

## HALSEMA HIGHWAY

### HALSEMA HIGHWAY, BENGUET, CORDILLERA ADMINISTRATIVE REGION, PHILIPPINES

#### Reinforced Soil Walls and Slope Reinforcement

##### Problem

The Department of Public Works and Highways (DPWH) rehabilitated a portion of the Halsema Highway, also known as Baguio-Bontoc Road or Mountain Trail, where a major landslide has occurred. The project aimed to allow continuous traffic between the Province of Benguet and the Mountain Province. Halsema Highway is an important route to the people in both provinces because it is the only road that provides access for the selling of the region's valuable resources (e.g. vegetable, fruits, wines, etc.) to various parts of Luzon.

A 20 meters high earth retaining structure was required specifically at KM 63, the portion of the highway affected by a major landslide. The challenge was to finish the structure before the start of rainy season. Also, the type of retaining structure must be easy to construct, economical, and be able to generate works for the local community.

##### Solution

The implementing agency (DPWH), the Consultant (BCEOM), the Contractor (Daewoo), together with Maccaferri, agreed that the 'wrap-around' mechanically-stabilized earth wall system using Maccaferri MacGrid woven polyester geogrids was the best solution for the slope protection, not only due to its structural integrity, but also mainly due to economy, ease of installation, and provision of works for the local community.

**Client:** Daewoo E & Co., Ltd

**Designer / Consultant:** Daewoo E & C. Co., Ltd

**Contractor:** Daewoo E & Co., Ltd

**Products used (Qty.)**

- MacGrid WG	8,200 sq.m.
- MacTex Non-woven Geotextile	8,000 sq.m.
- MacBag	N/A

**Date of construction:** 11/2005 - 05/2006



During Construction



During Construction



During Construction



After Completion