Mine Tunnel Structural Barrier

Application

28,000 cubic feet of Foam-Control® EPS29 Geofoam with Perform Guard® termite resistant treatment was used as a lightweight structural barrier above a mine’s hauling tunnels in Salina, Utah.

Project Details

In 2012, the management of a large private mining company wanted to erect a new storage building above an existing set of hauling and belt line tunnels on their property. Structural calculations on the existing tunnels, which were an average of 12' below the surface, showed that they would not be able to support the weight of the new building.

Engineers evaluated several solutions including using a micropile and grade-beam system, a structural retrofit of the tunnels, and building an Geofoam base above the tunnels. Analysis showed that using Foam-Control® Geofoam would be the fastest, easiest, and most cost-effective choice. ACH Foam Technologies’ Foam-Control® EPS29 Geofoam with Perform Guard® termite resistant treatment was used to create a structural barrier. The Geofoam was installed in two sections, one spanning 8' deep and 80' long containing three layers and the other section spanning 6' deep and 50' long in two layers above the tunnels. A 6" concrete load distribution slab was built on top of the Geofoam to support the new storage building.

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- Salina, UT
- Fall 2012
- Foam-Control® EPS29 Geofoam Structural Protection Fill with Perform Guard®
- 28,000 Cubic Feet

Engineer

Jones & DeMille Engineering

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