FORTH BRIDGE
Watermain Replacement

TASK

The project was to replace 86m of pipe and associated connections along the Forth River Bridge at Forth. The pipeline is 150mm diameter and a combination of MSCL along the bridge and PVC on the buried connections.

The Forth River Bridge is an important connector for rural communities and businesses as an alternative to travelling along the Bass Highway and therefore higher traffic volumes. There is a primary school and large vegetable factory close by that keep traffic volumes busy throughout the entire day.

CHALLENGES

Shaw were responsible to procure and install the MSCL pipe in a tight timeframe. Ensuring all these components were delivered in the timeframe to the quality was essential. There could be no on-site adjustments to MSCL so quality control prior to placement was critical.

As the road was quite busy Shaw lifted the MSCL pipeline segments onto the pipe hangers in one piece using a two-crane lift with spreaders. This limited the bridge traffic closure to under 30 minutes. This required a bridge load study and crane lift study prior to the works. The lift itself progressed safely and smoothly with only minimal traffic delays.

The MSCL pipeline was installed over the rail of the bridge. Shaw engaged specialist rope access contractors who could work outside the handrail to install the pipe hangers, connect flanges and secure the pipe to the hangers. They also demolished the redundant pipeline once the pipeline was commissioned – including bacteria testing.

In addition to the difficulties of maintaining traffic across the bridge, works needed to be cognizant of the river below, so activities were planned and executed to avoid material dropping into the river. No personnel, tools or pipe components were dropped during construction.

OUTCOMES

Shaw Contracting completed the works safely, to expected quality. Our superior methodology meant reduced impact to local traffic along with no pollution of the river below.