Provo City Temple

Application

775,000 cubic feet of Foam-Control® Geofoam was used in three different densities as a lightweight structural fill for a landscaped plaza being built on top of a parking garage in Provo, Utah.

Project Details

After more than 125 years of service to the community, the Provo City Temple was tragically lost to a fire in 2010. Though the interior was destroyed, much of the brick exterior walls still stood and church leaders decided to restore what remained of the building for use as a new Provo Temple. Cutting-edge construction technology was used to gut the burned-out shell of the historic building. To accomplish this, the brickwork was fortified with 10” of concrete and the stone foundation was removed and replaced with a concrete foundation. This required the brickwork to be suspended 40’ in the air supported by 146 steel piles.

A key feature of the new facility is the 245-stall below-grade parking structure adjoining the temple with a landscaped plaza on top. The plaza design called for a lightweight fill material to develop the required elevation changes without adding a lot of weight to the structure.

ACH Foam Technologies’ Foam-Control® Geofoam was used in three different densities (EPS19, EPS29, and EPS46) to fill-in depths of 3’ to 6’ on the upper level of the garage. Architects were surprised to find that the Geofoam lightened the load on the garage below so much that the builders could reduce the volume of concrete required to support the structure and were able to reduce the thickness of the post-tensioned slab while increasing the beam span. During construction, Geofoam was also beneficial in protecting the waterproofing membrane from potential damage.

Provo City Temple
• Provo, UT
• Spring 2015
• Foam-Control® EPS19, EPS29, and EPS46 Geofoam Structural and Landscape Fill
• 775,000 Cubic Feet

Architect
FFKR Architects

Contractors
Jacobsen Construction
Oracle Construction