



# Bristol Area Signalling Renewal & Enhancement

## Project

Bristol Area Signalling Renewal & Enhancement

## Client

Network Rail Asset

## Location

Bristol Area, England, UK

## Start Date

2010

## End Date

2015

## Duration

61 months

## Contract Value

£197m

## Services Provided

Signalling, train control and telecoms, electrification and power supply and programme management

## Background

Bristol Area Signalling Renewal & Enhancement (BASRE) had three key drivers:

- ▶ renewal of the asset due to its condition
- ▶ the need to provide an Alternating Current (AC)-immune and electrification-gauge-compliant signalling system, ahead of the running of the first electric passenger train to Bristol in December 2016
- ▶ to achieve capacity and journey time improvements on the Filton Bank as part of the Control Period 5 Infrastructure Improvement Programme.



## Scope of Works

### Resignalling:

- ▶ 703 SEUs (signalling equivalents) including mid-platform signals at Bristol Temple Meads to replace St Andrew's Crosses
- ▶ Bristol South resignalling was excluded as it is outside the geographical area of Overhead Line Equipment (OLE).

### Electrification:

- ▶ immunisation of signalling equipment
- ▶ replacement of signal structures if foul of OLE gauge or less than 15 years remaining life
- ▶ installation of fibre optic cable and RSC (Return Screening Conductor) in the OLE area.

### Enhancement:

- ▶ full scope of Filton Bank 4-track option including track, civils and signalling

- ▶ Intercity Express Programme (IEP) Depot Connection at Stoke Gifford including a new crossover
- ▶ Bristol Parkway capacity improvement was excluded from the scope at this stage.

## Key Project Outputs

### The project outputs were:

- ▶ an immunised and re-gauged signalling system ready for electrification by 2016
- ▶ a signalling system relocked and recontrolled under the '85 % compliance approach' which assumes existing signal positions remain largely unchanged
- ▶ the re-control of the Bristol Power Signal Box area (excluding Bristol South) signalling to Thames Valley Signalling Centre in line with the National Control Centre Strategy
- ▶ work to signal structures to make signals safely maintainable under OLE
- ▶ installation of the RSC in accordance with the Immunisation Strategy
- ▶ installation of a fibre-optic cable in the troughing for the IPC related to the OLE Supervisory Control and Data Acquisition system
- ▶ the four-tracking of Filton Bank (and associated signalling infrastructure) to facilitate capacity improvements between Dr Day's Junction and Filton.