

Design & Access Statement - Hazlehurst Bridge

Application Type

This application is for Listed Building Consent covering the partial demolition and the proposed rebuilding of Hazlehurst Bridge No 37, which is a Grade II designated heritage asset.

Location

The bridge is one element in a flight of locks at Hazlehurst, east of the village of Endon in Staffordshire and provides access for farmers/residents to adjacent fields and long-term moorings over the Caldon Canal. Vehicular access can only be gained via a track off Leek Old Road (off A53) which is approx. 500m north of the bridge.

The bridge is also located in Caldon Canal Conservation Area.

Description of proposed development

The Listed Building Consent application concerns the partial demolition and rebuilding of a Grade II designated brick arch bridge.

The Canal & River Trust is very conscious of its role as a leading custodian of the country's industrial heritage assets. The Trust has a Mandatory Standard for heritage and aims to deliver conservation best practice, taking a long term and strategic view that assumes a presumption in favour of preserving waterway heritage.

As a leading custodian of a significant part of the country's industrial heritage, the Trust recognises the importance of providing both justification and evidence of a rigorous process relating to any harm to and/or loss of a heritage asset. In order to meet this self-imposed standard, a range of supporting documents have been prepared to support this application. They include:

Hazlehurst Bridge - Record of Reasoning for Partial Demolition

Hazlehurst Bridge - Heritage Impact Assessment

Hazlehurst Bridge - Options Brochure for Rebuild

Date of Preparation

March/April 2022

Applicant

Canal & River Trust

Application prepared by

Mark Somerfield BA (Hons), MSc
Heritage Advisor,
Canal & River Trust, West Midlands Region

Kate Langley BA (Hons), PGDip, MA, IHBC
Heritage Advisor,
Canal & River Trust, West Midlands Region

Context

On Sunday, 1st March 2020, the Canal & River Trust received a call from residents, concerned about the condition of Hazlehurst Bridge. Upon arrival on site, the condition of the bridge was a concern and with the resulting risk to public safety, Trust personnel, in conjunction with the police, closed off all access points to the bridge.

The first engineering inspection of the bridge was on Monday 2nd March. This inspection was undertaken by Robert Malpass, a Senior Engineer with the Canal & River Trust. Robert's initial assessment of the bridge was that it was unlikely to be recoverable and would possibly collapse on its own.

On Wednesday 4th March Sally Boddy – Regional Engineer visited the bridge to start an investigation into the cause of the failure. Sally as Regional Engineer would ultimately have to make the final decision as whether to demolish the bridge. Sally was also joined by Mark Durham, a Principal Engineer, and Peter Simpson, a Trust Senior Bridge Engineer, a specialist in brick arched bridges. All agreed that the mode and extent of failure within the bridge was such, that it was unstable and that it would not be practicable to stabilise and repair the bridge safely.

Following this assessment, a site meeting was held between representatives of Canal & River Trust and Staffordshire Moorlands District Council on the 4th of March where it was agreed that Bridge 37 had sustained catastrophic damage and it was deemed therefore that emergency works were required to take down dangerous parts of the structure due to fear of collapse.

Following a second meeting (on Tuesday 10th March) between Trust representatives, Staffordshire Moorlands District Council and the Trust's Main Contractor where the extent of the take down was agreed. The partial demolition was completed the following day (Wednesday 11th March), where much of the original building fabric was salvaged and stored appropriately.

A more detailed account of this assessment and the range of options that were considered before partial demolition was carried out is provided in the supporting document (Hazlehurst Bridge - Record of Reasoning for Partial Demolition).

Legislative Context

Planning (Listed Buildings and Conservation Areas) Act 1990

In the case of the partial demolition and proposed rebuilding of Bridge 37, the 1990 Planning (Listed Buildings and Conservation Areas) Act, the following sections are relevant:

Section 16 (2) makes it a statutory duty for a local planning authority, in considering whether to grant listed building consent for any works to a listed building, to; *'have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses.'*

Section 66 (1) sets out a similar duty for a local planning authority when considering whether to grant planning permission for development which affects a listed building or its setting.

Section 69 defines conservation areas as *'areas of special architectural or historic interest the character or appearance of which it is desirable to preserve or enhance'*.

