



Lanks Hill Footbridge

With the development of the Metro Services and the electrification of the railway on the Core Valley Lines, public safety is a top priority in the project.

This meant that existing structures needed to be reassessed to ensure that they meet the safety compliance for the public in relation to the electrified Overhead Lines on the railway, which carries a fatal 25,000 volts.

The Lanks Hill footbridge at Danescourt station on the City Line was encroaching into the safe distance between the live wires and the public; therefore, it was imperative for it to be decommissioned and replaced with a new and safe footbridge over the railway.

PROJECT DETAILS

Client: Transport for Wales

Agent: Amey Infrastructure Wales

Contractors: Centregreat / Alun Griffiths

Designer: Amey Consulting

Project Cost c £800k

Date: August 2023

Contract: NEC4 Option A



The brand-new Lanks Hill footbridge was installed over the August bank holiday weekend in 2023 by the CVL project team, with Centregreat as the contractor and bridge installer.



amey consulting



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What is an Exemplar project?

An 'Exemplar' is defined as 'something worthy of being imitated or copied' and this is exactly what we continue to seek to achieve with this programme.

Exemplars are intended to offer good practical examples of how to achieve Best Value Sustainable Construction solutions. An Exemplar considers all aspects of sustainability, including economic, social and environmental, demonstrating that the scheme is well rounded and has incorporated best practice and collaboration.

Our approach to Exemplar has been updated to reflect the Wellbeing of Future Generations Act

and to provide greater value as well as inviting a programme approach to the process. It is anticipated that embarking on the Exemplar process will, in itself, lead to higher value being obtained from a project.

Case studies are normally prepared at 3 Key Stages; Design stage, Construction phase and Post-occupation, but we have recently added a Pre-design phase to our programme.

Addressing these phases ensures that lessons learnt can be demonstrated throughout the development of a project.

What was delivered

The project encompassed a series of crucial tasks aimed at enhancing safety compliance for passengers, particularly in response to OLE being energised.

The first phase involved the demolition of the old, non-compliant bridge to align with the requisite safety standards. Following this, the project team executed the meticulous process of derigging and rerigging Overhead Power lines, ensuring the integrity and safety of the power infrastructure.

The final key milestone was the installation of a new and compliant bridge, completing the comprehensive efforts to modernise and align the infrastructure with current safety standards for the benefit of passengers and the overall efficiency system.



Collaborative Working

The successful execution of the project was a result of collaborative efforts involving key stakeholders. Transport for Wales, as the client, played a pivotal role in steering the project towards its objectives.

Amey Consulting, as the designated designer, brought their expertise to the table, ensuring that the project met the necessary standards and specifications.

Amey Infrastructure Wales, serving as the managing agent, facilitated the coordination and smooth functioning of various project elements.

The bridge demolition contractor, Alun Griffiths, played a crucial role in the dismantling process. Centregreat, the SMIEF contractor, contributed to the structural and mechanical aspects of the project.

Additionally, collaboration with Cardiff Council, the landowners, was essential for obtaining necessary approvals and ensuring alignment with local regulations.

This collective engagement among these diverse entities underscored the importance of collaboration in achieving project success.



Health and Safety

Throughout the project, prioritising health and safety remained crucial, encompassing considerations from safety in design to ensuring the well-being of both the public and staff during construction.

A 'Close Call' system was implemented for design and construction, allowing the reporting of safety-related issues. All identified issues were prioritised and addressed promptly as needed.

To further enhance safety measure, the project team ensured that effective communication and coordination were established among all stakeholders participating in the bridge delivery process.

Key activities were recognised as being essential so as to promote alignment and awareness regarding both potential and existing hazards, fostering a collective understanding of safety considerations throughout the project.

In addition, collaboration with the Overhead Line Equipment (OLE) team was established to guarantee the safety of working conditions when wires were being derigged and rigged, both before and after the bridge installation.

This integration involved thorough coordination and communication to assess and certify that the overhead lines were secure, providing a safe environment for the workforce throughout the various stages of the bridge installation process.

Moreover, a High Voltage (HV) Supervisor was actively on-site throughout the execution of the tasks, particularly in the vicinity of the HV troughing route.

Their presence ensured oversight and management of high-voltage related activities, contributing to overall safety and compliance with protocol during works.



