

**GREEN TERRAMESH® SYSTEM RETENTION POND
CHLOORKOP**

HYDRAULIC WORKS

Product: Green Terramesh® System and Gabions

Problem

Lords View Industrial Park is situated in Midrand, Johannesburg. Lords View has been planned as an environmentally friendly and eco-sensitive industrial and logistics park. On a site like this the storm water management is an important part of the design. An attenuation pond was a part of the design to confine the storm water and then allowing the slow release into the river system.

Solution

The attenuation pond is situated at the toe of a 15m high soil embankment. Protection of this toe was needed and the consulting engineers, Goba, decided to use the Green Terramesh® System from Maccaferri Africa to form part of the environmentally friendly design of the industrial park. The Green Terramesh® System is an environmentally friendly modular system used to form vegetated (green) faced soil reinforced slopes. The design included a Terramesh® System basket at the bottom to give the extra support at the base, with 8 Green Terramesh® System units on top at a 70 degree angle and secondary soil reinforcements at 1.2m centres.

Two stepped gabion structures were also constructed within the green wall to accommodate the storm water flow. The Gabion steps were concrete capped at the terraced area to ensure no movement of the rocks during critical flow. It is of vital importance to ensure that the vegetation is effectively established on the slope of the Green Terramesh® System, as the vegetation forms an integral a part of the system as the wire and soil.



Start of construction on the green wall



View of the green wall from the gabion stepped structure



Close up view of the green wall



Close up view of the green wall

Client:

LORDS VIEW INDUSTRIAL PARK

Main contractor:

POWER CONSTRUCTION (PTY) LTD

Designer:

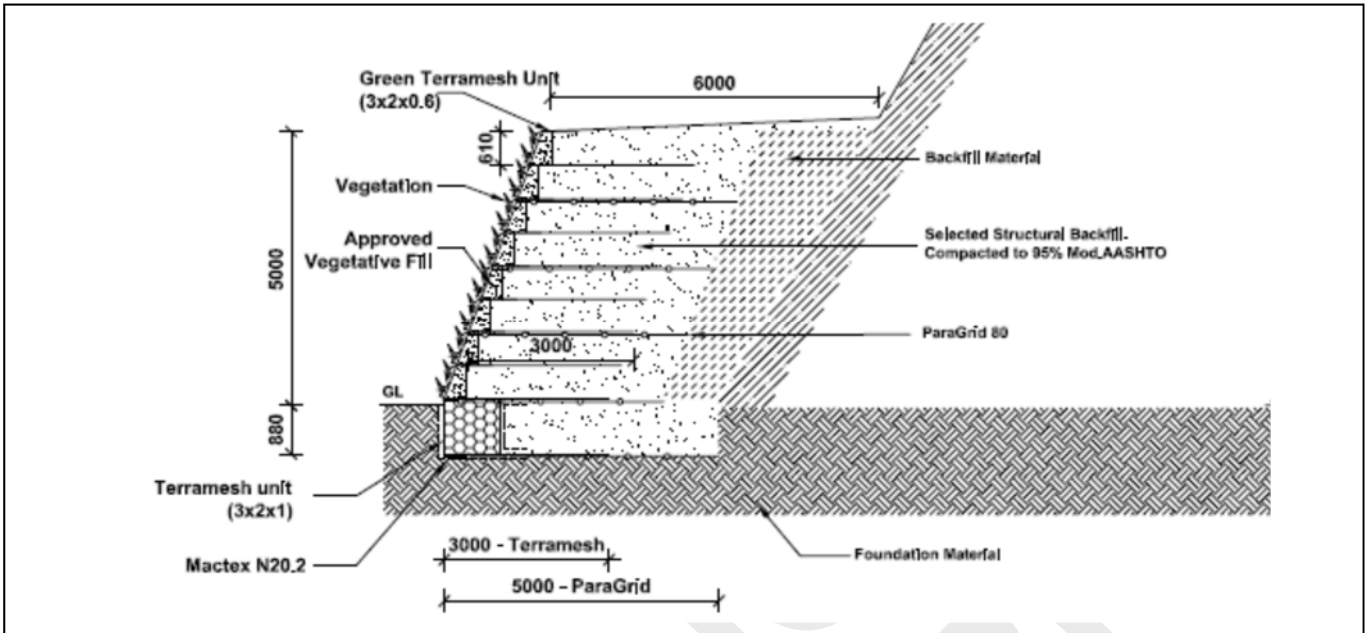
GOBA CONSULTING ENGINEERS

Products used:

GREEN TERRAMESH® SYSTEM AND GABIONS

Date of construction

2013



A typical cross section of the Green Terramesh® System



Views of the smaller stepped gabion structure



View of the stepped gabion structure

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