

Case Study

Littledean Sewage Treatment Works Storm Tank Installation

Client:

Severn Trent Water Limited & Hafren Dyfrdwy Cyfyngedig (HD)

Contract:

Asset Maintenance Services (AMS) Contract
Civils Framework - Lots 1 to 6
Cover all Severn Trent and HD Geographic Regions

Contract Type:

Severn Trent Framework Agreement

Value:

£2.4M per annum (Y/E 30/06/23)

Duration:

01/04/2021 – 31/03/2024 (options to extend)

Referee:

Jim Allen, Contract Specialist

Contact:

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Services provided include:

Minor civils works including planned groundworks, concrete, kiosk plinths, reed bed associated groundworks, cover fabrication and installation.

Details:

Gardiners have been a framework contracting partner to Severn Trent Water for over 30 years, providing buildings maintenance and minor civils services to the client's assets across their clean and wastewater infrastructure. In 2021, Gardiners were awarded a place within Severn Trent Water's Tier 2 Civils Asset Maintenance Services contract, covering their whole geographic region across central England and Wales.

The scope of works undertaken include the following:

- ◆ Groundworks including safe dig and service location works
- ◆ Concreting works
- ◆ Bay construction (load bearing) using vertical steels and concrete section walling
- ◆ Stone gabion walls and associated earthworks
- ◆ Sectional concrete chamber installations
- ◆ Footpaths, paving, steps and handrails
- ◆ General surface drainage including excavation and installation
- ◆ Pipework repairs, reed beds and associated groundworks
- ◆ Associated temporary works (barriers, formwork, traffic management, welfare)



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Project Example

Littledean STW Storm Overflow Tank Installation

Value

£160K



Project Details:

A site requirement to increase storm overflow water capacity at the sewage treatment works required the installation of a 3-metre diameter concrete sectional chamber with associated groundworks. Due to the sloping nature of the site and limited access, construction design was altered in consultation with the Principal Designer from the PCI, to accommodate a safer working methodology.

The sloping nature of the site would have required an excavation with associated trench support of over 4.5 metres and made the sectional installation difficult. Gardiners solution was to initially level a section of the banking to form a level base for further excavation. In addition, due to a difficult access to site, re-grading

of the ground was necessary to provide a stable base for crane and excavator access.

A 3½ metre deep excavation was formed, supported by 6 metre trench sheeting with wailing arms. The tank sections were craned into place, sealed and backfilled once connections were established.

To secure the sloping site, whilst retaining a level access to the new tank, gabion baskets were utilised. Sheet trench supports were installed, a slightly leaning base was excavated and gabion baskets assembled and filled by hand on site. The excavated soil was utilised to regrade and backfill the banking.