

MICROTUNNELLING FACILITATES DRAINAGE CULVERT INSTALLATION

One of Australasia's leading microtunnelling contractors, D.J. Mac Cormick, has installed culverts vital to the upgrade of a busy motorway in Queensland. In addition to completing the pipe jacking installation, the contractor also managed the design and construction of launch and receival shafts; safety, quality and environmental management; as well as monitoring.

D.J. Mac Cormick Contractors recently completed a microtunnelling project to install drainage culverts under the Pacific Motorway in Brisbane, Queensland.

The culvert installation is part of the Pacific Motorway Upgrade – M1/M3/Gateway Merge Project which is upgrading approximately 3.8 km of southbound lanes of the Pacific Motorway between the Gateway Motorway and Rochedale Road.

INSTALLATION

The project involved the installation of four culverts crossing beneath the motorway, ranging in length from 69 to 90m, with a total distance of almost 300 m. The pipelines were microtunnelled in close proximity to existing culverts, using jacking pipe with an outside diameter (OD) of 1,800 mm.

Launch and receival shafts were designed and constructed by D.J. Mac Cormick, while the required shoring was supplied by GSS Australia. The detailed temporary design of the shafts was supplied to the client as part of the scope of the project.

A closed face slurry shield microtunnelling boring machine (MTBM) was used for the installation, with minimal overcut to the OD of the pipe. The four crossings under the motorway formed a critical component of the project. Ongoing settlement monitoring on all crossings was undertaken, with minimal settlement reported.

In addition, safety, quality and environmental management plans specific to the project were developed and implemented by D.J. Mac Cormick.

EQUIPPED FOR TRENCHLESS INSTALLATION

D.J. Mac Cormick has a fleet of Herrenknecht and Iseki MTBMs suitable for



pipeline installation from 150 to 3,000 mm in diameter. The MTBMs are remotely controlled from the surface and are laser guided and steerable making them perfect for high accuracy grade requirements.

The company is also equipped with various cutting wheels suited for soft ground, mixed and rock geology. D.J. Mac Cormick has been executing microtunnelling projects since 1995 across Australia, as well as internationally in the Middle East. T



A: D.J. Mac Cormick's MTBM being lowered into the launch shaft.

B: The MTBM pipe jacking the 1,800 OD pipe.

ABOUT D.J. MAC CORMICK CONTRACTORS

D.J. Mac Cormick Contractors is a leading microtunnelling and infrastructure construction company. Its specialist team of personnel have more than 40 year's combined experience, with a reputation for excellent service.

For more information visit www.djmaccormickcontractors.com.au