

KAHUNA BEACH RESORT & SPA

URBIZTONDO, SAN JUAN, LA UNION, REGION I, PHILIPPINES

Reinforced Soil Walls and Slope Reinforcement

Problem

Kahuna Beach Resort and Spa is a private-owned beach resort located in Urbiztondo, San Juan, La Union. The town of San Juan is known as the surfing capital of the north or the Luzon Island in the Philippines, therefore during rainy season, erosion and scouring of beachfront frequently happen and could result to damage of property. This concerned the resort owner and immediately considered a coastal protection system for the resort.

During the planning stages of the beach resort, the owner wanted to have a retaining structure to protect the elevated finished ground of the resort that is directly facing the beach area, just about 20 meters away from the sea.

Solution

The solution proposed by Maccaferri engineers was a reinforced soil retaining structure known as MacWall. It uses MacGrid woven polyester geogrids as soil reinforcements and features concrete block units (Anchor Diamond Pro patented blocks) for the fascia. An aggregate drainage layer and drain tile were included in the overall design to control surface run-off and reduce possible effect of buildup of excess pore water pressure inside the wall.

The ease of construction, structural integrity, erosion protection, and economy were all delivered by the MacWall system, thus the Client was very satisfied after completion of the project.

Client: Kahuna Beach Resort & Spa, Inc.

Designer / Consultant: Philippine-Sundt Construction & Dev't. Corp.

Contractor: Philippine-Sundt Construction & Dev't. Corp.

Products used (Qty.)

- Anchor Diamond Pro Blocks	7,425 units
- MacGrid WG	7,400 sq.m.
- MacTex Non-woven Geotextile	3,920 sq.m.

Date of construction: 10/2009 - 12/2009



October 2009 - During Construction



October 2009 - During Construction



December 2009 - Project Completed



December 2009 - Project Completed