NEW YORK PUBLIC LIBRARY

PROJECT SPOTLIGHT

CUSTOMER
New York Public Library
New York, New York

TILE AND STONE CONTRACTOR
Eurotech NYC
New York, New York

DISTRIBUTOR
Pyramid Floor
Port Washington, New York

BUILDER
Tishman Construction
New York, New York
The New York Public Library Main Branch at 5th Ave. and 42nd St. in New York City recently underwent a 60,000 square foot (5,574 m²) renovation to increase storage and preservation of highly valuable research volumes. Located two stories underneath the lawn at Bryant Park, this space will house a new and highly sophisticated computer and motorized archival library stack system. This stack system will hold 2.5 million invaluable research books that need to be safe, accessible, and require a perfectly flat floor to operate properly.

The goal was to create a climate controlled space kept at a constant 65°F (18°C) with 40% humidity to protect books and manuscripts dating back to the 1600’s.

A subfloor needed to be created that could withstand the natural environmental conditions, including controlling moisture and dust. The library was built over the Croton Reservoir, presenting constant moisture and humidity. The library is open seven days a week, allowing floors to be poured only between 11pm and 6am on Friday nights. The only access was through a service hatch in Bryant Park, then through a maze of underground corridors. This job would have taken several weeks by using the traditional small bag method and the removal of the small bags of debris would have been environmentally unacceptable. In addition, the architect and stack system manufacturer were looking for the underlayment to help stabilize the extensive track system.

"With the LATICRETE® SUPERCAP® system, we were able to pump a high volume of material from the street level down below ground self-leveling the 60,000 square foot (5,574 m²) area in five overnight sessions. By doing this, we had zero silica dust contaminants enter the building and our exterior footprint in this very busy part of Manhattan was very small and clean,” stated Doug Metchick, President of LATICRETE SUPERCAP.
New York based Pyramid Floors recommended using the LATICRETE® SUPERCAP® system, engineering a solution to solve the dilemma. The self-leveling underlayment was mixed in the computer controlled blending truck. This vehicle can mix and pump the equivalent of up to 600 small bags per hour, up to 50 stories high. A hose is the only thing that goes inside the building, it was perfect for snaking through the underground maze and to self-level the slab.

"The results were fast, flat, dry and NO silica dust inside or outside. No one else can do what they did. This is what we all need to solve problems, save time and comply with the new OSHA silica dust ruling and keep our people safe," stated Alfred Vacchiano, Project Supervisor for Tishman Construction.

The LATICRETE SUPERCAP system provided a simple, unobstructed delivery of the self-leveling product. LATICRETE SUPERCAP SC500 was used to pour and level out the floor.

LATICRETE SUPERCAP SC500 is a pumpable and pourable, low alkali cement-based, premium self-leveling underlayment based on a proprietary mineral binder system that is used to finish interior concrete and level uneven floor surfaces. It can be applied over concrete, exterior glue plywood and other types of sound flooring before installing wood, resilient, cork, sports flooring, ceramic, stone, carpet or other flooring systems. Floor covering adhesives that are suitable for concrete can be used on LATICRETE SUPERCAP SC500.

"If it weren’t for the pump truck, we would have had to take two elevators and walk down winding hallways. It would have taken months to finish this job and we would not have been able to meet the zero silica dust mandate using the traditional, small bag way. The only option was to use one of our SUPERCAP pump trucks," commented Sean DeGaray of Pyramid Floor Covering.

As of August 2016, 250,000 books have been placed into the new stacks. Moving the balance of books should take around 10 to 12 months. Using the LATICRETE SUPERCAP pump truck ensured that the job was fast, easy, safe and delivered perfectly flat floors.