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SwP 021/16

Watford Tunnel Location Case

Infrastructure Projects



Background

- On 26 October 2014 a train struck the door of a recently installed location case in Watford tunnel causing damage to the rolling stock & incurring significant train delays.
- The immediate cause was that the door had been left unsecured; however the subsequent investigation identified failings with the processes that led to the installation of this type of location case within the tunnel environment.

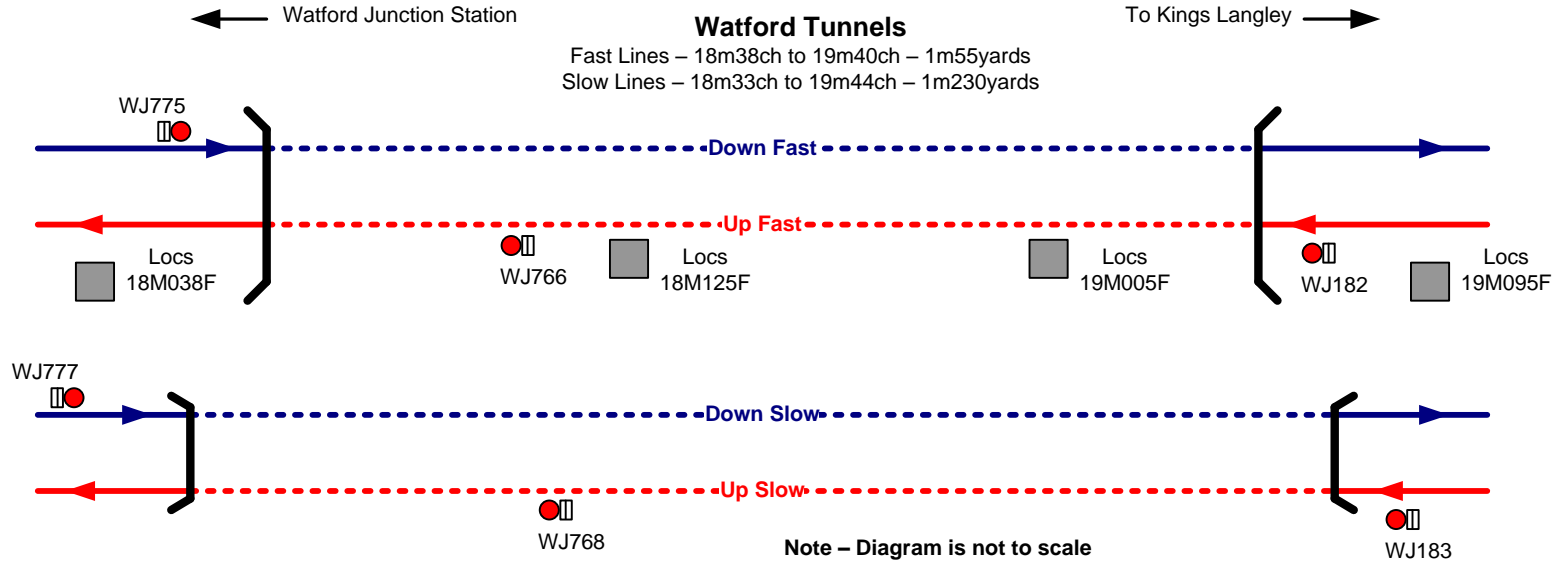


- During the development of the resignalling project it was determined that the Operational Requirements meant perpetuating the positioning of signals within both the Fast & Slow line tunnels at Watford.
- The Location Area Plan that was agreed at IDC (Inter-Disciplinary Check) showed the location cases positioned in the tunnel recesses.
- As the tunnel is Red Zone Prohibited it was assumed that the recesses were no longer required for safety purposes. Subsequently Network Rail Route determined they could not be used & the design had to be changed.

Site Configuration

Diagram of the tunnels at Watford, with approximate position of location cabinets

Case A of the three case suite of Location Cases 18M125F was involved in the incident



Underlying Causes of Incident

- The search to find a product approved location case that would fit within the tunnel profile, whilst maintaining the project programme, became the main focus of the project team.
- The Project (NR and contractor) had agreed that installation of location cases could proceed without the full design process having been completed i.e. without an AFC (Approved for Construction) design.
- The risks of this action were not adequately considered. Equally there were inadequate communications (formal or otherwise) between the Project team (programme management, engineering and construction) to confirm whether this was the most appropriate approach.

Action Required

- To maintain an accurate **Hazard Log / Decision Log** that satisfies the requirements of [NR/L2/OHS/0047](#) 'Application of **CDM** Regs' and [NR/L2/RSE/100/02](#) 'Application of **CSM** for Risk Evaluation & Assessment'. Decision logs and risk assessments need revisiting whenever any changes are made.
- To implement the correct process for **accepting the positioning of location cases** in accordance with Contract Requirements Technical Module 2-10 and [NR/GN/SIG/11821](#). This requires risk assessment of locations where staff accessing them are not in a position of safety.
- To undertake a review of all **product approval** documentation when selecting products to ensure all risks have been identified and that the product is fit for purpose.

Action Required and Lessons Learnt

- **ACTIONS FOR ALL PROJECT TEAMS & THEIR CONTRACTORS**
- To prevent reoccurrence there is a need to adequately manage the project risks through the application of the Approved For Construction (AFC) design, Inter-Disciplinary Checks (IDC), CSM & CDM risk management processes
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- If, by exception, projects need to install equipment that could affect the operational railway then the individual activity must be risk assessed first. This risk assessment must be agreed between the NR and Contractor's Project Managers, the DPE and CEM.

Further Information...

For any further details or information please contact:

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