CASE HISTORY
Ref: UK / CH / RF — Rev: 01, Mar 2018

BRAY HEAD, IRISH RAIL
DUBLIN-WEXFORD LINE, IRELAND

STABILISATION OF ROCK CUTTING
Product: Steelgrid HR 30 and RMC 300/A Rockfall Barrier Kit

Problem
A site located on the railway line close to the coastal town of Bray on the Dublin-Wexford line required stabilisation of the rock cuttings adjacent to the track. The line was at risk of rockfall and required the installation of protective measures. The railway had to remain in operation during the installation of the protective systems.

Solution
Irish Rail Infrastructure Department chose to stabilise the rock cutting with the Steelgrid HR 30 stabilisation netting system and to install a dynamic rock fall barrier at the toe of the cutting. Analyses of the likely impact scenarios suggested the system would require a Maximum Energy Level capacity of 3,000kJ.

The mesh selected for the stabilisation netting system was the Steelgrid HR 30 kit. Mesh was supplied in 3.15x40m long rolls which suited the site geometry. The Steelgrid HR mesh being chosen due to its high punching resistance, high stiffness and quicker installation compared to other facing systems.

The RMC 300/A rockfall barrier system was specified as the impact protection solution as it offered the required capacity, it has ETAG 027 Class 6 certification, a class-leading residual height rating, the CE mark and has a proven track record for use in extreme impact environments. Compared to similar 3,000kJ catch fences, the RMC 300/A has 25% less anchors which means less drilling operation which was another added bonus for the installation programme.

Main client:
IRISH RAIL

Main contractor:
COFFEY CONSTRUCTION LTD

Designers:
IRISH RAIL

Products used:
STEELGRID HR 30, (1,600sqm) & RMC 300/A (150sqm)

Date of construction
SEPTEMBER 2015