

## DAVAO CITY COASTAL ROAD, PHILIPPINES

# Effective segmental block wall with MIRAGRID



**Industry:** Transportation  
**Application:** Roadways  
**Location:** Philippines  
**Product:** **MIRAGRID® GX**

In the Bago-Aplaya Section facing Davao Gulf towards Talomo, an elevated highway with a 90-degree vertical slope on both sides, the contractor needed to stabilize and reinforce the embankments effectively.

### Solution

For this project, a segmental block wall reinforced with **MIRAGRID GX** geogrid was chosen. This design offers fast,

### Overview

The Davao City coastal road bypass project aims to alleviate traffic congestion in the city by constructing a road from Roxas Avenue to Bago Aplaya, passing through NHA Kadayawan Homes, Matina Aplaya, and Bolton Isla. Three roundabouts will be installed along the 35 km (21.7 mile) coastal stretch at Roxas Avenue, Times Beach area, and Matina Aplaya.

Due to the region's growing population and ongoing development, traffic congestion on major roads has become a significant problem. The coastal road project aimed to address this issue.

**MIRAGRID GX geogrid possesses the necessary properties for long-term reinforcement, including high tensile strength at low elongation, minimal creep, and low installation damage.**

## CASE STUDY

Effective segmental block wall with **MIRAGRID**

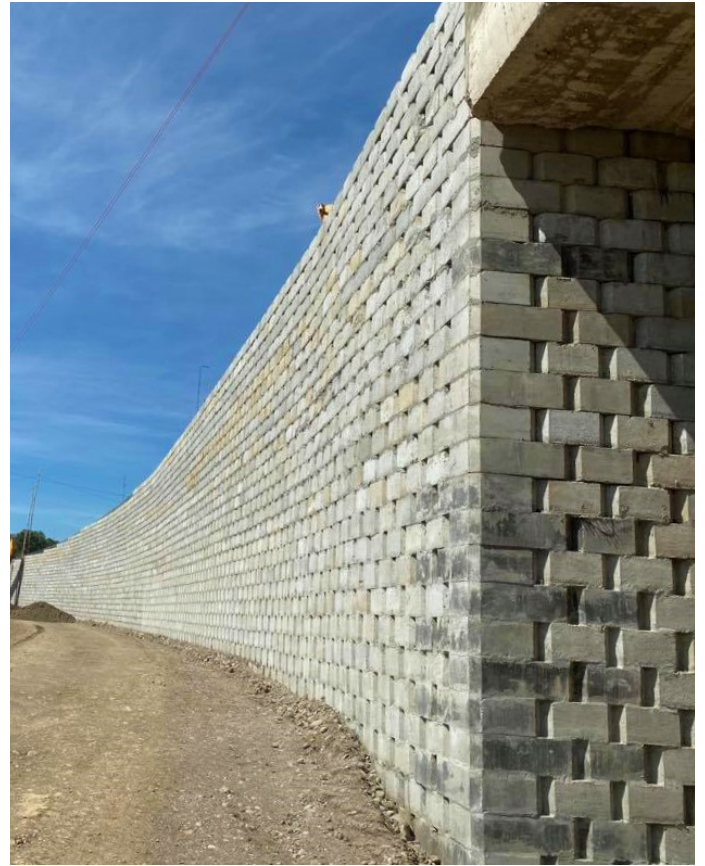
durable construction. **MIRAGRID GX** geogrid possesses the necessary properties for long-term reinforcement, including high tensile strength at low elongation, minimal creep, and low installation damage. Its superior interlocking mechanism and connection capacity to block wall systems make it an ideal choice.

### Construction

The reinforced segmental block wall system involved the use of precast concrete blocks arranged to form the wall facing. The soil/sand backfill behind the wall was reinforced with **MIRAGRID GX** geogrid. The blocks were designed with an interlocking mechanism that securely connected them. The geogrid reinforcement was placed horizontally on the soil backfill and connected to the concrete blocks at specific design heights of the wall.

### Performance

By utilizing **MIRAGRID GX**, the construction of the reinforced segmental block wall system resulted in a relatively flexible structure capable of accommodating differential settlement without causing damage. The project successfully achieved the goals of stabilization and reinforcement, while also being completed within the designated time and cost parameters.



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