MACCAFERRI

CASE HISTORY

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CONSTRUCTION OF ACTIVE ROCKFALL SLOPE PROTECTION BABATNGON

BABATNGON, LEYTE, REGION VIII, PHILIPPINES

Surface Strengthening and Support

Problem

Rockfalls and landslides pose serious threats to infrastructure, public safety, and economic stability.

The unstable steep slope adjacent to the public road exhibits signs of surficial erosion, which weakens the soil structure and increases the likelihood of rockfalls. Given the height of the slope, falling debris can gain significant momentum, making it a severe hazard for vehicles, pedestrians, and nearby properties. Furthermore, continued erosion can lead to progressive slope failure, worsening the situation over time. Without proper intervention, this problem will not only compromise public safety but also increase maintenance costs for road repairs and damage compensation.

Solution

To address this critical issue, the Department of Public Works and Highways (DPWH) Regional Office VIII implemented an Active Rockfall Protection System. This system aims to mitigate rockfall hazards by actively stabilizing the slope while preserving government assets and ensuring the safety of nearby communities.

The primary materials used for this protection system are Maccaferri's Steel Grid HR and Macmat Erosion Control Mat. The Steel Grid acts as a high-strength barrier that prevents loose rocks and debris from falling onto the road, providing structural support to the slope and minimizing the risk of detachment of rock fragments. Meanwhile, the Macmat Erosion Mat helps in controlling surface erosion by reinforcing the soil and promoting vegetation growth. By stabilizing the slope surface, the erosion mat prevents further degradation of the slope and enhances its resilience against environmental factors such as rainfall and wind.

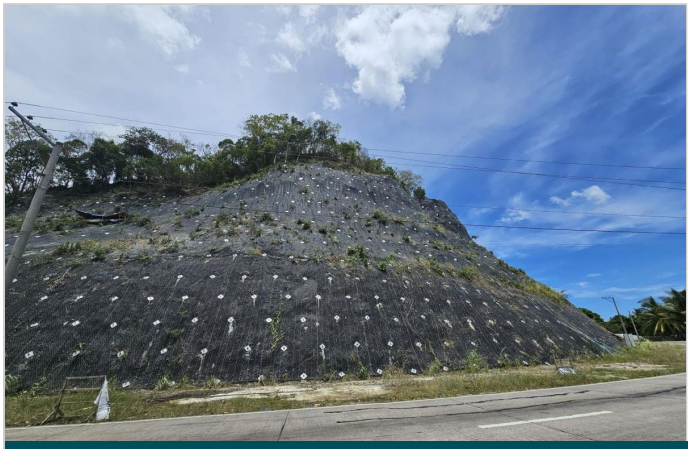
The Active Rockfall Protection System significantly enhances public safety by reducing the risk of rockfalls and maintaining the integrity of the public road, thereby lowering maintenance costs. Additionally, it promotes environmental sustainability through vegetation growth while preventing slope failure, ultimately saving public funds that would otherwise be spent on rehabilitation and emergency response.

Client: EZ Jones Construction, Inc.
Designer / Consultant: DPWH Regional Office VIII
Contractor: EZ Jones Construction, Inc.
Products used (Qty.)

- Macarmour & Steelgrid	55 Rolls SteelgridHR30 2.9x30
- Macmat	83 Rolls Macmat EM 14.3 2x30

Date of construction: 08/2023 - 03/2024

Google Maps Google Earth



Project Completed



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