Key Challenges

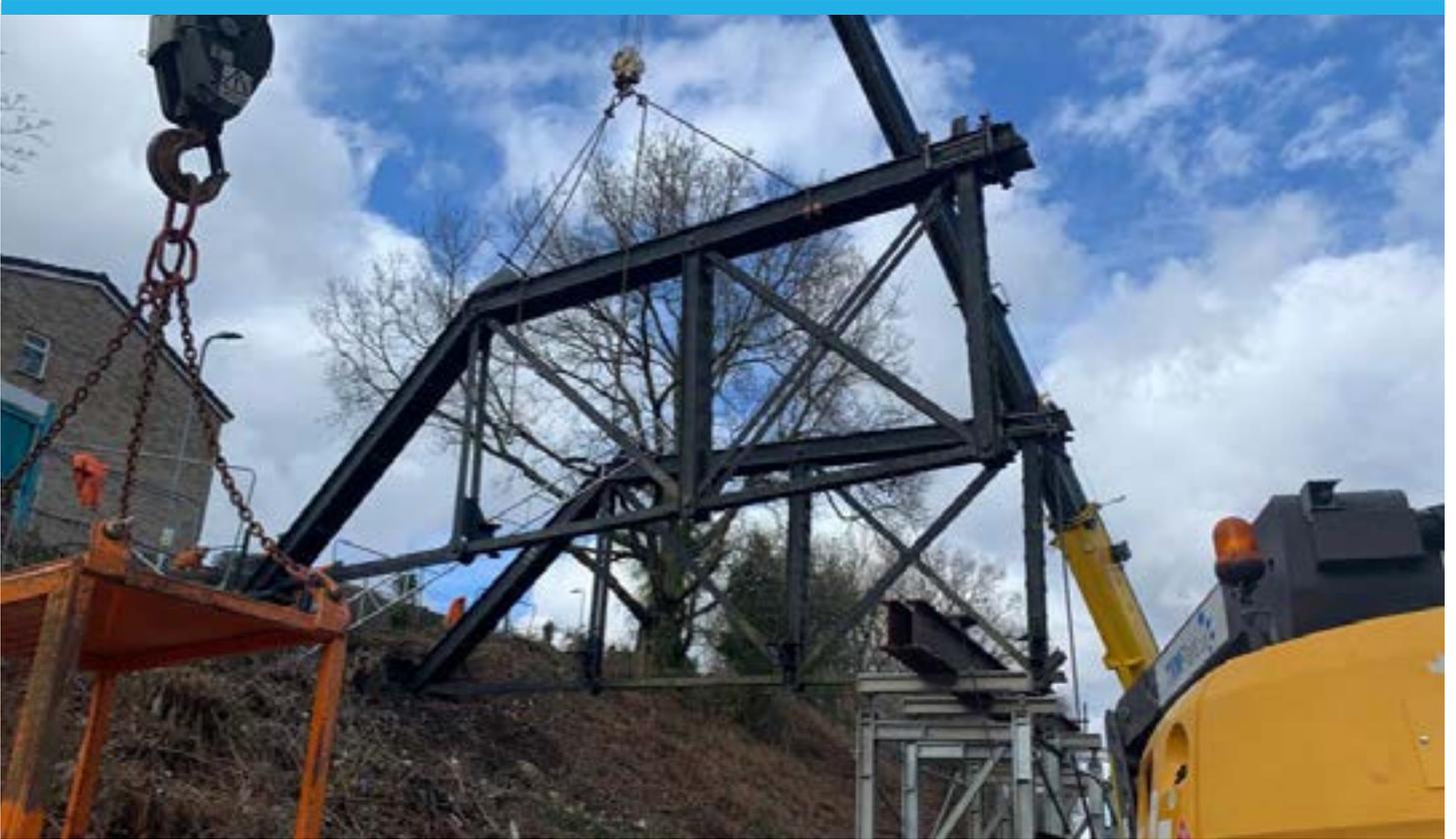
One of the primary challenges encountered during the project revolved around the intricate task of seamlessly integrating the diverse parties involved and aligning their efforts with the meticulously planned hour-by-hour programme.

This challenge encompassed the need to synchronize the activities and responsibilities of various stakeholders, including Transport for Wales, Amey Consulting, Amey Infrastructure Wales, Alun Griffiths (bridge demolition contractor), Centregreat (SMIEF contractor), and Cardiff Council (the landowners).

Achieving cohesion among these entities required strategic coordination, effective communication, and continuous collaboration to ensure that each party adhered to the precisely scheduled tasks outlined in the hour-by-hour programme.

Addressing this challenge demanded a comprehensive approach that emphasised clear communication channels, regular updates, and proactive problem-solving to maintain alignment and uphold the project's timeline. Despite the complexity, successful resolution of this challenge was essential, which ultimately led to the smooth execution of the project and the realisation of its overarching goals.





Community Engagement

To actively engage with and inform the community, Amey Infrastructure Wales, Transport for Wales, and Centregreat organised a series of informative drop-in sessions.

These sessions were designed to ensure that local residents and stakeholders were well-informed about the key dates and the specific areas that would be affected by the upcoming bridge installation works.

Through these engagement initiatives, community members had the opportunity to gain a comprehensive understanding of the project timeline, potential disruptions, and the overall scope of the construction activities.

The drop-in sessions provided a platform for the open dialogue, allowing community members to express concerns, ask questions, and receive direct, transparent communication from the project organisers.

This community engagement approach fostered a collaborative and inclusive environment, ensuring that the local community felt informed, involved, and supported throughout the bridge installation works.

Well-being of Future Generations Act

CEWales has been commissioned by the FG Commissioner, in conjunction with CLAW, to develop a Project Directory framework which guides clients through the various phases of project delivery in relation to the requirements of the Act.

Pilot projects are being trialled for schools with the intention of rolling it out to all buildings and civils projects. The Act will increase in prominence within our Exemplar process going forward.

TfW Exemplar Programme

CEWales has set up an Exemplar programme with TfW. A number of projects, at varying stages of development, are identified for inclusion in the programme each year.

In this fourth year there are five projects, the first three being delivered by AIW:

- **Lanks Hill footbridge**
Construction phase
- **Pentrebach-Merthyr passing loop**
Construction phase
- **Treherbert-Pontypridd OLE**
Construction phase
- **Cardiff Bus Station fit out**
Construction phase
- **Abertillery line**
Option selection phase