

No Dig Sectional Repair (NDSR)

Sectional Point Repair

A no dig sectional cured-in-place repair is generally the most practical and cost effective alternative to traditional sewer replacement by excavation. Leaking joints, cracks and root intrusions can be repaired allowing savings in costs and time in addition to reducing the impact on the environment. The lining material is composed of a felt tube or fiberglass mat that is saturated with epoxy, polyester or vinylester resin. The saturated material is then placed on an inflatable carrier known as a packer. The packer is positioned over the damage pipe section in the pipe through the manhole access. Once positioned the packer is inflated to press the saturated material against the pipe, holding the material in place until the resin is cured. The repair will have a smooth tapered finish at the ends, between the repair and the host pipe.

The entire process can be observed with a CCTV camera to ensure proper installation. CIPP repairs can usually be done on pipe diameters from 100mm-600mm and in lengths varying from 600mm to 6000mm. Our experienced technicians utilise a trenchless 'winch in, inflate and cure' method to install the No Dig Repairs.

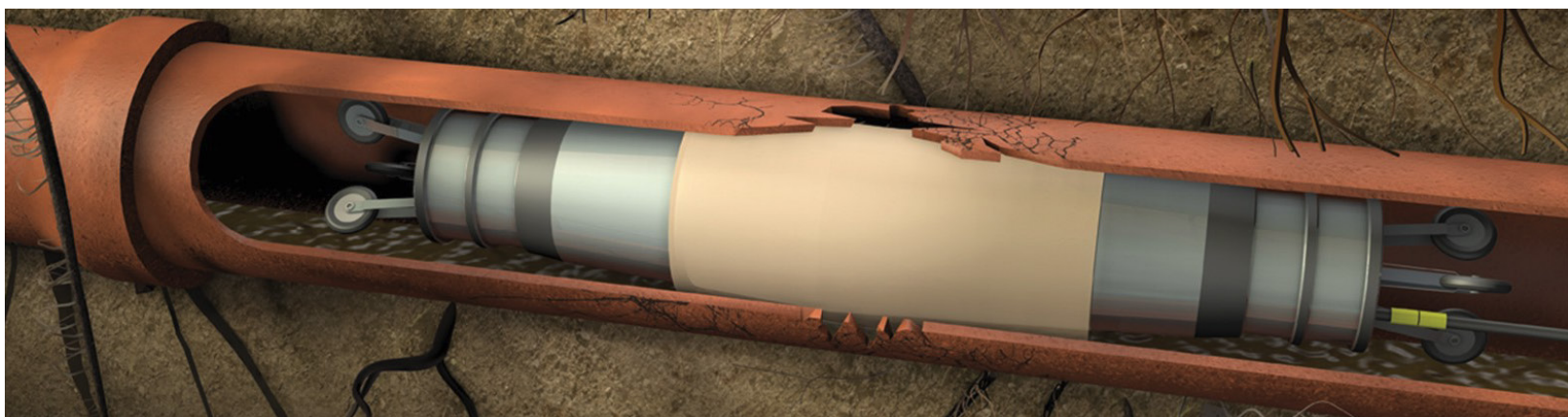
Structural Integrity

Our CIPP sectional repair has been tested and complies with the CIPP Specification ASTM F1216. The above specification requires the repair to restore the structural integrity to the damaged pipe for a design life of 50 years.

Flow Capacity

Our CIPP sectional repair utilises materials for optimum thickness and minimum pipe diameter reduction. The resulting smooth interior surface and tapered ends will significantly improve the overall hydraulic capacity of the repaired pipe section.

This minimal reduction in pipe diameter is compensated by the improved smoothness of the repaired section which typically improves the overall flow capacity.



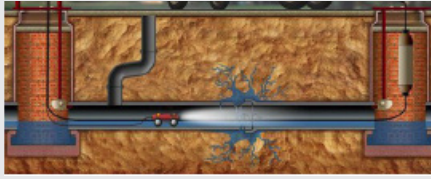
Quikshot trading as NZ Lining
580D Rosebank Rd, Avondale, Auckland 1026
PO Box 71171, Rosebank, Auckland 1348
Phone: 09 820 0407 Email: info@nzlining.co.nz



www.nzlining.co.nz



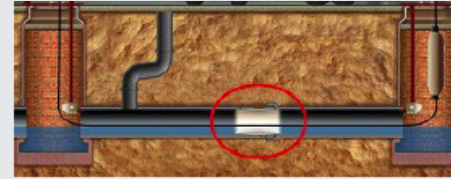
The NZ Lining NDSR Installation Process



Step 1 - Investigation



Step 2 - Installation



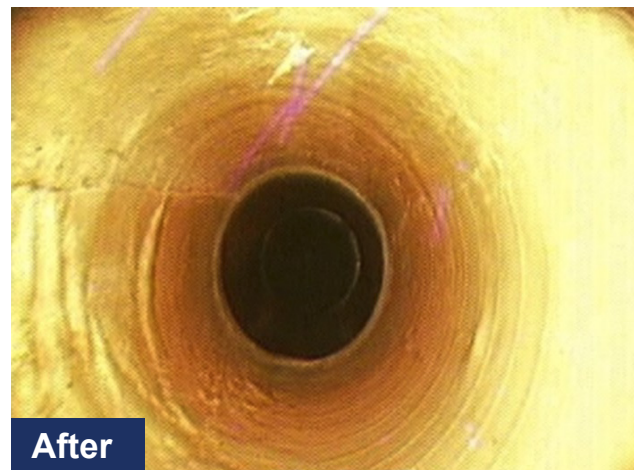
Step 3 - Final Product

Advantages

- Restores structural integrity of original pipeline
- Manufactured to high quality standards
- Stops water infiltration and exfiltration, root intrusion and soil loss
- Repairs are completed 'trenchless' without the need of conventional methods of pipe repair by excavation
- Resin fills in cracks and bridges gaps
- Environmentally friendly
- Minimises public inconvenience
- Low cost installation
- Fast installation using existing manholes
- Ground de-watering not required



Before



After

The NDSR Technical Envelope

Diameter Range	100mm—600mm	pH Range	0.5—10.5
Pipe Condition - Fully Deteriorated	Yes	Pipe Condition - Partially Deteriorated	Yes
Test Specifications	ASTM D790	Design Standards	ASTM F1216
Host Pipe Material	All Materials	Effluent Temperature	Up to 120°C
Types of Resins	Epoxy, Vinylester Epoxy, Polyester Resin to suit the pipe application	Design Life	50 Years