

DELIVERING  
RESULTS



### Customer / Client

Ministry of Defence (MOD) and Defence Estates (DE).

### Project

Repairs to upslope to prevent debris falling onto a road in mid-Argyll used by the MOD for critical services.

### Challenge

In recent years several small slope failures have occurred on the cuttings adjacent to the road. Turner Estate Solutions commissioned consultant URS to design a solution to improve the safety along the entire 4km length of the road.

Close communication during the works is essential to ensure minimal disruption to the operations of the sites and to the programme of works.

### Solution

Following a full assessment of the risk of further slope failures, extensive sections of the road were identified as unstable and prone to failure. For ease of management the 4km long road was split into 26 smaller sections and the remedial works prioritised.

The design solution included devegetations, slope re-profiling, scaling of loose and/or fractured rock, rock bolting and the installation of a permanent stabilisation system.

In one section alone some 3,500m<sup>3</sup> of material was removed and the slope reprofiled accordingly, 233 rock anchors and 2,730m<sup>3</sup> of tecco mesh installed.

Debris removed from the site will be stored, crushed and used for access roads for future forestry works.

### Client Benefit

Minimise the risk of rockfall on the only effective operational distribution route, maintaining a safe and efficient service with the important 24/7 operational priorities.

65 Craigton Road, Glasgow  
G51 3EQ

T +44 (0) 141 440 0666  
F +44 (0) 141 445 5980

[www.turnerfm.co.uk](http://www.turnerfm.co.uk)  
[enquiries@turnerfm.co.uk](mailto:enquiries@turnerfm.co.uk)