



“Installation of GSM-R cable and fibre cable to tunnel roof lining through the Heathrow Express tunnels”



Loading cable at Heathrow Portal

The project scope was to undertake the installation of a new GSM-R train communications cable and fibre cable to support the fibre network through the Heathrow tunnel fixed to the soffit of the tunnel lining.

Limited access and one way in / out made the project very challenging from a planning point of view. With no more than 2.5hrs access each night every single minute counted from accessing at the portal, travelling further into the tunnel each night and travelling back to the portal when works were complete. As the works got closer to the airport end, we were able to off track the Mewps within the tunnel and stable at a safe distance from the track.

All fixings were marked out, drilled and pull tested using road rail Mewps and the cables were installed using a combination of SRS rail mounted lorries and road rail excavator cranes. All plant had to be fitted with exhaust filters to reduce the emissions while working in the confines of a tunnel. This system provided a more comfortable and safe working environment for the staff without the need for fans and extraction units.

Following the installation of the cables and jointing/splicing activities they were tested with a 100% success rate. A key factor in the success of the project was meticulous planning on a daily basis and good communication with the client, Heathrow Express and the maintainer to manage the interface and ensure planned works could be completed.



Drilling into tunnel lining

The project was successfully handed back without any over running possessions which meant the Heathrow Express ran seamlessly every day despite the works ongoing each night.

INSTALLATION
SPLICING
TESTING
COMMISSIONING

MAY 2016 –
JAN 2017

VALUE
£1.6m

