

METRONET – Denny Avenue Water Mains Replacement

Removed and replaced 100-year-old water main on Albany Highway that supplies the Perth CBD.



Project Need

METRONET is the largest infrastructure project in the public transport sector to be delivered in Western Australia which will accommodate and provide sustainable growth in Perth. Denny Avenue Level Crossing Removal forms a critical part of the METRONET project, and which aims to improve safety and reduce traffic congestion.

As part of this project, a 100-year-old riveted steel water main that services the Perth CBD was required to be removed and replaced due to deterioration. Initially, the project aimed to replace 400m of old water mains, however the customer requested an additional 600m of Sintakote® MSCL pipe, extending the scope of work to be 1km. The additional pipe was required to replace further sections of the main as a measure to prevent any future shutdown periods that may be required for rehabilitation works.

Solution

The project was awarded to Downer Group Joint Venture- who engaged Steel Mains in December 2019 to supply and deliver the MSCL pipes for the water mains replacement. Steel Mains worked collectively with Water Corporation and associated contractors and designers to meet the project requirements. The project was completed with 1km of Sintakote Steel Pipes in diameters of DN600 and DN900 both with Sintalock® Type - I joints. The manufacturing of the pipes was carried out in two stages due to the change of pipe quantities needed and was stored at Steel Mains' Kwinana manufacturing facility upon the client's request.

Achievements

This project demonstrates the flexibility of Steel Mains to ramp up production requirements to meet customer's variable changing needs. Steel Mains also holds safety to a high regard which was evident through pre-roping the pipes to ensure safe offloading onsite. Additionally, by selecting Sintalock I joints, there was no need to enter the pipes for internal welding or to conduct cement mortar lining reinstatement. Thereby with the use of Sintalock Type – I, safety was increased, corrosion protection was enhanced and construction laying rates were improved.

This project will improve the security and reliability of the water supply to the Perth CBD for decades to come. It will also provide an upgrade to the Albany Highway surface and storm water drainage system, revitalizing the Kelmscott town centre. The project has completed its final stage with the pipeline completely laid, hydro-tested and tied into the water mains.

Project: METRONET – Denny Avenue Water Mains Replacement

Principal: Water Corporation

Location: Albany Highway, Kelmscott, Perth

Completion: 2021

Supplied: 1 km of MSCL SINTAKOTE® DN900 & DN600; Sintalock® - I Pipeline