

PIPE JACKING CASE STUDY

Gatwick Airport Pier 5



www.pipejacking.org

PROJECT	Gatwick Airport Pier 5
CLIENT	Gatwick Airport/Magee Group
CONTRACTOR	Terra Solutions Limited
PIPE SUPPLIER	Naylor Denlock
TUNNELLING MACHINE	300mm Terminator TBM
VALUE	£480,000



PROJECT OVERVIEW

As part of the reconfiguration of existing aircraft stands to accommodate larger aircraft, specifically Airbus 320's and 380's a new foul drainage network was required beneath the stands.

DESCRIPTION OF WORKS

In total 270 metres of 300mm diameter pipeline was installed over five tunnel spans.

The machine was launched from 2.4m diameter shafts, over 6 metres in depth. The ground conditions were more adverse than expected, and the tunnel head had to deal with n-values greater than 180 as well as unexpected ground water which, when mixed with the hard weald clay, created high rotational torque.

An unexpected strike with a disused fuel line, mid-way through a drive, led to carbon monoxide formation in the launch shaft. This necessitated City & Guilds Level 3 confined space training, and the operatives had to wear full breathing apparatus with direct airline in order to complete the drive.

FURTHER INFORMATION: www.terrasolutions.co.uk

