

# PIPE JACKING CASE STUDY

## Market Street, Downpatrick



[www.pipejacking.org](http://www.pipejacking.org)

|                    |                            |
|--------------------|----------------------------|
| PROJECT            | Market Street, Downpatrick |
| CLIENT             | Northern Ireland Water     |
| CONTRACTOR         | Terra Solutions Limited    |
| TUNNELLING MACHINE | Herrenknecht AVN 1000      |
| VALUE              | £550,000                   |



### PROJECT OVERVIEW

Infrastructure improvements to Downpatrick's sewerage system, in County Down, were carried out to reduce the likelihood of out of sewer flooding and restrict storm discharges to the local river environment in line with criteria set out by the Northern Ireland Environment Agency. The proposed infrastructure improvements involved the installation of deep sewers along existing roads with associated traffic and pedestrian restrictions.

### DESCRIPTION OF WORKS

Terra Solutions, working on behalf of BSG Civil Engineering carried out the installation of 270m of deep sewers through the main commercial and tourist areas of Downpatrick using a Herrenknecht AVN1000 tunnel boring machine. Five deep manhole shafts were constructed using smoothbore caissons to act as launch and reception shafts in internal diameters of between 2.4m and 5m. The ground conditions and abundance of legacy services in the area were important factors, but perhaps most importantly was the discovery of several significant archaeological sites which required careful management and liaison with the Northern Ireland Environment Agency.

### CO<sub>2</sub> SAVINGS

CO<sub>2</sub> savings of the pipe jacking element compared to open cut construction were over 60% for the 1000mm diameter drive. Source: [pipejackingco2calculator.com](http://pipejackingco2calculator.com)

FURTHER INFORMATION: [www.terrasolutions.co.uk](http://www.terrasolutions.co.uk)

