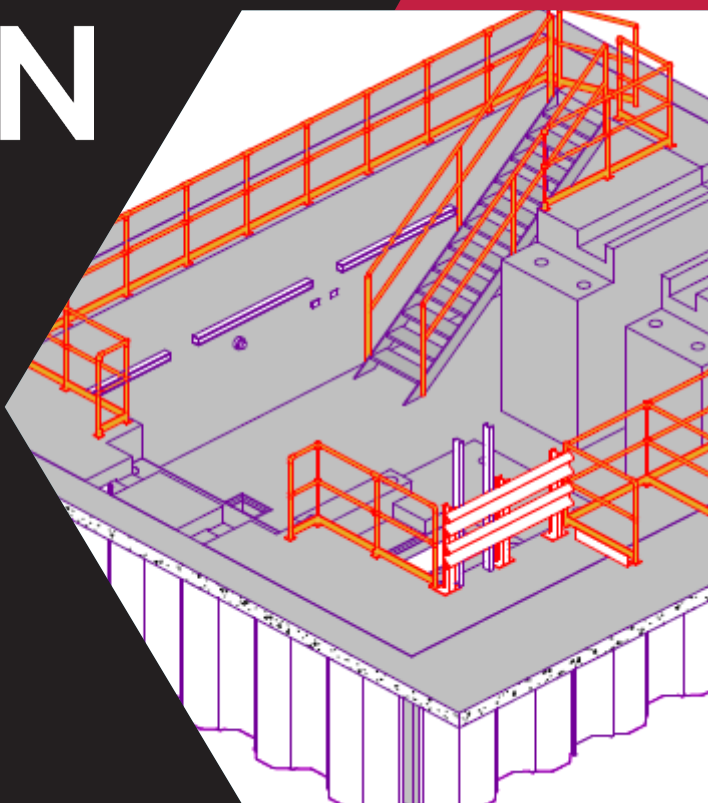


HEXAGON

Case Study

Canton Wheel Lathe Design & Design Assurance

Hexagon provided Principal Designer and Design Assurance services for the replacement of an under-floor wheel lathe at Canton Depot.



Customer
TFW/Cairn Cross

Completion Date
Aug 2026

Location
Canton

ABOUT US

HEXAGON is a design consultancy providing engineering expertise and services, specialising in rail depots and designs relating to train facility infrastructure works.

Working closely with developers, contractors, and other stakeholders to ensure that your project's structures are safe, stable, and structurally sound.

Hexagon's construction heritage ensures that they understand construction compliance and real-world situations to provide you with trusted, reliable and workable designs.

