

KALIORANG, WING WALL PIT CRUSHER

KALIORANG, EAST KALIMANTAN, INDONESIA

Reinforced Soil Walls and Slope Reinforcement

Problem

Two wing walls need to be constructed next to the concrete retaining wall crusher of Indexim Pit Crusher that located in Kaliorang District, East Kutai Regency, Province of East Kalimantan, Indonesia. Concrete wall as the main pit crusher has already been constructed by the owner and they need more efficient in terms of construction time and cost.

The site condition generally consists of a layer of 1-2 m thick of organic soil, underlain by a later of 1-5 m thick of hard silty clay, very dense silty sand or coal material, followed by moderately weathered siltstone material.

The total area of wing wall facing is about 165 m² with the total height range between 11, 9.5 and 7 meters. These walls will carry load of DT-40 vehicle or equivalent of 10 kPa load.

Solution

The solution proposed was Paramesh System (Paralink & Terramesh) from Maccaferri Indonesia. The combination of hybrid material like Terramesh and Paralink 300 kN/m was expected to provide stability to the proposed wall. Site won material was proposed as reinforced soil in order to maximize efficiency of the construction time and cost. Geotechnical assessment was conducted by Geoinventions Consulting Service and proved the system suitable with the site condition.

The construction itself started in 21 August 2018 and finished 16 September 2018. This also proved that Paramesh system is a reliable, fast and effective solution compared to other conventional solutions. Thanks to this successful experience, the owner is preparing to use the same method for other pit crusher locations.

Client: PT. INDEXIM COALINDO

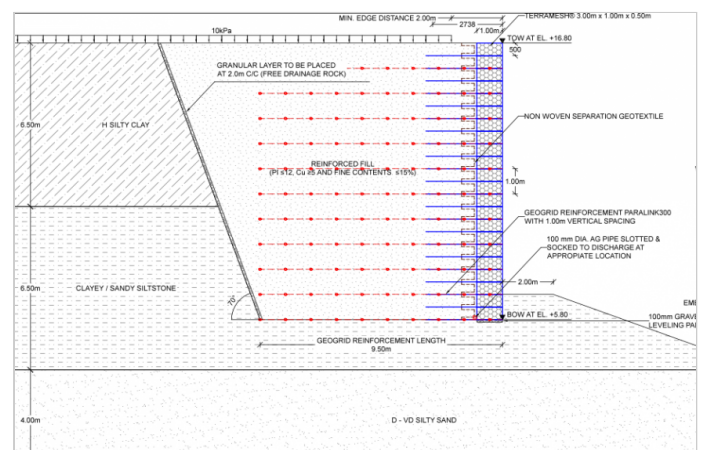
Designer / Consultant: GEOINVENTIONS CONSULTING SERVICES

Contractor: PT. JAKARTA PRIMA CRANES

Products used (Qty.)

- Terramesh 165 m²

Date of construction: 08/2018 - 09/2018



Typical Drawing of Highest Section



Site Condition Before Construction



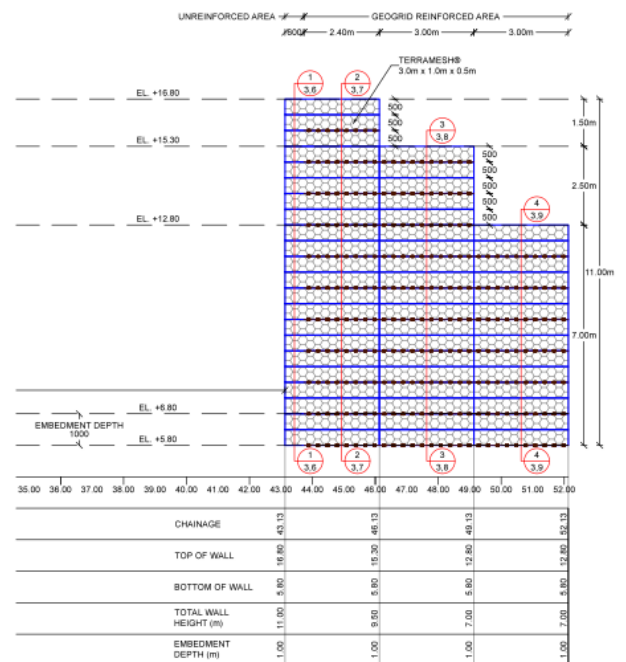
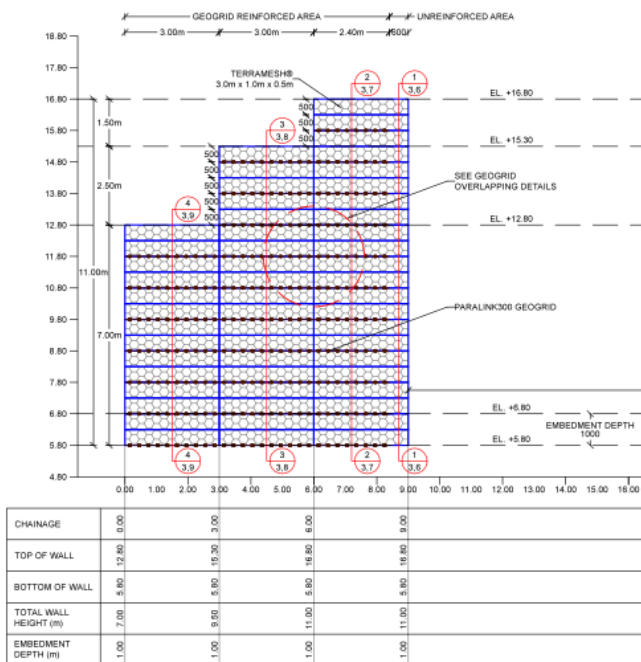
Land Preparation



ParaLink Installation



Overview of Installed Terramesh



Front View Drawing

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