



## CaseStudy

### Keeping Auckland's Water Supply on the Move

#### Challenge

With a growing population and a need to increase the security surrounding Auckland's water, Watercare is constructing a new watermain. Known as Hunua No.4, the watermain will run 28kms from Redoubt North Reservoir in Manukau to Campbell Crescent in Epsom, connecting to the existing local water supply network along the way.

The challenge for Watercare is to prevent water ingress where the pipes, which are up to 1.8m in diameter, enter the concrete valve chambers along the new watermains system. The completed work is underground so it is vital that the finish is professional and watertight.

#### Solution

With our extensive expertise in Rubber lining we have been able to provide the team at Watercare the right solution to prevent water ingress. Our solution involves a robust, strong rubber boot around the pipe as it enters the valve chamber. 40 rubber boots are required across 10 sites along the water main.

The boot is fabricated from 10mm thick natural rubber which is formulated to meet the conditions that the boot will be exposed too. It was chosen because of its resistance to UV, but more importantly, the resistance to the growth of micro organisms present in soil that can attack and degrade the rubber.

The boot is fabricated in sections in our workshop and then installed on site. On site the boots are cold bonded. Cold bonding is when an adhesive is used to bond the wear resistant rubber sheet to the pipe and valve chamber. The installation can take up to 2 days depending on the site conditions which can often be challenging due to weather, mud and water!

#### Results

To date we have completed 5 sites. The construction of the water main is expected to be completed in 2016.

The rubber boots that have been installed are operating efficiently, preventing any water ingress between the pipe and the valve chamber. The team at Viking have worked in challenging conditions to ensure the installation has met critical project deadlines. We have certainly gone the extra mile on this project!



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