

ENTERTAINMENT CITY, PARANAQUE, PHILIPPINES Enhancing road stability with MIRAFI



| Industry: | Transportation |
|--------------|------------------------|
| Application: | Roadways |
| Location: | Paranaque, Philippines |
| Product: | MIRAFI® |

Overview

Entertainment City, also known as E-City, is a gaming and entertainment complex developed by PAGCOR, covering an area of 8 km² (3.1 mi²) on the reclaimed land of Manila Bay, Philippines.

Soft subgrade soil in the reclaimed area posed challenges for constructing a 2.2 km (1.4 mi) road. The initial displacement of fill material into the soft subgrade required thick fill, resulting in an inefficient filling method.

Solution

MIRAFI PET reinforced geotextiles proved to be the most economical solution for addressing the localized failure of the road embankment. These geotextiles reinforced the shear stresses of the fill material, increasing the bearing capacity of the foundation. This approach allowed for achieving the optimum embankment height over a smaller area with steeper side slopes.

The use of MIRAFI PET reinforced geotextile resulted in enhanced stability and expedited construction of embankments on the soft soil foundations. The design involved installing **MIRAFI** PET 400/50 geotextile directly over the soft subgrade. The primary machine direction of the reinforced geotextile aligned with the traverse direction of the embankment. Subsequently, the embankment fill was placed over the **MIRAFI** PET 400/50 geotextile, serving as the foundation for constructing the paved road.

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