



## Barry Wrides 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 for 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.**

In addition, existing level crossings needed to be appraised in view of the increased frequency of train services planned under the new Metro programme, particularly south of Pontypridd. The 'Barry Wrides' footway level crossing, which was situated south of Llandaf Station, was assessed as such. The conclusion was that it had to be decommissioned and replaced with a new and safe footbridge over the railway.



The new 'Barry Wrides' footbridge which spans between Wingfield Road and Colwinstone Close, either side of the railway, offers safe access to and from the allotments. It also assists with safe access to link schools either side of the track.

The bridge was fabricated by Griffiths and AmcoGiffen were appointed under the Station Modifications and

## PROJECT DETAILS

**Client:** Transport for Wales

**Agent:** Amey Infrastructure Wales

**Contractor:** AmcoGiffen / Griffiths

**Designer:** Amey Consulting

**Project Value:** £1.5m

**Contract:** NEC3 Option C

Infrastructure Enhancements Framework (SMIEF) to carry out the installation and related works.

**The bridge was installed in June 2024 and, following the completion of other related works, opened in August 2024.**



## CONTACT

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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

There was an existing footway level crossing that required decommissioning prior to the provision of a safe way of crossing over the track. Once the crossing was closed in May 2023, a diversion route was put in place to allow the local residents and allotment holders to access each side of the railway.

The field area adjacent to the track on the south side at Colwinstone Close, was used as a compound area by the contractor AmcoGiffen during the construction phase. The area was fenced-off to allow local resident access whilst avoiding any interaction with the on-going works. Track-matting was installed throughout the compound to assist with deliveries and storage.

The new footbridge consists of a three-tier stairway to the south side (Allotment end), a span over the track, and, from the north end, there is a ramp to Wingfield Road.



The bridge was installed using a crane that was situated in the compound area, south of Wingfield Road / adjacent to the allotments.

The bridge was delivered to site and erected over four-night shifts. Drainage works were then installed to take water away from the bridge deck areas, thus avoiding any pooling over the bridge walkways.

Collaboration between Welsh Water and Amey Infrastructure Wales (AIW) was key to the successful drainage system being managed and dispersed safely into the approved watercourse.

## Collaborative Working

The successful execution of the project was a result of collaborative working involving key project team members. **Transport for Wales (TfW)**, as the client, played a pivotal role in steering the project towards its objectives.

**AIW**, serving as the managing agent, facilitated the coordination and smooth functioning of various project elements, such as the liaison with Welsh Water. AIW's design partner, **Amey Consulting**, brought their expertise to the table, ensuring that the project met the necessary standards and specifications.

The bridge fabricator, **Griffiths**, ensured that the bridge was fabricated accurately to the design, thus meeting key dates that aligned to possession and the installation programme of June'24.

The SMIEF contractor, **AmcoGiffen**, managed the structural installation and all other associated aspects of the project.

Additionally, collaboration between the project team and Cardiff Council and the Allotment society was essential for obtaining necessary approvals and ensuring alignment with local regulations.

**This collective engagement within the team and with wider stakeholders underscored the importance of collaboration in achieving project success.**

## Environment

The initial works to prepare the area required some tree felling, brush removal and excavations. Working in tandem with Cardiff Council, AIW enrolled the services of an Arboriculture, Environmental and Ecologist team. Identified Ground investigations were carried out along with Great Crested Newt and Ecological Impact Assessments. Further to these assessments a Soil Management Plan (SMP) and a Soil Resource Report (SRR) were required with a soil scientist in attendance to oversee all excavations.

The new footbridge is situated across a field on the south side where the environment and its habitats

have been preserved, with landscaping, including tree planting, cultivation and grass seeding. The bridge and new safeguarding palisade fencing have been finished off with a leaf green colour that blends in with the surrounding area.

Landscaping will be undertaken from November 2024 onwards. This includes new trees being planted and hedgerows replacing those that were removed at the start of the works.

Furthermore, a previous, existing pond area has been reinstated within the allotments area.

## 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, the project team ensured that effective communication and coordination were established among all those participating in the bridge delivery process. Key activities were recognised as being essential 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 planning/transformation team was established to guarantee the safety of the workforce throughout the various stages of the bridge installation process.

**Most of the works were conducted outside the railway environment. AmcoGiffen ensured that their works were managed so as to undertake 90% during the daytime, thus avoiding excessive noise for the local residents during the nighttime.**

## Key Challenges

The Key Challenges for the Barry Wrides footbridge project related to the constraints on track access and to the planning application process, with programme dates having to be moved to align with planning constraints and conditions.

The project team members, TfW, AIW and AmcoGiffen, collaborated to tackle these challenges and through extensive communications with Cardiff Council an innovative solution was arrived at.

This was based on a planning consent being put in place to deliver the works in stages, with a Soil Management Plan (SMP) and a Soil Resource Report (SRR) being required to support the construction of the first phase: the haul road and compound.

Hence, once consent was in place and dates had been set, achieving cohesion among the various team members 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 realised, which ultimately led to the smooth execution of the project as planned.

## Community Engagement

To actively engage with and inform the community, Tfw, AIW and AmcoGiffen organised a series of informative drop-in sessions from 2021 to Aug'24. Residents were also regularly updated via a newsletter being sent to their homes.

The drop-in 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, allotment owners and local Councillors, 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.

Hawthorn Primary School - site visits were carried out by the team in April '24, with rail safety briefings and presentations to the young school pupils, raising their awareness of the dangers inherent with overhead power lines and trespassing on railway land.

AmcoGiffen also engaged with local communities via their social value scheme:

- Llandaff North Community Centre: planters were installed, with painting, signage and flooring works being carried out.
- Llandaff Allotments Society: the allotments adjacent to the railway had to endure a long spell where they could not access their plots from the north side of the track. Therefore, a new haul road was installed throughout the allotment area; also, during the tree felling and de-vegetation works, the allotment owners were supplied with logs and wood chip.



## Historical interest

*In 1860 Bary Wride was the 'occupier' of an acre of land required for the widening of the Taff Vale Railway in the parish of Whitchurch. The crossing was likely named after him because the crossing was put in place for him to access the land that he occupied which was then bisected by the railway.*





## Lessons Learnt

The new bridges within the Core Valley Lines programme to date have varied in regard to their locations. Learning the history of the bridge is essential while having effective communications with the residents is key.

Understanding the history aids communications and relationships. An early understanding of whether the crossing is an approved public right of way is also essential.

The requirement to have a design in place for the new bridge prior to removing the old bridge or crossing; this can avoid long term access constraints and diversion routes being put in place.

There is a potential conflict for footbridges between catering for cyclists and for Persons with Reduced Mobility (PRM).

The provision of cycle ramps conflicts with PRM arrangements for braille and prismatic signs being installed along handrails, as the ramps would cause a tripping hazard for PRM users. This needs careful consideration early in the design.

## Well-Being of Future Generations Act

The Act requires public bodies in Wales to think about the long-term impact of their decisions, to work better with people, communities and each other, and to prevent persistent problems such as poverty, health inequalities and climate change.

The CVL Transformation programme and the subsequent introduction of the Metro will provide a major improvement to the public transport service, with significant benefits for the goals of the Act.

CEWales was commissioned by the Future Generations 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 were 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 annual programme.

In this fifth year (2024/25) of the programme there are five projects, with three being delivered by AIW.

The Barry Wrides Footbridge is the first completed case study for the year.