

SYLWRAP Case Study

Encapsulation of Capped Pipe Stub at Landfill

A capped pipe in a decommissioned drainage system at a landfill site is encapsulated to protect it from corrosion and a potential leak of toxic leachate



The stub needing encapsulation was difficult to access at the bottom of a chamber surrounded by metalwork

Defect

A series of underground drainage pumps were found not to be working at the landfill site. Rather than replace them, it was decided to decommission and install a replacement system.

All pipes at the start of the old network had to be capped. To reinforce after capping, the site wanted to encapsulate the main pipe stub and its flange plate to protect against corrosion and future failure, which could lead to the release of toxic leachate.

Solution

The stub protruded 300mm from a concrete wall towards the bottom of a chamber. There was little room to move and access was further restricted by various metal structures above the stub.

An engineer from Arch Services accessed the chamber. The flange and stub were coated with several layers of **Liquid Metal Epoxy Coating** to create a new metallic surface which would act as an external shield against corrosion.

The stub was then encapsulated with **SylWrap HD Pipe Repair Bandage**. SylWrap HD was applied around the stub and smothered over the plate. Once cured, it provided a rock-hard, impact resistant protective covering for the pipe.

Result

Arch said after the successful completion of the application: "Given the bolts and tap on the flange and cramped application position, this was not a 'pretty' repair. But it absolutely did the job!"

The site was left with full confidence that the old system was suitably sealed off and that the reinforced capped pipe would not fail in future.



Liquid Metal shielded the flange plate from corrosion



SylWrap HD was wrapped around the stub and smothered over the flange plate for protection



Completed repair with the entire stub encapsulated