

SCHEME

Gowerton area, South Wales

CLIENT

Welsh Water Capital Alliance

CONTRACTOR

David Lewis Civil Engineering under the Alliance in South West Wales, a strategic partnership between Welsh Water and Morrison Construction Services Ltd

PIPE APPLICATION

2500mm, 1800mm, 1500mm and 1200mm diameter WEHOLITE HDPE Class 2 kN/m³



WEHOLITE pipes, the most cost-effective option for South Wales stormwater projects



Construction on target thanks to the innovative use of WEHOLITE pipes supplied by ASSET International Ltd to the Welsh Water Capital Alliance. Pictures courtesy of the Swansea Evening Post

Large diameter plastic pipes have been identified by Morrison Construction as the most cost-effective and environmentally-friendly option for storage tank construction in its on-going series of sewerage improvement and optimisation projects in Swansea.

Projects undertaken in Gowerton since February 2004 have involved more than 406m of WEHOLITE structured wall plastic pipe and pre-fabricated assemblies.

They are part of an innovative programme to provide additional storage for storm run-off rainfall, preventing overspill from Combined Sewer Overflows (CSOs) into rivers and streams in the area.

An additional 1034m³ of emergency storage has been added to the local network. Pipework on the projects was installed by David Lewis Civil Engineering.

Morrison Construction looked at various options when planning the main storage schemes for the Welsh Water projects. "As well as a cost-effective easy-to-install option, which would provide additional water storage in storm conditions, our choice needed to be environmentally- friendly," said Procurement Manager, Andrew Wedlake.

THE ESSENTIAL SOLUTION FOR PIPE USERS NATIONWIDE

CONTACT ASSET International Ltd:

Head office: Stephenson Street, Newport, South Wales, NP19 4XH
Tel: 01633 271906 - Fax: 01633 290519 - E-mail: sales@assetint.co.uk - Web site: www.weholite.co.uk

Scottish office: 1 McMillan Road, Netherton Industrial Estate, Wishaw, Lanarkshire, ML2 0LA
Tel: 01698 355838 - Fax: 01698 356184



"WEHOLITE pipes are cost-effective, durable and do not involve the same time-consuming installation process as concrete pipes. We have undertaken numerous projects within the area over the past few months and WEHOLITE pipe has proved the best option for these projects."

The first project, which was completed at the start of summer 2004, involved the construction of a 214m³ attenuation tank made up of two 35m lengths of pipe, each 2.5m in diameter. This tank was supplied with a built-in Alpheus control unit and associated horizontal wave screen plus an overflow chamber.

According to Morrison, this is the first time that both an Alpheus flow control unit with a built-in horizontal wave screen plus an overflow chamber have been used in conjunction with WEHOLITE. Thanks to the elimination of the traditional concrete structure needed to control the overflow into the WEHOLITE tank, a dramatic cost saving was achieved.

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The second project, constructed alongside a main road in the Gowerton area, included a 370m³ tank assembled from 146m of 1.8m diameter WEHOLITE pipe.

The third project involved the construction of a 450m³ attenuation tank 5m below a busy main road. The unusual design of this project comprised of a 35m length of 2.5m diameter pipe which narrowed to 74m of 1.8m diameter, then 34m of 1.5m diameter and finally into 47m of 750mm diameter.

A further two schemes have also been installed, adding an additional 760m³ of emergency storage to the local network and utilising 215m of WEHOLITE pipe.

On all of these schemes, the relative light weight of WEHOLITE compared to concrete alternatives - more than ten times lighter, depending upon the size of pipe - meant that the number of journeys made by delivery lorries through the city was greatly reduced. As well as obvious cost savings, there was a significant benefit to the local environment.

WEHOLITE was also much easier to move around on-site, and as more fabrication took place in the Newport factory rather than on the actual site, there were health and safety benefits for contractors.

Andrew Wedlake added: "We wanted to bring disruption for local residents and road users in the city to a minimum and with the speed and convenience in handling WEHOLITE pipes, we now specify WEHOLITE as our preferred option for future contracts."