

Alkborough Tidal Defence Scheme.

Project: Creation of Flood Storage Area.

Client: Environment Agency, Leeds.

Consultant: Halcrow Group, Peterborough.

Contractor: Volker Stevin, Gateshead, Tyne & Wear.

Products: Armorflex 140 and Abtex 12/10 geotextile

Date: Summer 2006.

Introduction.

The Environment Agency had determined that there were flood defence benefits by the creation of a flood storage area at Alkborough, N. Lincs to allow water from the tidal River Trent and Humber Estuary to flood onto the Flats during extreme events, thereby reducing tidal levels in the river and estuary.

Solution.

The Consultants, Halcrow Group at Peterborough, determined that to achieve the above, the lowering of the tidal defence immediately adjacent to the river and the construction of an overspill weir 750m long along the lowered defence was required.

Protection to the crest and back slope of the weir was needed to prevent scour when the weir operated and Armorflex 140 cellular concrete block mattresses were chosen to meet this demand.

In total 11,000m² of mattresses were supplied to the Contractor, Volker Stevin of Gateshead, Tyne & Wear and laid in Summer 2006.

A 5-35mm angular gravel was brushed into all the tapered joints and other openings to increase the interblock friction.

Conclusion.

As can be seen on the photographs, indigenous plants have started to establish themselves by self-seeding in the openings which will, in due course, provide a vista whereby the protection will have merged in the landscape whilst still being able to carry out its function.

