South Africa

IN-SITU DEWATERING WITH PVDs

NATURE OF INTERVENTION

Roadways and storage yards are often required to be constructed on good quality insitu material but where the existence of excessive residual, deep-founded natural ground water is problematic and leads to poor bearing capacity within the material.

Due to the depth of the water source, conventional subsoil drainage system are ineffective and alternative measures to allow the pore water to be removed from the area need to be considered.

Such interventions are often permanent in nature as the water source continues to yield ground water volumes. Prefabricated Vertical Drains (PVD) are an ideal method for promoting drainage in such cases. PVDs are quick to install and ensure the long term accelerated consolidation of the area thus leading to minimal disruptions and unexpected costs to construction programs.

Location:
Paarl, Western Cape, South Africa

Products:
- *V-DRAIN W100/NW2*

Quantity:
- *40 000lm*

Application:
Drainage, Dewatering, Consolidation

Date:
Nov 2024 – Jan 2025

SOLUTION

V-DRAIN W100/NW2, from Tema SA's PVD product range was supplied as the preferred PVD. V-DRAIN W is a narrow width, composite drainage strip comprising a 500gsm T-DRAIN geonet core covered in a 150gsm TemaTEX NW nonwoven geotextile which is mechanical secured in place.

The V-DRAIN W was supplied in 100m rolls which were loaded into the rig and were mechanically driven into the ground over a 1-meter centered grid to a depth in excess of 12m. These then provided for an unrestricted flow path through which the excess water pressures could dissipate while consolidating the area and thus improving bearing capacities in line with pavement design requirements.

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