

BRIGHTMORE PARK HDD WET WEATHER OVERFLOW ABATEMENT

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

PROJECT OVERVIEW

Primarily targeted at swimming sites, the Wet Weather Overflow Abatement Program provided benefits to the environment and human health and was part of Sydney Water’s long-term SewerFix program of sewerage system improvements.



LOCATION

Brightmore Park,
Neutral Bay NSW



CLIENT

Sydney Water
SewerFix Alliance



PIPE

500mm SDR
11 polyethylene



GEOLOGY

Sydney sandstone



LENGTH

1,403 metres



TECHNIQUE

HDD

DESIGN

It was imperative that the bore was able to take all the flow coming from the pumping station, approximately 300 l/s. If there was any backing up within the pipe, the additional head would act on the pumps and the facility would not be able to meet its design criteria. Because of this, an average grade of 2.7% was required with 1% constant positive grade achieved over the flat section and 4.74% achieved over the steeper section.

CONSTRUCTION

The pilot bore was a complete success using the Paratrak System. Due to the accuracy of the drilling, the bore can now take more than the design flow rate, providing Sydney Water with an asset with room for future expansion beyond the design requirements. As the drill site was near residents, considerable effort was made to reduce noise impact, including the installation of sound attenuation around plant and equipment, the use of electric pumps and limited working hours and days in order to successfully undertake the project.

Information gained on the pilot bore was used to develop tooling with the decision made to forward ream straight to final borehole size of 24 inches. This proved successful and removed the need for an additional ream and a potential return line.



Due to the lack of stringing room at the exit point, the new pipe was pre-welded into 120 metre lengths. As the pipe was installed a butt fusion joint was completed every 120 metres with the client's permission to leave the beads in-situ.

COMPLETION

At the time of construction, an HDD installation with these tolerance requirements was unique. Excellent pre-planning and teamwork was essential in order for the client to understand the parameters of the technology. UEA and the Wet Weather Alliance won the 2010 ASTT New Project of the Year award in recognition of the successful completion.