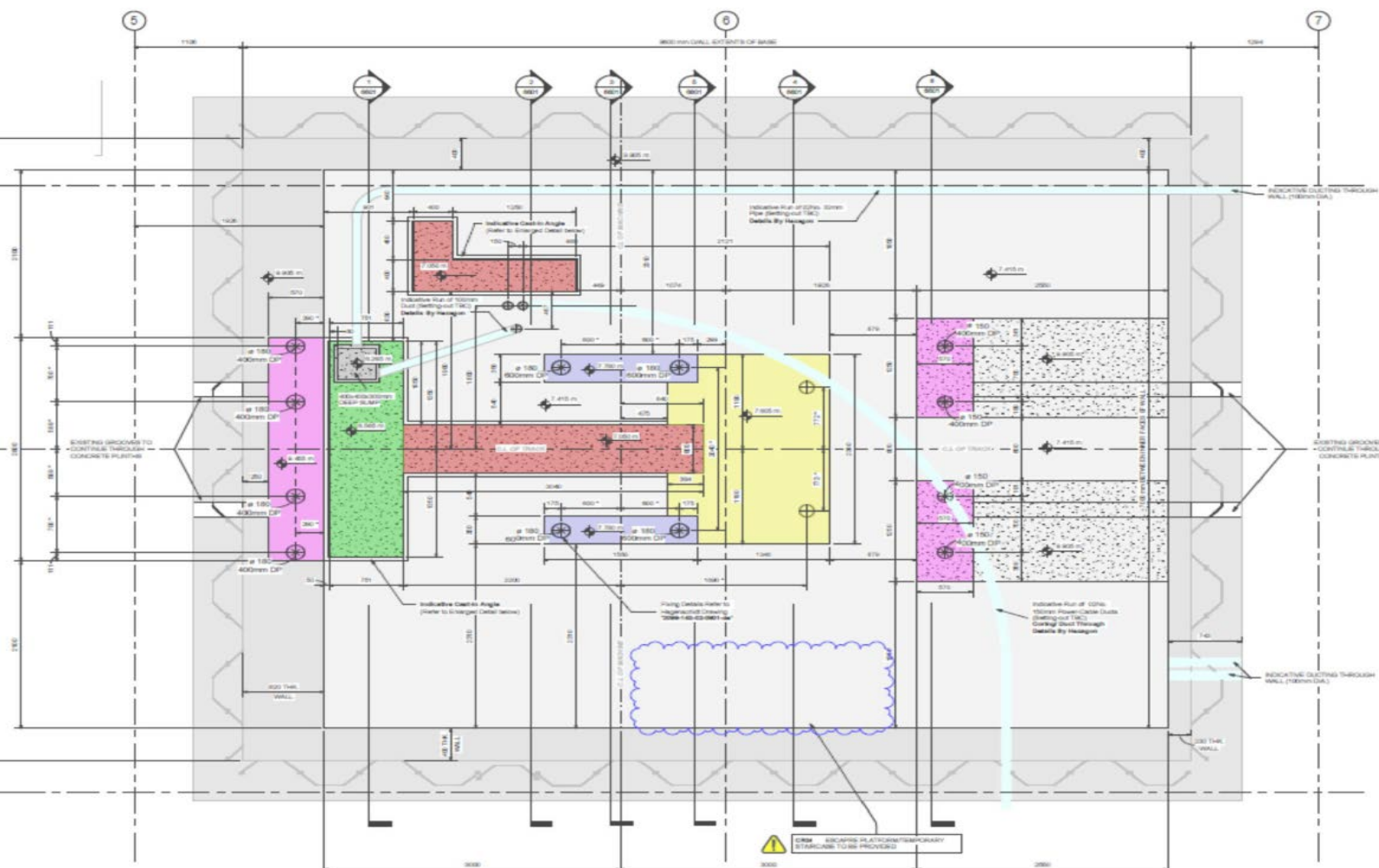
DESCRIPTION

Hexagon Design Consultants acted as Principal Designer for the replacement of the existing underfloor wheel lathe at Canton Depot, delivering comprehensive design assurance and multidisciplinary design coordination throughout the project lifecycle.

The scope included the management and assurance of all design submissions through the Common Data Environment (CDE), ensuring compliance with client, industry and project requirements. Working in close collaboration with the client, contractor and specialist design partners, Hexagon supported the successful delivery of a complex infrastructure project within a challenging programme.

In addition to design assurance activities, Hexagon provided construction stage support, assisting the project team throughout the installation and commissioning phases to help ensure the safe and efficient delivery of the works.

Working collaboratively with the client and design partners, the project was successfully delivered to an extremely challenging programme while ensuring compliance, safety, and design integration across all disciplines.



Outline & Detailed Design

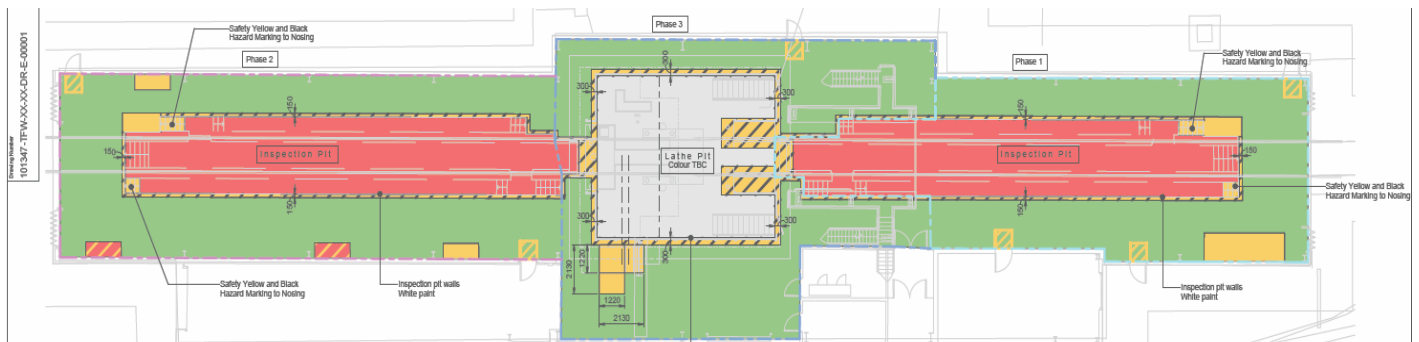
Calculation & Temp Works Design Package

Consultancy & Design Management Services

REQUIREMENTS

The project required design assurance, coordination and submission management across a range of engineering disciplines, including:

- Temporary Works Design Assurance – for the existing wheel lathe pit, comprising a sheet piled cofferdam with top bracing arrangements.
- Structural and Civil Engineering Design – of the new reinforced concrete wheel lathe pit.
- Ancillary Works Design – including new access steps, guardrails, painting specifications, operational signage and wheel lathe swarf skip positioning.
- Track Design Assurance – to ensure compatibility between the wheel lathe installation and the operational railway infrastructure.
- Mechanical and Electrical (M&E) Design Assurance – to support the integration of the replacement wheel lathe and associated systems.
- Management and assurance of all design submissions within the Common Data Environment (CDE).
- Ongoing construction phase support and stakeholder coordination – to facilitate successful project delivery within programme constraints.



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