



PROJECT PROFILE



INVITING INTERIORS SUPPORT LEARNING AT SANDY HOOK ELEMENTARY

Location:
Newton, Connecticut

Project size:
12,000 Square feet

Contractor:
Elegant Concrete Polishing, Inc.

Architect:
Svigals & Partners

Interior Design:
Lynn Brotmann Interior Design

Start and finish dates:
2015 - 2016

Products:
TRU Self-Leveling, TXP FAST, Rapid Set® Spiked Roller, CS Unitec Hippo Mixers

A CREATIVE AND COLLABORATIVE ENVIRONMENT COMES TO FRUITION WITH TRU SELF-LEVELING

A new Sandy Hook Elementary school in Newtown, Connecticut opened in 2016 with an extensive redesign. In addition to their focus on safety and security, designers of the school aspired to create an enriching, open environment for students.

Specifications originally called for Type I white portland cement in common spaces, corridors and the lobby. These floors—which totaled 12,000 square feet in area—were to be polished and decorated with a colorful block pattern; they were designed to accentuate walls filled with artwork and enhance the daylight-filled volumes of the circulation spaces. Type II grey portland cement was specified for other parts of the building. The dual specification was going to increase costs and make logistics difficult. Flooring contractor Elegant Concrete Polishing, Inc., recommended the use of integrally colored polished concrete topping to avoid costs associated with coloring the entire depth of white floor slabs.

Elegant Concrete Polishing, Inc. had seven years of experience with the Rapid Set® TRU Self-Leveling System and was confident in its ease of installation as well as its performance. TRU Self Leveling is an advanced hydraulic cement-based, self-leveling topping. A one-component system, it is crack-resistant and durable. It also achieves high early strength.

TRU rapidly levels, maintains workability for 30 minutes, and produces a smooth, strong surface with high bond strength. It cures to a light off-white color—ideal for dyed floors—and it grinds and polishes well. The TRU System was a good choice for the project's fast-track construction timeframe and offered contractors control over the floor's finished color.

Architecture firm Svigals+Partners, along with in-house Lynn Brotman Interior Design, designed a floor pattern. Elegant Concrete Polishing, Inc. was tasked with plotting a rectangular floor pattern that matched the design drawings—and as is common for most construction projects, as-built conditions confronting the contractors did not always match the blueprints.

Elegant Concrete Polishing, Inc. had to coordinate with other trades and turn over finished floor areas as quickly as possible. They worked in sections of 3,000 square feet at a time, and spent approximately one week per section, where the scope of work included:

- Prep
- Priming
- Pouring
- Grinding
- Honing
- Densifying
- Polishing
- Sealing
- Color-matching (of control joints with quick curing polyurea joint fillers by Hi-Tech Systems)

Thirty kits of Rapid Set® TXP™ FAST were used to prime the floors. TXP FAST is a two-component, alkali resistant epoxy primer that has excellent substrate wetting capabilities, promoting penetration and adhesion. The primer allows overlay placement in as little as six hours. One thousand bags of TRU Self-Leveling were applied

as floor topping. CS Unitec Hippo portable mixing stations, along with Pelican transport carts, were used during the mixing phase of the application. A gauge rake was used to place the material; a Rapid Set® Spiked Roller was used to remove entrapped air and a smoother trowel to smooth the topping.

"We have used almost all of the floor toppings available in the market today and have changed many specs to Rapid Set TRU, because of its performance, and because within a very short time we are able to put a 1000-pound machine on the surface to begin processing. With fast track schedules, this is critical, because the subcontractors are competing for floor space and it can be difficult to carve out adequate time for priming, pouring, grinding and polishing," said Austin Morrison, vice president, Elegant Concrete Polishing, Inc.

Adding to the challenge the contractors faced was the fact that construction spanned three seasons: winter temperatures were as low as 20°-30° degrees; spring temperatures were in the range of 40°-60° degrees; and summer temperatures went as high as 90 degrees. Air movement inside the building had to be managed to protect surface conditions as the floor topping was being placed, in order to prevent tears and cracks.

By the project's end, the contractors and design team were able to come under budget with beautiful results and students at the new elementary school will be able to enjoy a creative, collaborative learning environment.

CTS Cement Manufacturing Corporation manufactures Rapid Set professional-grade cement products for concrete repairs and new construction projects. Contractors, owners, engineers and architects choose Rapid Set to eliminate problems they have with other concrete repair materials, to save time and money, when superior durability is required and results need to be aesthetically pleasing. For more information about CTS Cement and Rapid Set, please visit www.CTScement.com.

ABOUT CTS CEMENT