



CASE STUDY 3: HEAVY RAIL

Project: HS1 (CTRL Phase 2 Radio Propagation)
Project value: £800,000
Client: Union Railways
Main Contractor: Thales Telecom Services
Dates: August 2006 – October 2007

Background:

The scope of the project was to install a Radio Propagation Network to all areas and rooms of the ventilation shafts across the CTRL – Section 2 network.

The project consists of 10 work sites:

- Kent Cut and Cover
- Kent Portal
- Essex Portal
- Ripple Lane
- Wayside
- Barrington Road
- Wood Grange
- Graham Road
- Corsica Street
- London West Portal

Scope of work:

The project required the installation and testing of the new radio propagation equipment. The work includes:

- 8 LSZH fibre cable installation
- Optical Distribution Shelf (ODF) SB2-8 Fibre cable termination box installation
- FIST closure
- Radiating cable and associated male and female run around the halls and rooms
- SCF coaxial cable to be used for tight bending radius
- LCF coaxial cable
- Repeater equipment, Global System for Mobile Communication (for the Railway) (GSM-R), RF filter box type 1, RF filter box type 4, splitter/combiner, London Fire Brigade (LFB) remote BSF 414
- Antenna coupler units
- 6 Db coupler units for interface between two risers
- 6 Db taper units for interface with antennae
- Containment cable tray, 50mm cones and cable clamps and equipment enclosures, all tray work to be bonded
- External and staircase antennae
- 3 core 10mm² SWA cable
- 40A 3pole isolation switch
- Stand-alone UPS/rectifier cabinet/repeater