

PIPE JACKING CASE STUDY

The Greenway Sewer Diversion



www.pipejacking.org

PROJECT **North London Heat and Power Project**

CLIENT **North London Waste Authority**

CONTRACTOR **Barhale**

PIPE SUPPLIER **FP McCann**

TUNNELLING MACHINE **Iseki TCC 1200**

VALUE **£4.9m**



PROJECT OVERVIEW

As part of the enabling works for the construction of an Energy Recovery Facility (ERF) at the EcoPark in North London by the North London Heat and Power Project (NLHPP), Barhale were contracted to divert the Thames Water-owned Chingford and Angel public sewers.

The new energy recovery facility at the Edmonton EcoPark will deal with up to 700,000 tonnes of waste from the seven north London boroughs per year. It will generate efficient, low carbon heat and power to serve 127,000 homes.

DESCRIPTION OF WORKS

To undertake the sewer diversions, Barhale constructed 3no new shafts, 2no new tunnels and 1 guided auger bore.

The two tunnels, 140 m and 210 m respectively, were pipe-jacked using closed pressurized face Iseki 1200 mm tunnel boring machines (TBMs). After completion of the second tunnel, a final connection was driven to an existing Thames Water manhole further south. This was a 45 m long, 450 mm diameter guided auger connection, which crossed approx. 5.0 m underneath the Pymmes Brook. A retractable cutter head within a 600 mm sleeve was used to complete the drive without the need for a reception shaft.

CO₂ SAVING

The team saved time, and significantly reduced carbon emission and water usage by simultaneously pipe-jacking the two tunnels. The solution saved between 50% and 60% on water usage (the equivalent of 50,000 l of water), and 9121 kg CO₂e (on 3,000 l of diesel).

FURTHER INFORMATION: www.barhale.co.uk