Regard must therefore be given to both the desirability of preserving the fabric and character of the listed bridge, as well as the desirability of preserving its setting and the contribution it makes to the Conservation Area. Therefore, where this is not possible and a level of harm has been sustained, it follows that a justification is necessary.

National Planning Policy Framework

The National Planning Policy Framework (NPPF) 2019 provides the Government's National Planning Policy of the conservation of the historic environment, in respect of information requirements it sets out that:

Section 16 (189)

'In determining applications, local planning authorities should require an applicant to describe the significance of any assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance'

Section 16 (193)

'When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation (and the more important the asset, the greater the weight should be). This is irrespective of whether any potential harm amounts to substantial harm, total loss or less than substantial harm to its significance.'

Options to save the bridge were considered (see Hazlehurst Bridge – Record of Reasoning for Partial Demolition), but due to the risk of collapse and the fact that the bridge was still moving it was deemed to be unsafe to action any of the options which would have resulted in less harm to the significance of the asset but involved accessing the underside of the bridge (Options 2 and 3). Option 1, do nothing, was not viable. Option 4 was discounted because it was not logistically possible at that moment in time due to canal closures and the urgency of the situation – though this option would

still have involved a controlled take down. Option 5 was the only reasonable option left which could be executed safely, though this option was to have a high impact on the heritage significance of the bridge (which is discussed in the Hazlehurst Bridge – Heritage Impact Assessment).

Section 16 (194)

‘Any harm to, or loss of, the significance of a designated heritage asset (from its alteration or destruction, or from development within its setting), should require clear and convincing justification. Substantial harm to or loss of:

- a) grade II listed buildings, or grade II registered parks or gardens, should be exceptional;*
- b) assets of the highest significance, notably scheduled monuments, protected wreck sites, registered battlefields, grade I and II* listed buildings, grade I and II* registered parks and gardens, and World Heritage Sites, should be wholly exceptional.’*

Bridge 37 suffered extreme damage from the de-watering of the canal. The loss of the bridge is sadly unavoidable, and it cannot be conserved. This equates to **substantial harm** as set out above.

Section 16 (195)

Where a proposed development will lead to substantial harm to (or total loss of significance of) a designated heritage asset, local planning authorities should refuse consent, unless it can be demonstrated that the substantial harm or total loss is necessary to achieve substantial public benefits that outweigh that harm or loss, or all of the following apply:

- a) the nature of the heritage asset prevents all reasonable uses of the site; and*
- b) no viable use of the heritage asset itself can be found in the medium term through appropriate marketing that will enable its conservation; and*
- c) conservation by grant-funding or some form of not for profit, charitable or public ownership is demonstrably not possible; and*
- d) the harm or loss is outweighed by the benefit of bringing the site back into use.*

The justification for the loss of this designated heritage asset (Bridge 37) is that the damage which was sustained meant that the bridge was no longer fit for purpose, it was too dangerous to allow any form of access - neither pedestrian nor vehicle over the arch. Equally, it would have been too dangerous to allow boat traffic or towpath users under the bridge. Due to safety concerns and the likelihood of an uncontrolled collapse it meant that options to prop the bridge had to be discounted - the bridge was damaged beyond safe repair.

It is proposed that as the bridge has been partially demolished, the listed asset will be de-listed as much of the significance of the asset has been lost.

Heritage Impact

The sequence of events outlined above have had a very harmful, irreversible impact on the significance of the structure and the setting, impacting negatively on its heritage values.

The partial demolition of the bridge has created a gap in the landscape and altered the experience of the setting, which is most notable from Lock 12. The bridge was part of a complete canal scape of the nineteenth century, so the character and quality of this stretch of the Caldon Canal Conservation Area has been compromised.

Views along this stretch have been altered by the partial removal of the bridge and will change the experience for towpath users and boaters when travelling down or up the lock flight. The authenticity has been diminished and completeness of the stretch has been lost due to a significant change in what as a relatively unaltered stretch.

The remains do still have some historic value, dating from the late 1800s and it has not lost its association with John Rennie, but it is no longer a good example of his work and the conscious design has been lost, so too has the aesthetic value.

