

BLACK ROCK QUARRY
POTISHEAD, SOMERSET, UNITED KINGDOM**Suspended Drapery****Problem**

A new training facility was constructed by Galliford Try on the floor of an old quarry for Avon and Somerset Police. The gabion cladding building is located on the northern side of the quarry at the toe of a historical quarried slope, which is 45 - 50m high.

The area above the plant room had previously been identified as an issue by Tony Gee and Partners and they had provided Galliford Try with a design for protection works. The works involved meshing the upper section of the slope and the installation of a rockfall barrier at the toe of the slope. However, it was evident that once works on site had commenced there was not sufficient space between the toe of the slope and the plant room to allow the rockfall barrier to be installed. An alternative proposal to mesh the entire height of the slope over this section was then suggested.

Solution

The solution proposed was Maccaferri DT mesh to the upper two faces and Maccaferri Steelgrid HR100 PVC to the lower face. The mesh was fixed with at the crest, at each intermediate bench and the toe with a 12mm cable attached to 2m long thread bar anchors installed into the competent rock at 4m centres.

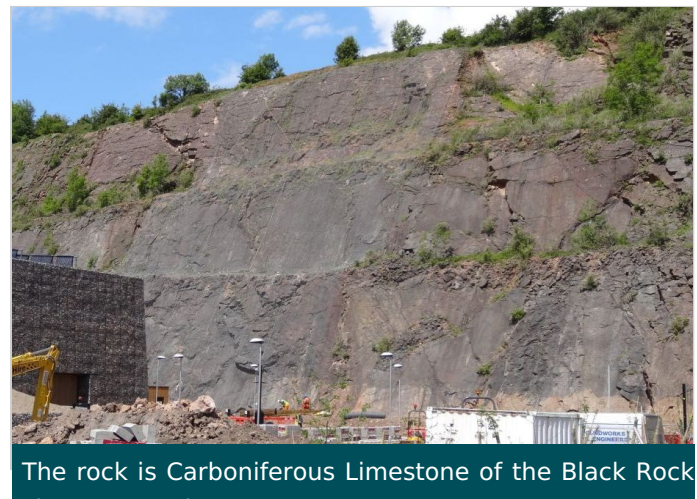
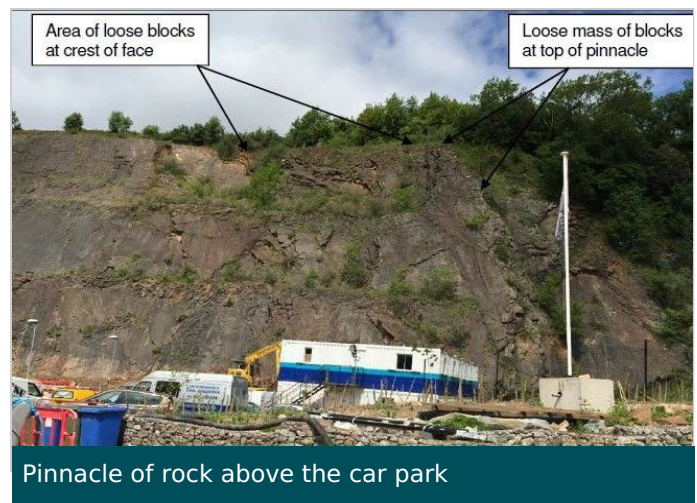
Maccaferri MACRO Studio software was used to check the suitability of the proposed mesh installation. It has been assumed that a maximum 1.5m high wedge of rock debris can accumulate at the base of the slope. The analysis confirms that the specified mesh will be adequate for this situation.

The Steelgrid HR100 was also placed around the pinnacle, with anchorages at a nominal 2m spacing around the full perimeter and a 12mm perimeter cable installed horizontally between the perimeter anchors.

The purpose of the system is to restrain the rock mass and prevent movement and the general unravelling of the loose rock mass.

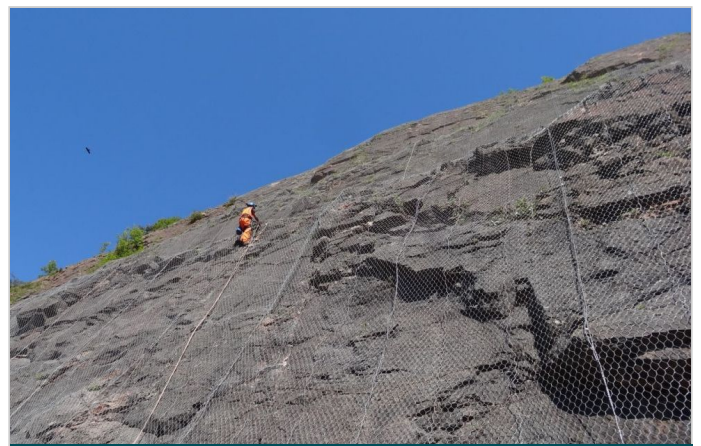
The area to the west of the pinnacle meshed with Maccaferri DT Mesh with a top and bottom fixing cable.

The performance characteristics of the various components of the installation were checked by Key GeoSolutions using the Maccaferri MACRO Studio software.

Client: Avon & Somerset Police**Designer / Consultant:** Tony Gee & Partners**Contractor:** Galliford Try**Products used (Qty.)****Date of construction:** 06/2015 - 07/2015[Google Maps](#)[Google Earth](#)



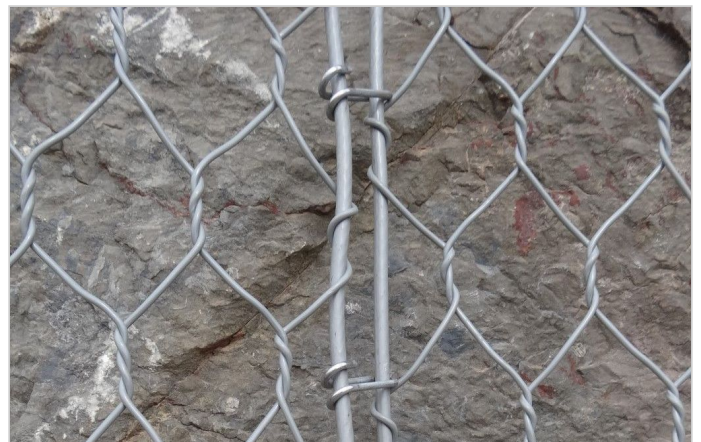
Extent of proposed meshing works at the pinnacle location



Steelgrid HR mesh during installation



Steelgrid HR 100 PVC secured at the bottom of the slope



Steelgrid HR Link used to connect together adjacent rolls