

ROUSE HILL STAGE 3 GAS MAIN HDD

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

PROJECT OVERVIEW

UEA successfully completed the HDD scope required as part of the Rouse Hill stage 3 secondary gas main extension project. The 200mm (219mm OD) FBE Coated Steel Gas Main was installed directly into the 350mm borehole, encased in bedrock at greater than 8.5 metres below the pavement with the void space filled with bentonite slurry as grout.



LOCATION

Rouse Hill NSW



CLIENT

ZINFRA



PIPE

200mm (219mm OD) FBE coated steel gas main



GEOLOGY

Clay & rock



LENGTH

1,438 metres



TECHNIQUE

HDD

SCOPE OF WORKS

Using two Vermeer D100 HDD rigs, UEA completed three separate underbores: Old Hawkesbury Road at Brennan Dam Road (540 metres), Old Hawkesbury Road at No. 338 (298 metres), and Chapman Road/Bandon Road at Windsor Road (600 metres).

CHALLENGES

Taking into consideration the tight project schedule, UEA managed to successfully complete all three underbores while working through constant wet weather and changing ground conditions. Due to the unexpected soft clay ground conditions of the first two underbores, UEA had the flexibility to redesign the underbores during drilling to minimise any downtime. UEA was also able to employ the use of a second HDD rig and a variety of associated tooling to overcome the difficult ground conditions. The longest and final underbore was in rock ground conditions, under and alongside heavy trafficable roadways. This required the steel main to be welded in two 300 metre strings – ready for the tie in weld – completed as part of the pullback process. Working with both the client and with Council, UEA piloted and reamed the underbore during standard working hours, while the pipe pull took place at night with a road closure and traffic diversions in place. UEA was able to further assist the project by using UEA's own pipe rollers and highly skilled HDD operatives to minimise the risk of the pipe damaged during pipe pull.

COMPLETION

All works were completed on time and within the required project specifications. The client was extremely happy with UEA's delivery and engaged them for further works.