

**RIVER REVETMENT WAY RUHU
AMBON, MALUKU, INDONESIA**

Weirs, Culverts and Transverse Structures

Problem

The Public Works Department planned to build a check dam on the river Ruhu with flood control and sediment catchment purpose in order to stabilize the river basin surrounding the populated areas.

Solution

The check dam is 3,5 m high and 35 m wide provided with a 15 m long stilling basin.

The weir and the stilling basin are entirely built using flexible and 1,0 m Gabions and 30 cm Reno Mattresses. Mattresses are flexible modular elements which allow high levels of deformation and settlements without compromising the weir body integrity.

The metallic structures are concrete capped to prevent the excessive abrasion of the double twist mesh due to debris and sediment impact. After the weir construction, the structure experienced a severe flood without any visible damage. Gabions and Reno Mattresses have shown to be a valid alternative to the use of reinforced concrete for weir construction traditionally used in Indonesia both in terms of flexibility, durability and cost effectiveness.

Client: MINISTRY OF PUBLIC WORKS**Designer / Consultant:** N/A**Contractor:** N/A**Products used (Qty.)**

- Reno Mattress N/A

Date of construction: 07/2015 - 12/2015

Weir Foundation Construction



Weir Construction



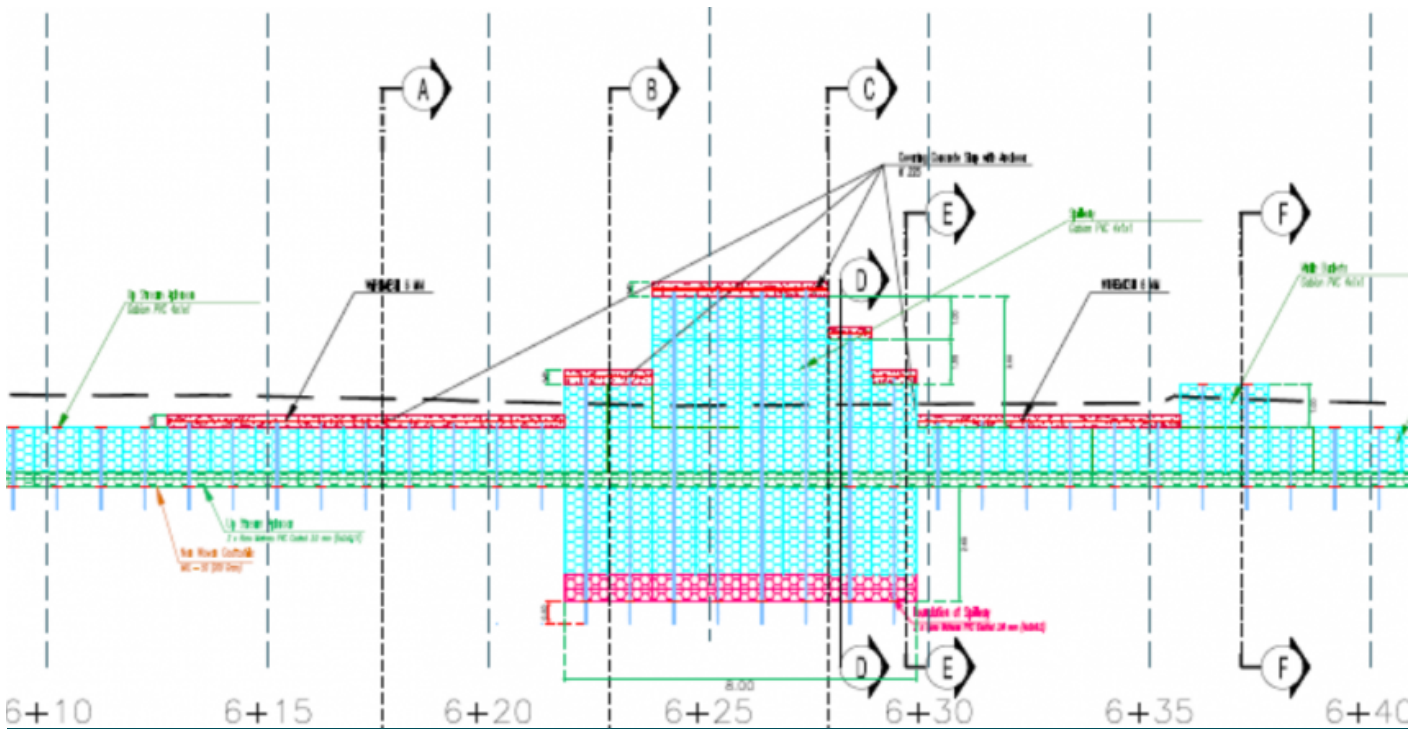
Gabion Concrete Capping



Finished Structure



Weir during operation



Weir Longitudinal Section

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