

Erosion Control

Rockfall Protection, Erosamat, Carvoeira, Portugal



Case Study

Project Description

The village of Carvoeira is located on the Portuguese coast on the edge of the picturesque Parque Natural de Sintra-Cascais, a UNESCO World Heritage Site in the category of cultural landscapes. The national park is known for its rich vegetation and attractive sandy beaches. Linking the towns and villages is the N-247 road which snakes its way along the coast offering motorists numerous scenic viewpoints.

The Challenge

The many cuttings on the N-247 serve to permit the passage of vehicles along the coast. Whilst allowing the passage of vehicles, any cuttings present challenges to the safe operation of a road in the form of loose ground and rock falls. Assessments of the N-247 in Carvoeira identified the risk to road users of rock falls in this area, and consulting engineer JetSJ Geotecnia were engaged by the road operator Infraestruturas de Portugal to provide a solution for this section. Delivering a design which addressed the potential hazard of loose ground whilst serving to maintain the aesthetic appeal of this attractive tourist route was of primary concern to the consulting engineer. Completion of the work was also required to minimise disruption to motorists on the route.

Project Information

Client	Infraestruturas de Portugal
Contractor	Ancorpor - Geotecnia e Fundações
Consultant	JetSJ Geotecnia
Distributor	Enrico Piolanti
Products	Erosamat Type 3 Brown
Quantity	5,750m ²
Benefits	<ul style="list-style-type: none">• Easy to handle and install• UV stabilised to provide long term protection• Open structure allowing vegetation to grow quickly



Erosamat Type 3 Brown

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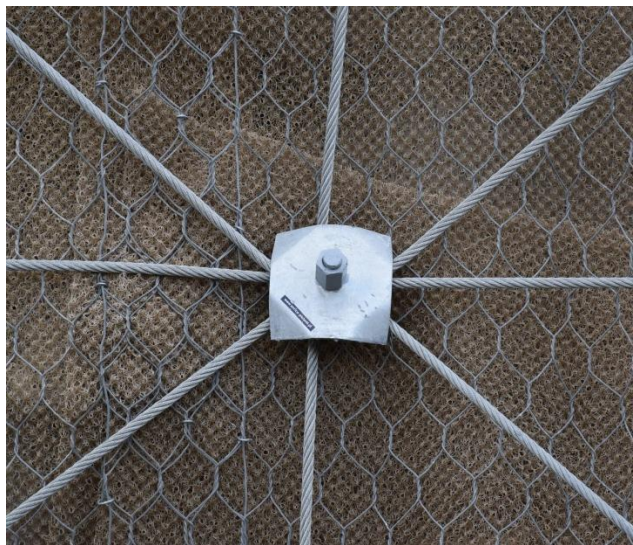


The Solution

JetSJ Geotecnia approached specialist geotechnical supplier Enrico Piolanti who recognised the importance of an aesthetically sympathetic solution. Enrico Piolanti proposed a design which utilised bolts of varying lengths and steel mesh reinforcement in combination with **Erosamat Type 3** to prevent rock sliding and progressive stalling. **Erosamat Type 3** is a three-dimensional matrix which protects the soil cover from erosion immediately after installation to allow plant germination to occur in a protected environment. In this application, **Erosamat Type 3 Brown** with UV inhibitors was chosen to minimise the visual impact of the protection system whilst allowing the vegetation to become established. Contractor Ancorpor completed the installation by hydroseeding the face.

The ABG Service

ABG provided design support to aid the approvals process, manufacturing and delivering to meet tight project timescales.



Erosamat Type 3 Brown fixed to the slope with bolts as part of the rock fall protection system



Rock fall protection system



Erosamat adapts to the contours of the slope

Contact ABG today to discuss your project specific requirements and discover how ABG past experience and innovative products can help on your project.