

CASE STUDY

LINK-PIPE INC.'s LINK-PIPE GROUTING SLEEVE™ LOCAL REPAIR SYSTEM

Background

The Link-Pipe Grouting Sleeve is manufactured by Link-Pipe Inc. of Canada. It is a local repair system developed for the structural renovation of gravity sewers.

The system comprises a stainless steel structural core which uses a mechanical lock to hold it against the host pipe, absorbent foam gasket surrounding the core, and limit straps to prevent overloading the host pipe.

The annular space around the structural core is filled with a polyurethane gasket, impregnated with grout on site. The liner is located at the defect area and an inflatable packer used to expand the sleeve until the locking devices engage. A foam grout expands to fill the annular space and penetrates pipe cracks. The complete system for a composite structure with the host pipe.

Scope of assessment

To assess the performance and effectiveness of the Link-Pipe Grouting Sleeve sewer repair system developed by Link-Pipe inc.



Programme

1. Assessment of the structural performance of the grouting sleeve inside a broken pipe in WRc's Underground Test Facility
2. Technical audit of the product specification, quality control, design methods and installation method.
3. Witnessing site installations and assessment of installation procedures.

Results

It was concluded that the Link-Pipe Grouting Sleeve has the capability to reinstate a broken sewer pipe to its original structural strength.

Certificate PT/134/0501 was awarded in May 2001 for the Link-Pipe Grouting Sleeve™ for the structural renovation of sewers (150mm – 1350mm).

In addition, Certificate PT/135/0501 was awarded to Cemtex Link-Pipe following successful site audits undertaken in Cairo, Egypt. Cemtex Link-Pipe are now a 'WRc Approved' contractor for the installation of the Link-Pipe Grouting Sleeve™.