

PENABLANCA - CALLAO CAVE RD, CAGAYAN, ACTIVE ROCKFALL PROTECTION

PENABLANCA, CAGAYAN, REGION II, PHILIPPINES

Surface Strengthening and Support

Problem

The Callao Cave Road in Peñablanca, Cagayan serves as a vital national road that connects multiple towns and municipalities. Unfortunately, the road faced a pressing issue of rockfall, slope collapses, and landslides, posing a significant threat to the safety of the nearby houses and infrastructure and functionality of the transportation system.

The timely resolution of these challenges was of utmost importance to ensure the safe and uninterrupted flow of traffic while protecting the well-being and livelihoods of the people who relied on the road for daily commuting and economic activities.

Solution

To tackle the rockfall and slope protection challenges on the Callao Cave Road. A detailed assessment of the geotechnical and specific requirements of the project site was conducted to determine the appropriate solutions required to ensure long-term stability and safety.

Maccaferri Philippines employed its rockfall protection system, utilizing Steelgrid HR's high-strength mesh systems and anchorages to stabilize rock faces and soil slopes, mitigating the risks associated with rockfall and reinforcing slope stability. To effectively manage erosion control, Macmat EM, a synthetic material filament geomat was utilized. This geomat protected slopes from water-induced erosion, ensuring the long-term stability and integrity of the road. The environmentally friendly materials used in the solution blended harmoniously with the natural surroundings, minimizing the impact on the ecosystem.

By employing Maccaferri Philippines' rockfall protection system, the Callao Cave Road project not only ensured the safety and reliability of the national road system but also protected the neighboring communities and infrastructure.

Client: Alexi Louisse Construction

Designer / Consultant: Department of Public Works & Highways Region

Contractor: EGB Construction

Products used (Qty.)

- Macarmour & Steelgrid	Steelgrid HR 200 rolls
- Macmat	MacMat EM 290 rolls

Date of construction: 12/2022 - 04/2023

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During Construction



During Construction



Completed



Completed



Completed