



East London Line Phase 1

Project

East London Line Phase 1

Client

London Overground
(Transport for London)

Location

North and South London, UK

Start Date

2008

End Date

2010

Duration

28 months

Contract Value

£60m

Services Provided

Signalling, train control and telecoms, track/permanent way and feasibility design

Background

Opened in 1869 by the East London Railway Company, the line reused the Thames Tunnel, built by Marc and Isambard Kingdom Brunel, connecting New Cross Gate to Shoreditch. In 1933, it became part of the London Underground network.

In 2008 after 75 years the line was closed as part of the Transport for London (TfL) project to upgrade and extend the existing line. It was renamed the East London Line (ELL) and linked to the national rail network.

The project is a key driver to economic regeneration in south and east London. The upgrading and extension of the East London Line was key to the Olympics transportation strategy and to cater for a forecast increase in use from a previous 10.4 million passengers per year to 35.4 million passengers per year. Planning powers for extending to the north and south, running from Highbury & Islington to West Croydon, Crystal Palace and New Cross, crossing through 7 London boroughs, were granted in January 1997.

The East London Line Project (ELLP) was featured at the Institution of Civil Engineers' London Awards 2011 and won a number of awards, including the Greatest Contribution to London Award.



Scope of Works

This complex project consisted of the following scope of works:

- ▶ New Cross Gate: track and signalling for new connections to Network Rail infrastructure. Works included connection to the up and down slow lines, interfaces with ELL infrastructure and Siding reinstatement
- ▶ Crystal Palace: provision of two new terminal platforms, associated track/signalling, embankment reinstatement and disabled access to ELLP service platforms
- ▶ West Croydon: provision of new 10 car turn-back siding and associated signalling/track alterations, extension of up platform
- ▶ changes to signal panel at Three Bridges to cope with increased traffic levels
- ▶ South Croydon: provision of a turn-back crossover to provide turn-back capacity for trains displaced from West Croydon by new TfL traffic
- ▶ provision of railway telecoms and business systems services to the TfL controlled infrastructure off Network Rail's network. We supported TfL in the application for the Global System for Mobile Communications - Railway (GSM-R) for use in their network and interface with Network Rail Infrastructure
- ▶ demolition of the redundant railway bridge between Liverpool Street and Bethnal Green and associated Overhead Line Equipment(OLE) works to accommodate the new East London Line GE19 Bridge.

Key Project Outputs

The project allowed operation of a new eight trains per hour service from the National Rail network onto the East London Line, providing a new cross-London connection from South London to North East London. The works to enable this were:

- ▶ the remodelling, upgrade and replacement of track
- ▶ installation of new signalling equipment including 2 No. interlockings
- ▶ 1 bridge demolition
- ▶ power supply alterations
- ▶ new signalling control panel at Three Bridges Area Signalling Centre (ASC)
- ▶ 2 new platforms
- ▶ 1 platform extension.