

NORTH WEST SYDNEY ASSET RELOCATION

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

PROJECT OVERVIEW

UEA was contracted to install various underground utility services and provide a turnkey package around the newly constructed Cudgegong Train Station.



LOCATION

Cudgegong Road, Schofields NSW



CLIENT

On behalf of Sydney Water



PIPE

DICL, MSCL, PVC, PE



GEOLOGY

Clay & shale



LENGTH

~3,300 linear metres



TECHNIQUE

Conventional open cut excavation, HDD, GBM thrust boring

SCOPE OF WORKS

Potable Water:

- Approximately 1500 metres open cut and lay methodology
- The pipe sizes ranged from DN200-250 DICL with concrete encased MSCL used on road crossings
- Five connections to existing mains along Tallawong Road, Schofields Road and within the Cudgegong Train Station Precinct

Recycled Water:

- 1300 metres open cut and lay of DN150-200 PVC pipe within a dual trench alongside the potable water line, including six connections to existing mains.
- 25 metre laser-guided GBM thrust bore across Tallawong Road, which involved the installation of a DN450 steel enveloper pipe and a DN200 PVC carrier pipe
- 80 metre long OD250 bore using horizontal directional drilling (HDD) methodology in PE pipe across Schofields Road

Waste Water (Sewer):

- Approximately 300 metres open cut and lay

- 100 metres laser guided GBM thrust bore installing a DN650 steel enveloper case for a DN300 UPVC sewer line
- Eight maintenance pits were constructed in total, including two maintenance shafts and six DN1200 manholes (one being 8.4 metres deep)

CHALLENGES

- Open cut excavation and trenching in zones of hard shale
- Thrust boring completed under creek crossing in extremely weak siltstone, with a major emphasis on reducing environmental impacts to flora and fauna
- Detailed sewer cutover procedure connecting to a live DN750 sewer main
- Scheduling works within a fast paced, large scale infrastructure project with numerous work fronts

COMPLETION

The project highlighted the benefit of engaging a multi-disciplined utility contractor that was able to deliver all facets of the scope in house and to a high standard. The project was delivered on time and without any major HSEQ issues.