# MACCAFERRI

# ROCKFALL MITIGATION WORKS ALONG SOUTH-WESTERN RAILWAYS, KARNATAKA

SAKLESPUR TO SUBRAMANYAPURA STRETCH, KARNATAKA, INDIA

## **Dynamic Barriers**

#### Problem

In the Indian state of Karnataka, from Saklespur to Subramanyapura stretch of South-Western Railways, which is part of the western ghats, frequent rockfalls and slides are common- especially during high intensity rainfall during the monsoon seasons. These events usually affect the movement of train along this route.

#### Solution

As per the site observations and previous history of rockfall events, multiple locations have been identified as the critical locations. Among these, there are 2 chainages where rockfall barriers have been proposed. The railways have started the installation of 2 lines of rockfall barriers- 1500 kJ of 5m high at KM 56+820 and KM 57+550 of 20 m and 30 m stretch lengths respectively, on the slope above the railway line to mitigate the risk of rock detachments from upslope locations from reaching the railway line and bridge structure in the vicinity. Client: South Western Railways (SWR) Designer / Consultant: -Contractor: Spar Geo Infra Pvt Ltd Products used (Qty.)

- Dynamic barrier RB 1500

50m (2 lines-20m+30m)

Date of construction: 12/2020 - 01/2021





Figure:2 Site photograph-2









<image>



 Note:
 DM, DV e DL values vary on the post height H, as shown in the following table.

 For further details please refer to the "installation man

 H (m)
 DM (m)
 DV (m)
 DL (m)

 5.0
 1.5
 5.0
 1.5
 S.0





GENERAL SCHEME OF COMPONENTS

#### SIDE VIEW OF THE ROCKFALL BARRIER





### System arrangement details

MACCAFERRI ENVIRONMENTAL SOLUTIONS PVT. LTD D40, MIDC Ranjangaon, Tal-Shirur, Dist. Pune - 412 220 Tel: +91 2138 393000 , Email: info.in@maccaferri.com