products doing what their supposed to do."

With the substrate properly prepared, Leshar Inc. could begin the difficult task of setting the porcelain tiles in place based on how they were labeled in accordance with the complex water-jet cut inlay pattern on the first and second floors of the Lancaster General Health Downtown Outpatient Pavilion project.

For the interior installation of porcelain tiles over concrete in high-traffic areas, like at the Downtown Pavilion, LATICRETE 317 was mixed with LATICRETE 333 Super Flexible Additive for

a high-strength, shock and thermal resistant mortar bed.

To grout this curving, water-jet cut masterpiece of tile design on both levels of the Downtown Pavilion, Leshar Inc. utilized LATICRETE 1500 Sanded Grout for a dense, durable grout joint. GREENGUARD certified for Healthy Indoor Air Quality, LATICRETE 1500 Sanded Grout emits low VOCs, important in a hospital setting, and is designed for use with grout joints measuring 1/16" to 1/2" (2 mm x 13 mm). LATICRETE 1500 Sanded Grout meets ANSI A118.7 shrinkage and compressive strength requirements, and inhibits the growth of stain-causing mold or mildew with Microban.

The final step was to apply LATICRETE Latasil™, a 100 percent silicone sealant, to all expansion joints and changes in plane. LATICRETE Latasil meets tough industry standards of adhesion making it ideal for the floors at the Lancaster General Health Downtown Outpatient Pavilion. With Microban antimicrobial product protection, LATICRETE Latasil is designed for durability and long life, especially in wet areas, and will not crack or stain the light colored porcelain tiles.

In the end, one goal of the Lancaster General Health Downtown Outpatient Pavilion was to improve the patient and employee experience, which is surely the case. And no question the beautiful, but complicated water-jet cut porcelain tiled floors are a component of that new experience. The flooring adds a unique aesthetic to an impressive new addition, and the use of GREENGUARD certified LATICRETE products by Leshar Inc. Natural Stone, Quartz & Tile will make sure it stands the test of time.

