

## **CATHEDRAL OF THE HOLY CROSS**

**Project Spotlight** 





Photograph courtesy of Nate Fontes-Fried



hotograph courtesy of Nate Fontes-Fried



Photograph courtesy of Nate Fontes-Fried



Photograph courtesy of Nate Fontes-Fried

# 150-Year-Old Cathedral of the Holy Cross Receives First-Ever Renovation

#### The Situation

For nearly 150 years, the Cathedral of the Holy Cross has been a staple in Boston's Catholic community and has played host to many significant events in U.S. history, including 1964's requiem mass to mourn the assassination of President John F. Kennedy, Pope John Paul II's first trip to the United States as leader of the Catholic Church in 1979 and an interfaith service where President Barack Obama addressed the nation after the 2013 Boston Marathon bombing.

Generations of use had taken a toll on the cathedral, which is the largest Catholic church in New England and is the mother church of the Boston archdiocese. Tasked with bringing the cathedral into the 21st century while maintaining its old-world charm, Suffolk Construction was chosen along with Elkus Manfredi Architects to lead one of its largest renovations to date at the request of Cardinal Seán Patrick O'Malley the Archbishop of Boston. Local union contractor New Boston Interiors was hired to use specified LATICRETE® products to install new stone floor finishes to replace the carpeting and vinyl composition tile covering the wooden floors throughout the entire building.

"What matters most to Elkus Manfredi Architects is to specify products that will endure the test of time; so in this case, the LATICRETE reputation for high quality sub-flooring systems and the 25-year warranty were critical to our product specification," said Cathy Naughton, AIA, LEED AP, Senior Associate at Elkus Manfredi Architects. "Our firm is also committed to specifying products that contribute to LEED points with high regard for sustainable building, and knew we could rely on LATICRETE and their product portfolio to meet our standards."

## The Challenge

<u>Historic Structure</u>: With any historic structure, the renovation process can be full of surprises. All of the teams working on the cathedral needed to be mindful of the structure's past and capable of creatively finding solutions that could repair any bumps that came up along the way with ease and respect to the original building.

<u>City Prominence</u>: The Cathedral of the Holy Cross is a mainstay and one of the most exciting renovation projects that has taken place in Boston. All of the teams involved knew that they were being asked to complete a difficult task with the whole community's eyes on them.

#### **A LATICRETE Solution**

"When we made our first site visit, we knew that we would have our work cut out for us immediately," said New Boston Interiors Project Manager Brendan Howard. "The plan was to install 20,000 square feet (1,858 m²) of 18" x 18" (46 x 46 cm) tile throughout the entire nave, and it needed to be perfectly flat throughout as directed by the archdiocese. We were handed a topographic map of the nave area that showed an 8-inch (20 cm) variance from the floor's highest and lowest points."

LATICRETE representative Peter McKeon joined New Boston Interiors onsite to inspect the floor variance and help identify a solution to the very difficult task at hand. McKeon advised the installer to use STRATA\_MAT™, a high-performance uncoupling membrane that offers an enhanced mechanical bond of the adhesive mortar for faster drying and a shorter time to grout, as well as NXT™ Level, a cement-based, self-leveling underlayment, to flatten the floors as much as possible.

Once the floors were leveled, the team installed the subfloor. Unfortunately, because of where the pews had been placed throughout the years, the aisle was ¼ inch (6.4 mm) higher than the rest of the floor after the subfloor was installed. HYDRO BAN® Board was the solution.

"CDX plywood is not stocked at ¼ inch (6.4 mm) thickness, so we were extremely grateful that HYDRO BAN® Board, a lightweight, easy-to-install, ready-to-tile backer board, could be subbed in and perform wonderfully. Without HYDRO BAN Board, we would have had to put the project on hold and remove all of the ¾ inch (19 mm) thick plywood that had been installed," explained Howard.

After completing the HYDRO BAN Board installation, Howard directed foreman Andy Jamieson and his team from the Bricklayers & Allied Craftsman Union Local 3 to install 20,000 square feet (1,858 m²) of tile with MULTIMAX™ Lite. This product is the ultimate one-step, non-sag mortar for interior and exterior installations of ceramic tile, porcelain tile, glass tile and stone.

SPECTRALOCK® PRO Premium Grout, the most color accurate and uniform, stain-resistant grout available today, and PERMACOLOR® Select, an advanced high-performance cement grout that offers the industry's first dispersible dry pigment solution, were used to grout throughout the cathedral.

All of the products selected for use, aside from HYDRO BAN Board, have received multiple certifications and declarations for sustainable living, including Health Product Declarations (HPD), Environmental Product Declarations (EPD) and UL GREENGUARD Certifications for low chemical emissions.

#### **Outcome**

"Peter was always ready to offer as many options as possible. The project at the Cathedral of the Holy Cross presented us with formidable problems, but the teamwork led by Peter and our foreman Jamieson, who has more than 40 years of experience as a tile mechanic and member of Local 3, was the only way this project could have been as successful as it was," added Howard.

After nearly two years of renovations, the main sanctuary at the Cathedral of the Holy Cross in the South End opened just in time for 2019 Holy Week. Since reopening, the ordination of the largest group of priests in a single ceremony for the archdiocese in nearly two decades has taken place, adding more tallies to the cathedral's list of significant historical happenings.



Photograph courtesy of George Martell



Photograph courtesy of George Martell



Photograph courtesy of Robert Benson Photography

### "LATICRETE has a product for every situation."

Brendan Howard
New Boston Interiors

