

PIPE JACKING CASE STUDY

The Greenway Sewer Diversion

PROJECT **The Greenway Sewer Diversion**

CLIENT **Thames Water (on behalf of HS2)**

CONTRACTOR **Barhale**

PIPE SUPPLIER **FP McCann**

TUNNELLING MACHINE **Iseki TCC 1200**

VALUE **£14m**



PROJECT OVERVIEW

Barhale was engaged by Thames Water to divert an existing sewer out of the path of HS2 in Ruislip, West London. The sewer is a large diameter, critical asset that was constructed in the 1930s, and experiences flows of up to 1200 litres per second. The project comprised three tunnel drives with launch and reception shafts interfacing with the large HS2 site and an area of allotments.

DESCRIPTION OF WORKS

The Greenway was awarded the British Construction Industry Award for Utility Project of the Year Award, with the judges praising the extensive collaboration between Thames Water and Barhale.

The project comprised:

- 3 no tunnel drives to install 580 m of 1200 mm diameter concrete pipe, using an Iseki tunnel boring machine (TBM).
- 2 no temporary works sheet piled cofferdams to facilitate the installation of MH1 and MH4 as well as the connection of the new tunnels to the existing sewers to enable the diversion. The cofferdam for MH1 was approximately 120 m² and dug to a depth of 10 m. The cofferdam for MH4 was approx. 180 m² and dug to a depth of 14 m.
- The two manholes within the cofferdams were installed from the bottom up.
- 2 no caisson jacked manholes 6m diameter depths varying from 8 to 12 m.

CO₂ SAVING

Carbon reduction actions conservatively achieved savings in excess of 1500 tonnes of CO₂ - equivalent to the annual amount removed from the atmosphere by more than 72,600 trees.

FURTHER INFORMATION: www.barhale.co.uk