

PRACHUABKIRIKHAN BAY RENOVATION KUIBURI DISTRICT, PRACHUABKIRIKHAN PROVINCE, THAILAND

Slope Protection

Problem

One of Prachuabkirikhan's main tourist attraction is the beautiful bay located at the southern part of Thailand. Despite having the lowest rainfalls in Thailand, the shoreline has been severely eroded by the strong sea wave from the Gulf of Thailand. Large cracks were observed on the main road networks along the shoreline since 2006. Some parts of the road embankment have started to show slip circle failure. Approximately 500 m length of the most critical road section was identified by the client which needed immediate attention. The proposed structure must be able to withstand marine condition (salt water environment) and severe atmospheric condition.

Solution

Maccaferri was approached by the client to provide the most suitable solution to prevent further deterioration of the shoreline. After careful studies, a 4 m high gravity wall using Maccaferri PVC coated gabion and 12 m length scour apron using Maccaferri PVC coated Reno Mattress was proposed. It is a simple and durable structure where the gravity wall acts as embankment support and the Reno Mattress and filter fabric at the back of the Reno Mattress prevents erosion. Maccaferri follow a strict specification in order to guarantee for long lasting of the structure against marine and salt water environment and the ageing action of ultraviolet rays and heat. Concrete steps were constructed on top of the gabion box to facilitate beach-goers to get to the beach.

Client: PUBLIC WORKS DEPARTMENT, THAILAND

Designer / Consultant: PUBLIC WORKS DEPARTMENT, THAILAND

Contractor: KUI BURI SERVICES LTD., PART

Products used (Qty.)

- Gabion	2,342 nos
- Reno Mattress	1,513 nos

Date of construction: 03/2007 - 09/2007



Before construction (March 2007)



During construction (May 2007)



During construction (May 2007)



(September 2007)



(September 2007)