For a more detailed account of the significance of the asset and its setting and the overall heritage impact of the events described above see the supporting document (Hazlehurst Bridge – Heritage Impact Assessment) included in the application.

Design

As outlined above, the Canal & River Trust is very conscious of its role as a leading custodian of the country's industrial heritage assets. The Trust has a Mandatory Standard for heritage and aims to deliver conservation best practice, taking a long term and strategic view that assumes a presumption in favour of preserving waterway heritage.

As part of the partial demolition process, original building fabric (bricks and sandstone copers and string course) was adequately salvaged and stored to be used in the proposed rebuilding of the bridge.

Given the nature of the loss of this heritage asset, it was requested that Historic England (would provide support to both the Canal & River Trust and Staffordshire Moorlands District Council in considering any future options for rebuild or replacement. That support was provided by Julie Taylor at Historic England.

Philosophy

In principle, it was envisaged that the new bridge's appearance would be in the spirit of the former structure, matching its location, form, scale, and character. To this end, a measured laser survey was completed of the bridge before the partial demolition commenced. However, as the accompanying Heritage Impact Assessment states, it would ultimately not be the bridge that was designed and built by Rennie in the early 19th century, despite the best of intentions.



Artist's impression of Option 2 rebuild

The options for replacement/rebuild were thoroughly debated with two final options prepared for the consideration by all stakeholders (see Hazlehurst Bridge – Options Brochure for Rebuild). It was decided that Option 2 would be the most desirable route for rebuilding the bridge, as it was more favourably aligned with principle stated above, as well as fulfilling the Trust's aim to achieve long-term posterity for the structure and the flight of locks.

This option comprised of rebuilding a replacement bridge on the existing footprint, using as much of the original fabric as possible, as well as a construction technology comprising of matching facing brickwork and stone finish to the original bridge structure (see Hazlehurst Bridge – Options Brochure for Rebuild). The proposed building technology (concrete barrel etc.) will give the structure a much greater load capacity and ensure greater longevity for the asset.

Materials

Based on the choice of Option 2 as the desired route for rebuilding, the Trust engaged specialist brickmakers (Furness of Cumbria) to design and produce a 'matched' brick that could be used for facing the construction. Furness have extensive experience in producing 'matched' bricks for the heritage sector, with successful projects including previous canal bridge rebuilds, as well as buildings at the Black Country Museum in the West Midlands.

The new brick sample provided by Furness was signed off for use by Staffordshire Moorlands District Council (email confirmation from Gillian Bayliss to Kate Langley on 20/09/21). The size of the chosen brick is a direct match for existing at 250 x 120 x 80mm.

It is proposed that the salvaged bricks are to be used above the string course, at the parapet level, on both elevations. The salvaged sandstone string course and coping stones will also be reused as per the original Rennie design (see Hazlehurst Bridge – Options Brochure for Rebuild).

Whilst the Canal & River Trust can, at this stage, only estimate how many original (salvaged) bricks can be reused, it is their genuine intention to use as many as possible to sustain the material relationships within the setting.

As the bridge is essentially a rebuilding process, a number of options are being explored in terms of mortar (including the sourcing of appropriate local sand and aggregate), however, a sample panel (bricks and mortar) will be provided (as requested by the Conservation Team) for sign off before the commencement of any works. All brickwork (including facing bricks) will be laid in English bond.



