

GN EPPING POLY HORIZON

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

LOCATION	Cambridge Street, Epping NSW	
CLIENT	Ganellen/Sydney Water	
PIPE	DN300 uPVC RRJ DWV	
GEOLOGY	Sydney sandstone	
LENGTH	602 linear metres	
TECHNIQUE	Microtunnelling / open cut excavation	

SCOPE OF WORKS

This project was the lead in sewer works for the new GN Epping Poly Horizon high rise development, in addition to local residential dwellings along Cambridge Street in Epping NSW.

UEA was tasked with providing a turnkey package to both Sydney Water and Ganellen for the management and installation of the lead in gravity sewer main works for the development. The works consisted of the excavation of 442 linear metres of an open cut excavated trench with ground conditions, consisting of Sydney sandstone up to depths of five metres along a densely populated and highly trafficable residential area. Works also included launch and receival shafts, where 160 linear metres of free bore tunnels were completed utilising microtunnelling technology under areas of high environmental importance. The product pipe used onsite was a DN300 uPVC RRJ DWV pipe, both within trenched and tunnelled areas. Multiple maintenance shafts, as well as manhole structures were constructed at given points along the sewer alignment as required.

DESIGN & CONSTRUCTION

Design was provided by Cardno for Sydney Water and GN residential, and was executed on site by UEA. Any design RFIs and design changes met during construction were captured and worked through favourably to achieve suitable end goals. All construction complied with Sydney Water's "WSA 02-2002-Sewerage code of Australia_V4.0" and also with Sydney Water's "Technical Specification for Leak Tight Sewer Systems".

CHALLENGES

- Densely populated residential area with a highly trafficable given design sewer install alignment.
- Open cut vertical excavation & trenching in hard Sydney sandstone to be achieved.
- Microtunnelling to be completed under live services within roadway & under areas of environmental significance which contained protected tree's, flora and fauna.
- An area of high environmental importance with nearby waterway's near design sewer install alignment.
- Existing underground and overhead utility services encountered with the design sewer install alignment.
- Detailed sewer cutover procedure when making the sewer main "live".

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