Problem
A recently completed Walmart was experiencing periodic rockfall in the loading areas behind the store. Prior to construction, the area had been cleared of a significant amount of rock and soil in order to provide space for the Walmart and a number of other stores and restaurants. During the clearing process, several large benched cut slopes were created on the south and east sides of the site. Rockfall from the southern slope impacted the Walmart loading areas. This slope, which was very tall (~500') allowed even small rocks to develop significant kinetic energy. The rocks in the slope were sedimentary, and were indicative of a typical nearshore marine sequence with alternating layers of limestone, sandstone, and coal seams. The area had previously been the site of an active coal mine, before being reclaimed for other purposes.

Solution
RockMesh B900 was selected because of the strength that is provided by the steel wire rope within the mesh during fabrication. B900 RockMesh was installed from the top of the slope to the first bench. This pattern was repeated for each bench and the rock face below it, down to ground level. The mesh was attached to the top support cable, rolled down the rock face, and then laced to the adjoining panels.

Technical Characteristics
320,000+ square feet of B900 RockMesh, consisting of double twist mesh interwoven with 5/16" wire ropes every two feet horizontally and every three feet vertically.
View from top of southern face, looking east

Client
WALMART

Main Contractor
McCRODY CONSTRUCTION

Installer
MIDWEST ROCKFALL

Designer
CARLSON CONSULTING ENGINEERS

Products Used
MACCAFERRI B900 ROCKMESH

Rockfall Protection

RockMesh B900