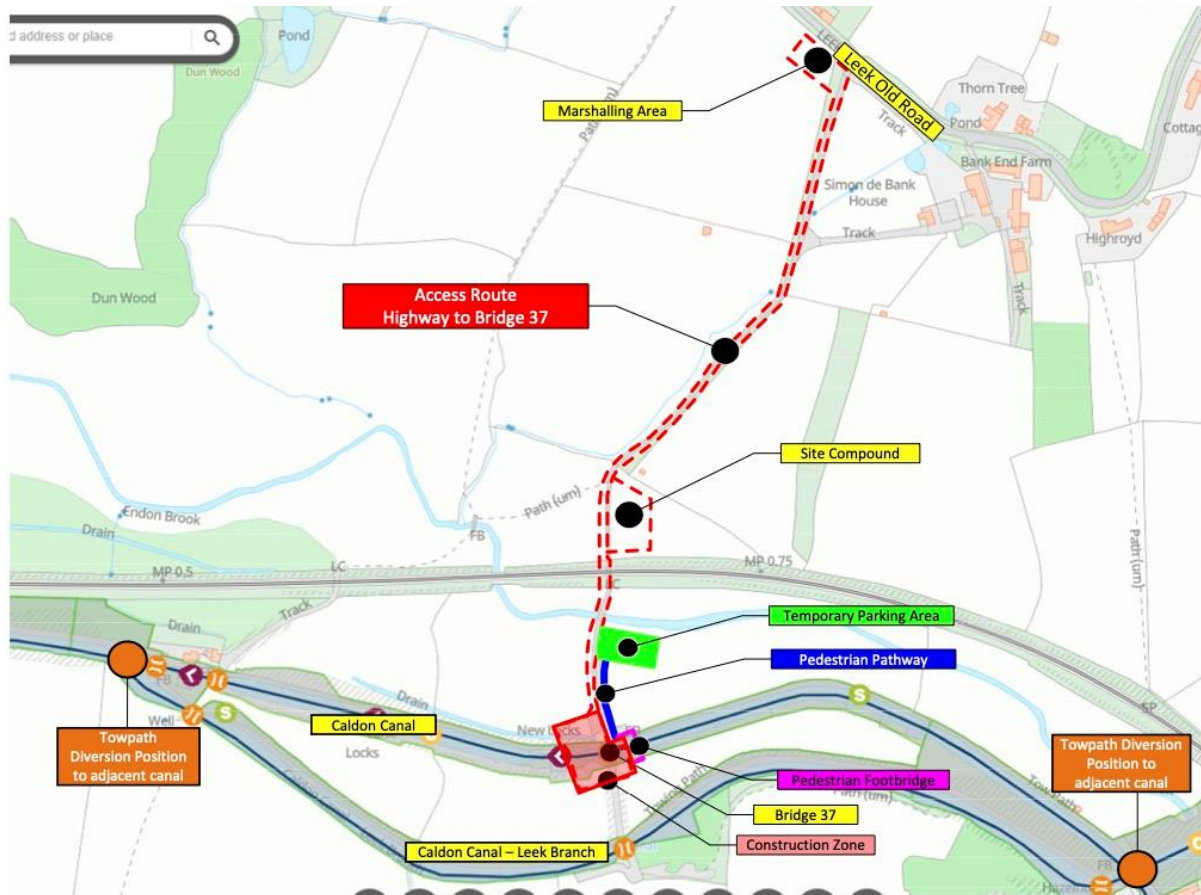
Artist's impression of Option 2 rebuild

Access & Site Arrangements

Given the proposed nature of the rebuild, the Canal & River Trust plan to mitigate the temporary closure of the existing towpath by rerouting where possible, therefore the current means of accessing the setting (along the towpath) should not change. Once the works have been completed, the existing tow path will be reinstated as per current condition.

Access to the construction site will be from the Leek New Road highway and then to the compound and working areas via a stone access trackway (see site map below). This track will be upgraded to facilitate all vehicles that will be used throughout the construction. A temporary parking area will be provided and dedicated for moorers which will be connected to the existing scaffold footbridge via a newly formed pathway, safely segregated from construction vehicles in the vicinity of the bridge. Access to, and over the existing footbridge will be maintained throughout the works. Construction zones, including the towpath in the work area will be suitably fenced to prevent public access.

A towpath diversion will be posted, with alternative route signage and maps, which will divert users to the adjacent canal towpath, which is only a minimal additional distance in length. The final bridge structure will not reduce the previous levels of accessibility.



Proposed site map including compound, tow path diversion and parking areas.

Summary

Whilst the partial loss of this designated heritage asset is regrettable, the Canal & River Trust have made every possible provision for rebuilding the new bridge in the spirit of the former structure, matching its location, form, scale, and character.

There will obviously be subtle aesthetic and material differences between the former bridge and its replacement, however, the canal setting should incorporate the structure without any meaningful sense of incongruity. Due to the proposed construction method, the bridge will be fit for purpose in terms of modern usage and be assured of a much greater sense of longevity.