M6 STAGE 1 – 33KV PERMANENT POWER

CLIENT: CPB / GHELLA / UGL JV
LOCATION: CANTERBURY – ARNCLIFFE NSW
DURATION: 1 YEAR
VALUE OF ENGAGEMENT: $30 MILLION

The M6 Stage 1 project involves the design and construction of the initial segment of the M6 motorway, running from the M8 motorway (formerly known as the New M5 Motorway) at Arncliffe to President Avenue in Kogarah.

This project encompasses all activities related to the design, construction, and completion of twin main carriageway tunnels, as well as the construction of on/off ramps at Kogarah and stubs for M6 Stage 2.

The M6 Stage 1 – Permanent Power Supply project includes the installation, testing, and commissioning of the permanent power supply required for the main project. Specifically, this involves the installation of 33kV power and communications infrastructure between the Canterbury substation and the new zone substation on West Botany Street.

Ferrycarrig was contracted by CPB Contractors, Ghella and UGL Joint Venture to complete the construction of permanent power supply for the M6 Stage 1 project. This involved a comprehensive scope of activities to complete the project spanning across 8 kilometres of Bayside and Canterbury-Bankstown Council areas. The scope comprised of clearing, potholing, excavation, duct installation, directional drilling, micro tunneling, utility relocations, and pavement restoration.

Below is an overview of the main physical works which make up the project scope:

- 6.5km of conventional trenching through TfNSW and Council roadways
- 450m of Horizontal Directional Drilling under creeks, railways, golf courses and Transgrid assets
- 2 large thrust bores under railways and Sydney Water open channels
- Installation of over 13km of 33kV Cables
- Jointing and terminations at 14 locations along the route
- Permanent restoration to Council and TfNSW specifications

There were several key challenges to the project. The works interfaced frequently with the local community and property owners, so special considerations needed to be taken to minimize the disruption and risk that the works presented. Examples of this included programming most noisy works in residential areas during the day and in commercial areas at night. The works involved boring under creeks, railways, and open channels in waterlogged ground. This required extensive pre-planning. Traffic management was a major element of the scope of works, and Ferrycarrig's internal traffic team played a crucial role in minimizing impact and disruption to the local community.

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> THE SCOPE COMPRISED OF CLEARING, POTHOLING, EXCAVATION, DUCT INSTALLATION, DIRECTIONAL DRILLING, MICRO TUNNELING, UTILITY RELOCATIONS, AND PAVEMENT RESTORATION.