



Case

STUDY

ARMORMAX®

Princess Risborough
Reinforced Slope



MARKET SECTOR:
Residential



LOCATION:
Mears Homes, Longwick Road,
Princes Risborough, HP27 9RS



DESIGNER:
Geoman Ltd



INSTALLER:
Geogrow Ltd

The BACKGROUND

ARMORMAX® is an independently tested engineered earth armouring system comprising PYRAMAT, a High Performance Turf Reinforcement Mat, and Percussion Driven Engineered Earth Anchors.

The two elements work together to lock soil in place and protect against hydraulic and non-hydraulic stresses providing a dynamic erosion control and surficial slope stabilisation solution.

Our Client's REQUIREMENTS

A sustainable solution for a reinforced slope to a swale

Mears Group PLC contacted Geosynthetics Ltd to investigate the 1V:3H side slope to a swale running through a new housing development.

The slope height varied between 1.5-2.5m high and had been constructed from made ground and was thought to be unstable.



Our Value Engineered **SOLUTION**

Having visited site Geosynthetics undertook analysis using Slope/W slope stability software which confirmed the suspicion that the slope was unstable.

Various solutions, such as a low height retaining wall to slacken the angle, were then discussed with the client before the ARMORMAX® system was chosen.

This proved to be the most cost effective, and least disruptive to the existing slope which most importantly increased the slopes Factor of Safety to an acceptable 1.5. In total, 35m of swale was remediated by specialist contractor Geogrow Ltd, who removed the vegetation, before installing the PYRAMAT erosion matting and earth anchors.

The anchors were driven through the mat in a diamond pattern to the design depth before being 'load locked'. Finally the stabilised slope was topsoiled and hydro-seeded to allow the slope to revegetate and provide a green, visually soft but structurally stable solution.

