



Reinforced earth retaining wall alongside reservoir slipway using WebWall

Ramsden reservoir was constructed in the Victorian era. It is one of four reservoirs in the Holme Valley that supply Holmbridge Water Treatment Works, which in turn provides mains water to the major urban populations of Dewsbury, Batley and Heckmondwike.



Webwall structure mid-installation

Project Information

Project Construction of reinforced fill embankment using Webwall.

Products

- Webwall
- Trigrid
- Fildrain

Contractor J N Bentley

Client Yorkshire Water

Designer Yorkshire Water

Benefits

- Cost saving
- Time saving
- Reuse of site materials

WebWall Retaining Wall

To ensure continued compliance with the Reservoirs Act 1975 Yorkshire Water identified a need to upgrade the existing spillway to account for a 1 in 500 year flood event.

ABG was invited to design a retaining wall structure which allowed the embankment next to the spillway to be steepened. The Holme Valley is popular with anglers, hikers, cyclists and other leisure users, and the works had attracted a lot of interest from the local community.

The solution using Webwall was selected as it met the brief of exerting no additional pressure on the back of the reinforced concrete spillway wall, while providing an attractive vegetated finish.

Webwall offered a further advantage as it uses

existing fill from the site, so reduces the need to export excavated material and import structural fill. This significantly reduces the number of vehicle movements around the site and avoids costly removal of spoil to landfill.

For this project the Webwall was produced in a bespoke colour to the clients requirements. The colour was selected to blend into the background of the local soil and heathers minimising the visual impact of the wall whilst the vegetation was establishing.

ABG designed the structure incorporating Trigrid EX, a polyolefin coated polyester geogrid that gives high strength at low strain.

ABG Fildrain was used to ensure sufficient drainage within the structure and remove the need to import any high-cost drainage aggregates.

The Contractor constructing the Webwall had no experience of using the product, so an ABG Installation Manager visited site to train the site team and supervise the first few days of installation.

Webwall is easy to install, and the structure was built more quickly than expected. After construction and intentionally minimal planting was undertaken so the majority of the wall was left to self seed from the local flora, meaning a low maintenance finish in harmony with the local environment was achieved.

After 6 months the Webwall facing was almost completely obscured by the established vegetation.

Contact ABG to explore how Webwall could assist your client to achieve a sustainable, cost-effective and carbon neutral solution.



Embankment post installation

Case Study



ABG are a market leading developer and manufacturer of high performance geosynthetic systems for use in a wide range of civil, highway, environmental and building projects. Established for 25 years and based in the UK ABG pride themselves of delivering outstanding customer service with innovative solutions.

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