

PIPE JACKING CASE STUDY

Skibbereen Sewerage Scheme



www.pipejacking.org

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| PROJECT | Skibbereen Sewerage Scheme |
| CLIENT | Cork County Council |
| CONTRACTOR | Ward & Burke Construction Limited |
| TUNNELLING MACHINE | Herrenknecht AVN 600 |
| VALUE | €14,962,000 |



PROJECT OVERVIEW

The Skibbereen sewage scheme comprised the installation of 14 kilometres of storm, foul and combined sewers, two kilometres of rising main and 332 manholes. In addition to the construction of a main foul and storm pumping station, the scheme also included a storm holding tank, a submersible foul pumping station, and three further outlying submersible pumping stations.

DESCRIPTION OF WORKS

The pipe jacking element of the project faced particular challenges as Skibbereen is constructed on an encrusted/consolidated layer of silt 1.5 metres deep overlaying a weaker layer of silt up to 40 metres deep. The area is adjacent to the River Llen which is tidal. Ground conditions required extensive pre-grouting using varying mixes of bentonite/cement.

1200 metres of microtunnelling in the range 600 – 1200 mm was installed including a curved 230 metre pipe jack. Particular properties were underpinned in advance of pipeline construction using micro-pipes cast integrally with existing foundations.

CO₂ SAVINGS

CO₂ savings of the pipe jacking element compared to open cut construction under roads and greenfield locations, which represented around half of the pipe jacking, were 43% for the 900mm and 600mm diameter drives.

Source: pipejackingco2calculator.com

FURTHER INFORMATION: www.wardandburke.com

