Introduction and Problem

A new home community located in Clifton, New Jersey, was built next to a hillside with loose rock and debris, which caused a potential threat to the newly constructed homes. The hillside was scaled to protect workers during the mesh installation from falling rock and debris. Once the scaling was complete, a simple drapery system was required in order to control the loose material, and guide it into a catchment area at the bottom of the slope.

Solution

The contractor chose to use Maccaferri 8 X 10 galvanized wire mesh, combined with the Spenax Fastening System, to create panel to panel connections. Maccaferri’s double twist mesh was selected because it was easy to install and the most cost effective solution.

The mesh was supplied in 12’ X 150’ rolls and the area to be protected was approximately 150’ in length; the height varied between 50 and 60 feet. To hold the mesh in place, the top portion was anchored, using threaded bars that were grouted into place, with a base plate and bolt. Using galvanized Spenax Rings, the mesh was connected longitudinally and secured as per ASTM A975.

Now that the installation is complete, loose material from the slope is contained behind the mesh and falls into a catchment area at the base of the slope. Periodically, the catchment area is cleaned and the fallen material is removed.