

PARAMESH SYSTEM OF SOEKARNO HATTA RAILWAY PROJECT TANGERANG, BANTEN, INDONESIA

Mass Gravity Retaining Walls

Problem

Soekarno Hatta Railway is an alternative transportation route to reach Soekarno Hatta International Airport (the most active airport in Indonesia). The railway is built at urban area with dense population and limited area of workspace, hence a steep slope of embankment must be followed. The railway was also constructed on soft soil, therefore a ground improvement solution should be applied before the work of main embankment. Necessity of project completion under tight schedule and effective cost became an important aspect of using Paramesh - MSE Wall System (Retaining Wall) as the solution of the steep slope of embankment.

Solution

Following the described and identified problems, Paramesh - MSE Wall System was chosen compared to conventional method. Paramesh System by Maccaferri Indonesia uses Paralink 300 (Geogrid 300 kN/m) as primary reinforcement, Terramesh as facing and secondary reinforcement, Mactex MXS 250 as separator and filtration between the reinforced backfill soil and box of Terramesh.

The designer has conducted the analysis using internally developed Maccaferri Software (Macstars W 4.0) and finite element software - Plaxis. The retaining wall stability was checked under both static and seismic condition along with the the stability during soil excavation and construction phases has been verified.

Maccaferri Indonesia provides comprehensive services starting from design and planning stage with technical recommendation, manufacture and supply materials, and construction stage with Product Assistance. Most of the materials from Maccaferri Indonesia are manufactured locally in Indonesia under International and National Standardization and verified by TKDN certificate.

Client: PT. KERETA API INDONESIA (Persero)

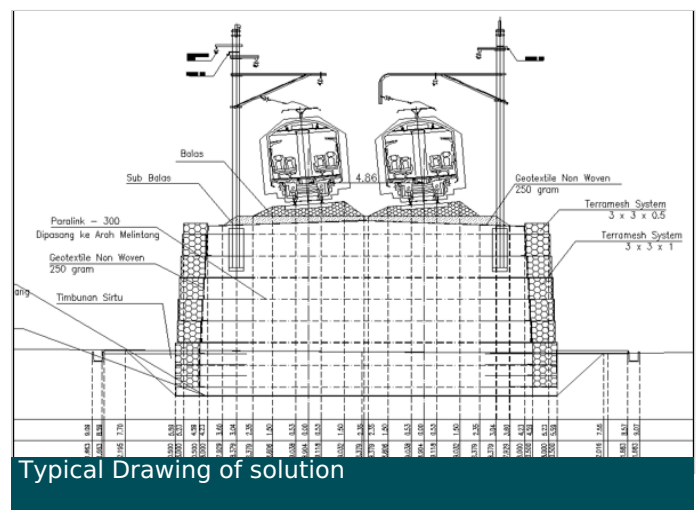
Designer / Consultant: PT. VIRAMA KARYA

Contractor: PT. WASKITA KARYA (Persero) Tbk.

Products used (Qty.)

- Gabions	4-12 m Height, 2 km Length
- Terramesh	4-12 m Height, 2 km Length
- MonoAxial GeoGrids	4-12 m Height, 2 km Length
- Nonwoven Geotextiles	4-12 m Height, 2 km Length

Date of construction: 01/2017 - 12/2017





Installation



Finished construction



Finished construction



Finished construction



Finished construction

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