

SYLWRAP Case Study

Corroded Porth Pipe Bridge Refurbishment

Dwr Cymru Welsh Water use the Sylmasta Pipe Refurbishment System to save nearly £200,000 by repairing rather than replacing a dilapidated pipe bridge



Corrosion had breached the pipe in several places

Defect

The gravity-fed bridge crossing the Rhonda River in Porth was made up of a 300mm, 20-metre long steel pipe rested inside an angle-iron structure.

Dwr Cymru contacted Sylmasta for repair advice and appointed *Arch Services* as contractors. An inspection by *Arch* revealed the pipe to be covered in corrosion, leaving large holes in several places.



Liquid Metal was painted onto the pipe, curing to form a new, impermeable metallic outer surface

Solution

The holes were too big and the pipe too brittle to be repaired with putty, so *Arch* layered large fibreglass patches over the cracked sections to seal the leaks.

Several layers of **Liquid Metal Epoxy Coating** were then painted onto the pipe and the steel hoops and beams holding it in place, using a roller.



SylWrap CR was carefully applied to the whole line, providing further reinforcement and protection

Once cured, Liquid Metal formed a hard-wearing, smooth, metallic, impermeable skin around the pipe. This new outer surface would prevent further corrosion and ensure fluids could no longer escape.

To further reinforce the pipe and reinstate integral strength, the line was wrapped with four layers of **SylWrap CR Corrosion Protection Wrap**, which formed an impact-resistant protective shell.

Result

The repair cost £12,000 in total and took three days to complete. It left a smart-looking, fully refurbished pipe bridge protected from future corrosion and breaches.

Replacement in contrast had been estimated at over £200,000 and a month-long project. Sylmasta and *Arch* had saved Dwr Cymru a significant amount of time and money.

