



Bidwill CONSAC Replacement Packages

OIL/GAS | SEWER | STORMWATER | **POWER** | WATER | TELCO

PROJECT OVERVIEW

Concentric neutral solid aluminium conductor (CONSAC) cables are underground power cables that are generally direct buried and are known to be highly susceptible to damage from general wear and corrosion as well as excavation incidents. The use of these cables was commonplace in the 1970s and 1980s, however, new and improved technologies have improved electrical supply standards and delivery. To combat the increasing risks in maintaining these cables, UEA was awarded five packages of work in Western Sydney to upgrade and replace the existing Low Voltage CONSAC cables for the local electrical authority.



LOCATION

Bidwill NSW



CLIENT

Electrical Utility Supplier



PIPE

140mm & 63mm PE



GEOLOGY

Clay, shale & rock



LENGTH

3892m Drilling
1052m Trenching



TECHNIQUE

HDD & Trenching

SCOPE OF WORKS

The scope of works for the five awarded stages under the contract included:

- all service locating
- excavation of open points
- supply of pipe and conduit
- installation via horizontal directional drilling
- trenching and auger boring
- provision of traffic control
- proving of newly installed and existing utility pipe
- survey and works as executed drawings.

A total of 22.8 kilometres of HDPE pipe and PVC conduit was installed across the five packages via approximately four kilometres of drilling and one kilometre of trenching. With service locating being included



in the contract scope, and areas of high density existing utilities falling within the zone of works, UEA worked closely with the client to alter and redesign areas which could not accommodate further utility expansion. At peak site capacity, UEA mobilised three DitchWitch All Terrain drill crews along with five civils crews in order to ensure a timely completion of the given packages.

COVID-19

The COVID-19 pandemic reached Australia during the progression of this project. At the time very little was known about the virus and its nature; government recommendations were still being developed and regularly changed and work on the project was at risk of ceasing if state or nation-wide lockdowns were imposed. UEA closely monitored the situation and followed all restrictions and regulations in order to keep progress as unaffected as possible. With all works as part of this package being street works, crews were at potential risk of community transmissions of the virus, however isolating crew members from the community and potential community transmission was unrealistic. To combat this, all crews were kept to their minimum possible operating numbers, sanitation stations were introduced into all crews and movements between crews was restricted to reduce the possibility of individual infection and subsequent crew-crew and company-wide transmission. Team member safety has always been UEA's top priority and through the hard work and adaptability of the entire UEA family, all members and their families remained COVID-19 free throughout the pandemic.

CHALLENGES

- Locating adequate room within allocated alignments for new services
- Maintaining alignments around street corners and contours
- Providing uninterrupted pedestrian access for locals
- Keeping progress on schedule throughout extreme weather events
- Keeping crews fully operational during the COVID-19 pandemic
- Regular mobilisation and demobilisation activities to prevent vandalism
- Finding adequate pipe stringing space around the busy Western Sydney streets

COMPLETION

UEA successfully delivered the project on time despite the challenges faced. UEA would like to thank the client, all team members and contractors for their dedication, assistance and understanding throughout the project and COVID-19 pandemic.