NetworkRail

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Gospel Oak to Barking Line
Photo Credit: Sakhi Shaffi

Issue 137
21st May 2025

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SPEED PACE

Continuous Learning & Improvement Cascade

Capital Delivery Eastern Region

What's in this issue…

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Best Practice
Ground Compaction

Overview

Henry Boot Construction opted for ground compaction at their Buildings & Minor Enhancements Maintenance Delivery Unit (MDU) project in Barnetby, Lincolnshire. This method involves repeatedly applying external forces to compact soil to increase its physical properties such as strength and stability.

Sustainable Benefits in comparison to piling methodology:

- **Reduced embodied carbon** – utilising the site's existing soil significantly lowers the carbon footprint. Piling involves materials like steel and concrete, which have high embodied carbon due to their manufacturing processes.
- **Lower environmental impact** – piling often requires driving large piles deep into the ground, which can disturb habitats and generate significant noise pollution. Ground compaction is less invasive and disruptive to local ecosystems, minimising disturbances.
- **Reduced resource consumption** – this method reduces waste and resource consumption, as it doesn't involve extensive excavation and the removal of soil. It also helps maintain the natural soil structure, promoting long-term environmental health.
- **Versatility and adaptability** – ground compaction can be applied to a wide range of soil types and conditions, making it a versatile solution for various projects. This adaptability ensures that the environmental benefits can be realised across different sites and scenarios.

Andrew Greaves – Project Director, Henry Boot Construction

"Henry Boot Construction's decision to use ground compaction over piling reflects a commitment to sustainability and environmental stewardship. By reducing embodied carbon, minimising ecological disruption, and promoting sustainable practices, ground compaction offers a compelling foundation solution for eco-conscious construction projects."

Stabilisation Plant at Barnetby MDU

Greener Railway Strategy

Driving a Greener Future Together: Network Rail's Strategy to 2050

Network Rail has launched its updated Greener Railway Strategy, setting a clear direction for how we, as a collective workforce and supply chain, will help deliver a cleaner, more resilient, and inclusive railway by 2050. This strategy isn't just about environmental targets—it's about how we work together to embed sustainability into every aspect of our operations, projects, and partnerships.

What This Means for You

- Net Zero by Design: We're committed to achieving net zero carbon emissions across our operations. This includes expanding electrification, adopting low-carbon materials, and transitioning to zero-emission fleet vehicles. Supply chain partners will play a vital role in innovating and delivering sustainable solutions.
- Circular Economy in Action: From reusing track ballast to reducing construction waste, we're shifting towards a circular economy. Employees and contractors alike will be expected to prioritise reuse, recycling, and responsible sourcing.
- Climate Resilience: As climate risks grow, we're investing in infrastructure that can withstand extreme weather. This means designing and maintaining assets with resilience in mind—something that will require close collaboration across engineering, maintenance, and procurement teams.
- Protecting Nature: We're enhancing biodiversity and protecting natural habitats along our routes. Whether you're managing land, delivering projects, or sourcing materials, environmental stewardship is now a shared responsibility.
- Inclusive and Sustainable Culture: Sustainability is everyone's job. We're embedding it into our decision-making, training, and leadership. Expect more tools, guidance, and support to help you contribute meaningfully.

Shared Learning
Beaulieu Power Loss Incident

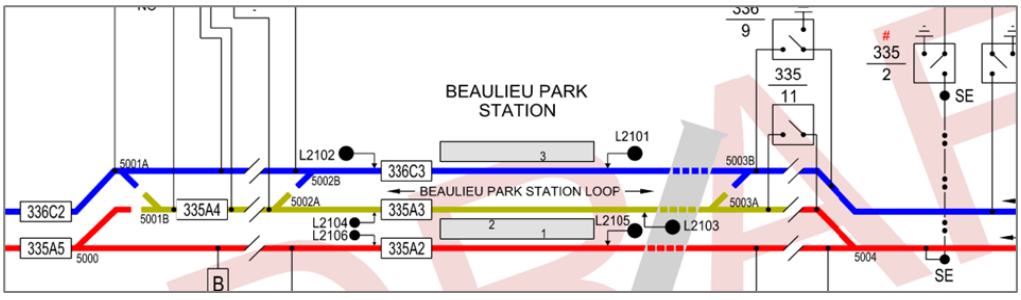
Description of Incident

On 30th January 2025 at 18:34hrs, J Murphy & Sons Ltd was notified that a train had come to a stop at Platform 2 of Beaulieu Park Station due to a loss of power (the train driver initially reported the issue to Route Control at 18:00hrs). The train came to a halt on the Loop Line at Platform 2, while services on the Up and Down Lines remained unaffected. Notably, no trippings were recorded on the Overhead Line, but the train experienced a loss of line light, preventing it from continuing.

Subsequent investigation traced the cause to scheduled works carried out on 26th January that were intended to verify switch functionality. However, a switch was left in the open position following the works leading to the subsequent power loss and train stoppage.

Key Investigation Findings

- **Lack of Review Opportunity and Briefing** – the subcontractor was not given adequate time to review work package plans, risk assessments, and control measures before beginning work..
- **Failure to Speak Up and Cancel the Works** - Operatives & supervisors failed to escalate concerns or halt the works despite risks & procedural gaps. A lack of assertive safety communication allowed works to proceed.
- **Lack of SCADA System Availability** – Inability to fully complete the scope of works (due to no SCADA being available) delayed the validation process The team planned to complete the ITPs upon returning to each switch on Week 1 which was an incorrect approach.
- **Failure to Complete Inspection and Test Plan (ITP)** – The team planned to complete ITPs when returning for the commissioning works later in the programme, meaning no real-time verification was done to confirm the switch position. Under CDM, the Principal Contractor has a duty to ensure that the necessary documentation (such as ITPs) is completed and verified. The necessary details about switch positioning were not effectively relayed, leading to misalignment in execution.



Photos: Track diagram & switch 335/11 involved in incident

Key Learning Points

- **Enhance Verification Procedures:** Implement a robust process to confirm switch positions post-maintenance.
- **Improve Documentation Compliance:** Mandate the completion of ITPs and other critical verification documents.
- **Strengthen Task Briefings:** Ensure comprehensive pre-work briefings, including risk assessments and procedural reviews.
- **Introduce Quality Assurance Checks:** Request independent verification of critical infrastructure post-maintenance.
- **Enhance Safety Communication:** Encourage staff to escalate concerns regarding procedural gaps or unclear instructions.

Recent Accidents and Incidents

Date of Incident	Portfolio	Project	Location	Type of Incident / Accident	Event Description
12/05/2025	Eastern Capital Delivery Non-Project	AAAAAA – NR ECD Personnel Investigations	Mill Road heading towards the A11	Road Traffic Accident	White van approached behind me at speed, overtaking me as the road crosses over the railway, hitting my car on the rear offside section and careered on to the verge on the other side of road nearly losing control. Damage to car but no injuries.
15/05/2025	Civils	151440 - Liverpool St Roof Design	Platform 3 London Liverpool Street Station	Machine, plant, equipment or tool	Whilst undertaking works to install the hanger scaffold onto the travelling deck a scaffold clip fell approx 15m from the scaffold onto the platform. No injuries or damage occurred as there was an exclusion zone in place

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- **Do you have something to share?**
- **Can others learn from your work?**
- **If you would like access to all out past issues, please use the below email to request access**

SCAN ME

Whether it be linked Health, Safety, Environment or Social Value
Please get in touch and email: **clic@networkrail.co.uk**

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