Highway I-15

Application

100,000 cubic meters (109,360 cubic yards) of Foam-Control® EPS19 Geofoam was used as embankment and utility protection fill in the reconstruction of Highway I-15 in Salt Lake City, Utah.

Project Details

Summer 1998, contractor and engineering firm, Wasatch Constructors, required a material that would minimize settlement impacts on buried utilities and improve stability of the new embankment placed over weak foundation soils while allowing for the highway to be widened and improvements to be made. The utilities beneath the highway needed to remain in-service during construction.

According to Steve Bartlett, UDOT Research, “in areas where conventional borrow is used for backfill, expected construction settlement of the clayey foundation soils is about 0.5 to 1.0 meter. This large amount of settlement exceeds almost all strain tolerance for buried utilities; thus, these utilities would normally require costly replacement or relocation.”

Conventional settlement solutions are costly, take a great deal of time to construct and would have interrupted utility service. As a result, EPS19 (5.8 psi) Geofoam was placed over the utilities to protect them from differential settlement in reconstructing 17 miles of the $1.5 billion highway. The expected settlement of Geofoam was small, only a few centimeters, and it enabled the utilities to remain in-place, without interruption, replacement or relocation.

“Geofoam was a tremendous success on this project and will be my first choice when facing difficult settlement situations in the future.”

Mark Kimble, Wasatch Construction.