

**WATER TREATMENT PUMPING STATION  
GROVE FARM, FLEET, HAMPSHIRE**

**WORKING PILING PLATFORM/SOIL STABILISATION**

**Product: Maccaferri MacGrid WG**

**Problem**

Thames Water has invested £7.2M on a scheme to reduce the risk of flooding at Grove Farm in Fleet area, Hampshire. This important scheme will help protect properties in the area from future flooding. A new pumping station will be installed to improve the existing network that is no longer able to cope the excess water flow from heavy rain. All the project will be completed in 2016.

**Solution**

Galliford Try—Morrison Construction (MGJV) is the main contractor and is dealing with all the works related: from the drainage connection to the pumping station to the building construction and services.

The new pumping station will be built onto piling foundation. Due to the characteristics of the soil, with CBR = 1.50 % a reinforced mat has been designed in order to create a suitable support for the heavy 140 tonnes Liebherr crane and for the sheet piles and piling rig machine.

A solution with 2 layer of MacGrid WG 5S within a well graded granular compacted material has been chosen from the client in order to support the heavy cranes during the works.

This type of MacGrid consists in a woven geogrids, made from high molecularare weight, high tenacity polyester multifilaments yarns. The yarns are woven under tension in the machine direction and finished with polymeric coating.

The WG is a cost effective solution and provides long term control of deformation and rutting with soft subgrades or high axle loads.



During Construction



During Construction



The Liebherr crane supported by the reinforced MacGrid WG piling mat



Piling rig crane supported by the reinforced MacGrid WG piling mat

Client:

THAMES WATER

Main Contractor:

MGJV - Morrison Galliford Try JV

Products used:

3,120 sqm MACGRID WG 5S

Date of construction

March 2015

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