

A WORK IN PROGRESS

Interflow is working with the Liverpool City Council as part of a five-year contract designed to give a fresh face to its century-old underground concrete drainage network.

Liverpool City Council covers 42 suburbs in southwest Sydney and its 600 staff service a rapidly growing community of some 220,000 people. The region has a long history dating back to when the town of Liverpool was founded by Governor Lachlan Macquarie in 1810.

Among other responsibilities, the council manages over 590 km of piped drainage and an associated stormwater drainage system with a current replacement cost of over AU\$418 million. This includes a network of underground concrete stormwater drains that have been in service for up to a century.

While underground stormwater drains may be out-of-sight and out-of-mind, concrete pipes deteriorate over time through corrosion, abrasion and ground movement. Deterioration can lead to flooding during rain events and the possibility of dangerous holes and subsidence forming at the ground surface.

With this in mind, in 2010 the Council embarked on an extensive investigation into the condition of their oldest underground assets, then developed and commenced a rehabilitation program. The 10-year program includes systematic internal surveying of the stormwater pipe system to determine its current condition and performance.

Also in 2010, the council established its first List of Recognised Contractors and issued associated Standing Offers for drainage pipe rehabilitation works. At that time up to AU\$1.2 million was budgeted annually for the rehabilitation works and Interflow was appointed to complete rehabilitation work as part of a five-year contract.

This five-year structure offers benefits as council and the contractor get used to working together as partners, enabling the council to proactively develop maintenance and renewal strategies that are responsive and cost effective.

In 2015 the council established its second List of Recognised Contractors and the rehabilitation works continued. Thus far the relevant steps in the project have included:

- Obtaining detailed knowledge of the current condition of the underground stormwater drainage assets
- Analysing the results using a risk-based project selection system to prioritise required actions
- Completing the works in accordance with the priority assigned.

The council contracted Interflow for the structural rehabilitation section of the works including cleaning, lining, patching and civil works where required. The works are effectively renewing the underground drainage system using methods that cause minimal community disruption.

This is important as the location of the oldest underground pipes and conduits in the built-up areas means that digging up and replacing those that have reached the end of their effective lifecycle would be unfeasibly expensive and unacceptably disruptive to the community.

At the time of writing, the inspection and rehabilitation of some

110 km of stormwater conduit had been completed using trenchless methods.

The effectiveness of the program can be seen in areas that were previously prone to flooding after heavy rain. Incidences of flooding have largely been eliminated and there has been a major reduction in complaints from customers.

As well as prolonging the lifecycle of the stormwater assets, the works are taking place in a manner that will allow Liverpool City Council to continuously provide the standard of service expected by the community.

This project provides an example of excellence in how metropolitan councils can renew vital but often neglected assets, so that their underground stormwater drains can continue to provide service for 100 years or more into the future. **T**

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