Project - Trenchless Technology





Lot 500/501 Hay Street Sewer Extension

Client:

Dradgin Property

Location:

Subiaco WA

Construction Period:

Jan 15 – Jun 15

Project overview

DM Civil was awarded the project by consulting firm Airey Taylor Consulting Engineers. It has been in the development and planning phase for three years. DM Civil was tasked with the construction of the sewer for the new landmark development, 500/501 Hay Street, Subiaco. This building, which housed the old ACE Cinemas, was to be replaced with a modern tower re-development.

DM Civil was engaged for the installation of 135 metres of DN225 main outfall sewer from the building using trenchless techniques. A guided pilot boring machine was used for the direct installation of the PVC sewer pipework past a complex network of existing services. The large number of services in the roads and verges required due care when open excavating, prior to tunneling, to check that as-constructed levels given on drawings were correct and there were no clashes with design levels.

The ii-Net building was located directly adjacent to the work site and had a large number of critical optic fibre cables of national importance. The proximity of this facility and strategic communications role increased the degree of difficulty for the project.

The crew had to contend with a large number of power cables, drains, gas mains and optic fibre lines in addition to congested vehicle and pedestrian traffic through this business centre.

Significant achievements and benefits

The project had the involvement of architects and builders. The management team from DM Civil needed to adapt to a different mode of operation with a large number of stakeholders who were focused on their own areas of responsibility. The hierarchy of management above DM Civil was a challenge to effective communication.

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The DM Civil team approached the project with enthusiasm despite the numerous physical and stakeholder related challenges it posed. A number of hurdles involving service clashes and traffic management on a congested work site made this project unique. Excavation and other works activities had to remain within a confined area with the smallest possible footprint. Peak hour required a further reduction particularly with pedestrian traffic moving to and from public transport and at lunch hour.

The works area has a high quality finish in line with its central city position. The construction documents contained reinstatement standards to the existing or better condition. The reinstatement was to City of Subiaco specification and the works were closely inspected during placement and at completion. The architect and builder were also stakeholders in the standard of reinstatement and provided an additional level of scrutiny to the finished product.

The project was unique with its position being inner city, with the number of stakeholders including architects and builders, with the concurrent building demolition works and with the number of services to be negotiated. In old areas such as Subiaco, where services have been installed from prior to the last century, there is also the challenge of unmapped services, old underlying pavements and tramline bases.

With a multitude of unmapped service discoveries, design clashes and work space restrictions due to concurrent activities, DM Civil was able to complete the work under contract to design and specification within programme and budget to the Client's satisfaction.

Contact DM Civil to discuss your trenchless technology projects.

GUARANTEED PERFORMANCE

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