

EROSION PROTECTION FOR POWER HOUSE LAMPANG PROVINCE, , THAILAND

Mass Gravity Retaining Walls

Problem

Erosion due to underground water can causes significant damage to the engineering infrastructures; in order to minimize the long term costs, infrastructures must be protected.

Erosion around pier foundations can undermine pier stability itself and cause damage to the surrounding areas because of the high voltage electricity transportation.

Solution

5m height PVC Gabion wall was chosen as the best costs effective solution. It shows many advantages that are:

- Permeability • Flexibility • Durability (environmental and abrasion resistance) • Ease of installation • Ease of maintenance • Environmental friendliness (greening and low carbon footprint).
- tight check of the thickness of the scour protection layer; please note that such a check is not so easy for rip-rap solution, especially if the construction is done in underwater conditions.

The productivity rate for this project was 15 m3 per man per day.

The following products were used:

PVC Gabion 1.5x1x1 834 m3 PVC Gabion 2x1x1 1,540 m3

PVC Gabion 2.5x1x1 695 m3 PVC Gabion 3x1x1 852 m3

Client: Sila Mae Ta Ltd., Part.

Designer / Consultant: NA

Contractor: Mr.Prathip Harnkitiwat

Products used (Qty.)

- Gabion 3,921 m3

Date of construction: 06/2007 - 06/2007



Gabion wall construction (1)



Gabion wall construction (2)



Gabion wall construction (3)



Gabion wall construction (4)



Gabion wall construction (5)



Gabion wall construction (6)