SLOPE PROTECTION FOR NEW DOUBLE TRACK RAILWAY PROJECT

DOILUANG - CHIANGRAI - Thailand



TYPE OF PROJECT	YEAR OF CONSTRUCTION	CLIENT	CONTRACTOR	DESIGNER
Slope Protection	**2023**	**State Railway Of Thailand**	**CKST DC (Ch.Karnchang & STECON Joint Venture)**	**MAA**

PROD. RELATED
GeoMats (40000)

Challenge

New double track railway project, Denchai-Chiangrai-Chiangkhong route is a part of projects under transportation infrastructure development strategy of Thailand by developing inter-city railway network to enhance potential of of rail transportation services. Supporting the transportation of passengers and goods that are increasing. This new route will connect to Loas and south China, stimulate trade in the area.

Total distance of the project is 323 km, passing through 4 provinces in the north Prae, Lampang, Payao and Chiangrai consist of 4 big station out of total 26 stations with total budget of 85,345 million Baht.

The project cut through mountainous area thus contain lots of cut works that leave lots of slope that need to be protected from erosion. The existing design for slope protection are either concrete lining or geocell. The problem with concrete lining are it appearance that give hard feeling, not in harmony with nature and relatively higher cost than other solution. While geocell

has limitation on slope angle, if it too steep, geocell cannot withstand weight of gravel filling inside and torn apart eventually. Including demand for gravel that needs to be transported to the construction site and sometime when construction progress make some area no longer accessible for truck to deliver gravel.

MACCAFERRI (THAILAND) CO., LTD
121/75 RS Tower Floor 24th Rachadaphisek Rd., Din Deang, Bangkok 10400
Tel:+66 (0)2 642 3307 Email: info.th@maccaferri.com Line: @macthai



Slope Protection with Macmat



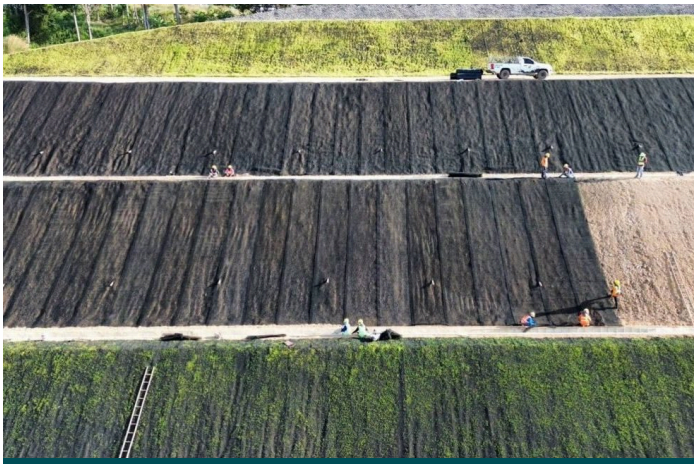
With and without Macmat

Solution

After receiving all requirement from client, we've proposed our Macmat for slope protection. The advantages of Macmat are fast and easy installation, lower cost, promote vegetation that give nature look and more sustainable.
To prove the performance of Macmat, trial section has been carried out along with several products such as geocomposite, biomat from other manufacturers. Test result shown that main different among products is the growth of vegatation that Macmat performed the best. So all the parties including project owner, consultant and contractor have positive feedback on the result. Project owner get the solution that meet their requirement and in harmony with nature, consultant get technical support from our expertise and contractor benefit from easy and fast installation.



Preparation Before Installation of Macmat



During Installation

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OPEN GOOGLE MAPS

OPEN GOOGLE EARTH

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