

PIPE JACKING CASE STUDY

Dublin Bay Project 5.1b



www.pipejacking.org

PROJECT	Dublin Bay Project 5.1b
CLIENT	Fingal County Council
CONTRACTOR	Terra Solutions Limited/SIAC JV
TUNNELLING MACHINE	Herrenknecht AVN 600 & 1000
VALUE	€2.9 million



PROJECT OVERVIEW

The Dublin Bay project was an integrated scheme to provide for the collection and treatment of wastewater from the entire Dublin City urban drainage catchments. The objective was to collect the balance of wastewater flows from the North Dublin catchments and return them to a pumping station for processing, therefore eliminating the discharge of raw sewage.

DESCRIPTION OF WORKS

Fifteen smoothbore caisson shafts in diameters of 2.4m to 4.5m as launch and reception pits were constructed together with 1.21 kilometres of tunnelled gravity sewers. Installation was using Herrenknecht AVN600 and AVN1000 microtunnelling machines. 490m of 600mm microtunnelling were installed at various depths ranging from 5m to 7m and 720m of 1000mm microtunnelling installed at various depths from 8m to 5m depth.

As the chosen sewer route ran directly beneath the Howth Road, Sutton Golf Course and residential gardens a number of preventative measures such as dust and vibration monitoring were put in place. Despite varying ground conditions the pipe jacking works were completed three months ahead of schedule.

CO₂ SAVINGS

CO₂ savings of the combined pipe jacking element compared to open cut construction were over 60% and for the 600mm diameter drive 75%.
Source: pipejackingco2calculator.com

FURTHER INFORMATION: www.terrasolutions.co.uk

