

Case study title: Thameslink Peterborough Spital – Track Gradient Derogation
Month/year: June 2014

Business unit: Construction Services/Rail

Date and location: June 2014

In partnership with: Tata Steel Projects (designers) and Network Rail (Client)

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Outcome area(s): Protecting the Environment
Leading the way in our sector

Business benefits: Innovation driven by client / designer collaboration.
Reduced cost of construction

Background

As part of the Thameslink Programme to increase rail capacity through central London, Carillion is responsible for design and construction of a new train stabling facility at Peterborough Spital. At GRIP stages 4 and 5, the design for the sidings was subcontracted to Tata Steel Projects. The project involves the installation of new railway sidings and accommodation buildings.

Issue

A large amount of excavated material was expected to be produced by the construction of the new sidings and discussions were held between Carillion and the Tata Steel Projects Permanent Way and Environmental teams to try and obtain a solution. The outcome resulted in an approach to Network Rail in order to obtain derogation to increase the gradient of the track in the sidings greater than the maximum set in their standards.

Key Achievements:

- Collaborative working through the whole design team from subcontractors to client
- Obtaining a derogation from Network Rail to increase the track gradient within the sidings from 1:500 to 1:215 to match the inclination of the underlying limestone bedrock
- Leading to an estimated saving of excavated materials of 500m³ which is projected to save 17.5 tonnes of CO₂ emissions associated with transportation off site
- Saving an anticipated £10,000 on disposal costs.



Photo 1 – Excavation works at northern end of Peterborough sidings