

# Landfill Cap Drainage

Pozidrain, Haulbowline Island Capping, Cork, Ireland



Engineering Project of the Year 2019

CASE STUDY

## Project Description

Cork County Council's East Tip is located on the Haulbowline Island near the town of Cobh in Ireland. The site was a dumping ground from the former Irish Steel factory and an unsightly legacy from its industrial past. In 2005 the Haulbowline Island site was found to be in breach of the Waste Framework Directive. The European Commission accepted Cork County's proposed remediation strategy for this environmentally sensitive site.

The Sirius Group and P.J. Hegarty & Sons designed and constructed this complex restoration project for Cork County Council. The project was awarded the Best National Engineering Project of the Year 2019.

## The Challenge

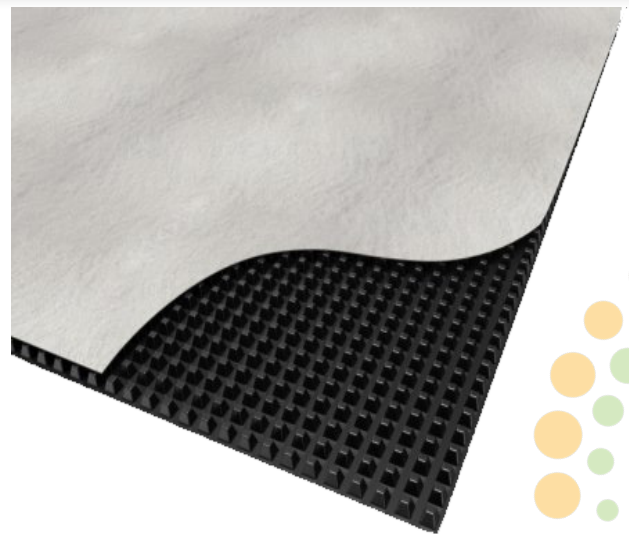
The Lower Harbour and the town of Cobh are leading tourist attractions and popular cruise destinations. The visual impact of the East Tip, with a huge volume of unsightly waste in the vicinity, was unacceptable and detrimental to this tourist destination.

A comprehensive risk assessment for the remediation of the East Tip and capping of 650,000m<sup>3</sup> of industrial waste was required to transform this steelworks site into an outstanding public recreational amenity.

The requirement was to design and construct a capping system that maximised use of the existing materials and would meet all environmental constraints in difficult marine conditions.

## Project Information

<b>Client</b>	Cork County Council
<b>Contractor</b>	P.J. Hegarty & Sons
<b>Product</b>	Pozidrain 6S250D/NW8 & 6S250/NW8
<b>Quantity</b>	90,000m <sup>2</sup>
<b>Benefits</b>	<ul style="list-style-type: none"><li>• High flow capacity in both directions</li><li>• Enabled maximum re-use of existing soils</li><li>• Good puncture resistance</li><li>• Large rolls for fast installation</li></ul>



ABG Pozidrain  
Geocomposite drainage layer

ABG LTD

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a Bontexgeo Group company

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## The Solution

Remediation of the East Tip required a highly complex design solution and engineering works in this ecologically sensitive marine environment of Cork Harbour.

The Sirius Group designers worked with ABG to develop a geosynthetic capping solution that would provide adequate protection, drainage capacity and frictional performance to ensure slope stability. **Pozidrain 6S250D/NW8** and **6S250/NW8** geocomposite drainage layers were specified and installed on top of the 1mm LLDPE textured membrane with 1m of soil cover. The project was delivered on time and below budget.

Cork Harbour has been completely transformed by the remediation of the East Tip, with excellent benefits for the local residents and a positive impact on society.

## The ABG Service

ABG provided design assistance, slope stability calculations and delivered materials to site.



Large Pozidrain geocomposite rolls enabled rapid installation and excellent drainage performance



Completed restoration project



Pozidrain geocomposite drainage installation

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