



## **The Network Rail (Leeds To Micklefield Improvements) Order**

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### **Heritage Assessment For Roman Ridge Road Bridge (HUL4/14), Brady Farm Bridge (HUL4/15) and Austhorpe Lane Bridge (HUL4/21)**

Author	Network Rail
Date	June 2023
Revision Number	Rev 1



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**1. INTRODUCTION****1.1 Purpose**

1.1.1 This Heritage Statement has been prepared to support the application for works required as part of the Transpennine Route Upgrade (TRU). TRU is a major, multi-billion-pound programme of improvements to bring more frequent, faster and greener trains between York, Leeds and Manchester on a better, cleaner, more reliable railway.

1.1.2 The TRU project involves a variety of works including: the electrification of the railway (installation of overhead line equipment (OLE) and associated infrastructure); removal, re-modelling and replacement of bridges and structures to accommodate OLE, track and signalling upgrades; and structural strengthening works. Due to the historic nature of the route, this includes works to listed structures.

1.1.3 This Heritage Statement has been prepared to support the application for works required as part of the E2 to E4 project which falls between Leeds and Micklefield. It is submitted in support of the Listed Building Consent applications for three designated structures affected by the project:

- HUL4/14 Roman Ridge Road Overbridge (NHLE 1419084);
- HUL4/15 Brady Farm Overbridge (NHLE 1419091); and
- HUL4/21 Austhorpe Lane Overbridge (NHLE 1419065).

1.1.4 The LBC will be submitted in parallel with the Transport & Works Act Order TWAO Application (the Leeds to Micklefield Order). The Transport and Works Act 1992 introduced section 12(3A) into the Planning (Listed Buildings and Conservation Areas) Act 1990, the effect of which is to "call-in" for determination by the Secretary of State applications to the local planning authority for Listed Building Consent where such consent is required in consequence of proposals included in an application for a Transport and Works Act Order (TWAO). The procedures in the Transport and Works Applications (Listed Buildings, Conservation Areas and Ancient Monuments Procedure) Regulations 1992 then apply to the call in of such Listed Building Consent applications.

**1.2 Scope**

1.2.1 This document has been prepared to support the LBC, as part of the TWAO Application affecting the listed structures noted in 1.1. It presents a statement of significance for the individual structures taking into account their architectural and historic interest, as well as placing them within the wider context of railway heritage. It goes on to provide an assessment of the impact

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of the proposed works on that significance in terms of harm caused in line with current planning policy. This document also provides a background to the development of the project, including decisions in relation to avoiding, minimising and/ or mitigating the impacts through options explored and design evolution, drawing upon information set out in the Alternative Options Evaluation Studies. Finally, the public benefits are set out in brief in order to understand the harm reported and enable the scheme to be weighed in the planning balance.

1.2.2 This document is submitted alongside the following supporting information:

- Documents prepared by Alan Baxter and Associates, including the East of Leeds Statement of History and Significance (2014; included at Appendix C) and Transpennine Route Upgrade: Route-wide Statement of Significance (2019);
- Alternative Options Evaluation Studies for HUL4/14, HUL4/15 and HUL4/21;
- Drawings and visualisations submitted as part of the LBC application; and
- Documents submitted as part of the Leeds to Micklefield Order, including Document NR04: Statement of Aims which provides the strategic case for the project, and Document NR13: Planning Statement.

## **2. SUMMARY OF PROJECT AND PROPOSAL**

### **2.1 Transpennine Route Upgrade Project**

2.1.1 The proposed Network Rail (Leeds to Micklefield) Transport and Works Act Order ('the Leeds to Micklefield Order') forms part of a wider programme of works, known as the Transpennine Route Upgrade (TRU). TRU is a major, multi-billion-pound programme of improvements to bring more frequent, faster and greener trains between York, Leeds and Manchester on a better, cleaner, more reliable railway.

2.1.2 TRU is a phased programme of works to address the existing overcrowding and congestion on the route attributable to the limited capacity and dated infrastructure. The project supports economic growth, and "levelling up" opportunities across the north of England. The existing route carries a mix of fast express trains, local stopping services and freight trains but has not seen significant investment for many years.

2.1.3 The TRU programme involves a variety of works including: the electrification of the railway (installation of overhead line equipment (OLE) and associated infrastructure); removal, re-modelling and replacement of bridges and structures to accommodate OLE, track and signalling upgrades; and structural strengthening works. Where level crossings are affected by the

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improved services proposed, TRU also involves level crossing closures and, where necessary, their replacement by safer alternatives. Collectively these works and land are referred to as the Leeds to Micklefield Order Scheme (the Scheme).

- 2.1.4 The Network Rail (Leeds to Micklefield Enhancements) Order falls under the Transport and Works Act (TWA). The process for a TWAO is governed by the Transport and Works (Applications and Objections) (England and Wales) Rules 2006 (“The Rules”). Pursuant to Rule 10(6) of the Rules, the TWAO application is accompanied by a request for a Planning Direction from the Secretary of State for Transport under section 90(2A) of the Town and Country Planning Act 1990. Under the Planning Direction, the required planning permissions are deemed to be granted for the development sought to be authorised by the Order, subject to any conditions. The Order does not, however, grant consent for any works affecting Listed Buildings which fall under the Planning (Listed Building and Conservation Areas) Act 1990 (the ‘Act’).

**2.2 Project Works**

- 2.2.1 Within the East of Leeds section of TRU, between Leeds and York, a number of TRU works require land outside the control of Network Rail. These works involve the demolition and construction of overbridges, the closure of level crossings and implementation of safer alternatives, and the use of land and access for construction and associated utility diversions. These works and associated land uses will be consented and acquired via the proposed Leeds to Micklefield Order.
- 2.2.2 The Leeds to Micklefield Order will include a range of powers including the acquisition of all necessary land and rights, the temporary use of land; the authorisation of works and deemed planning permission, the diversion or stopping up of public rights of way, environmental consents, closure of the level crossings and powers to alter public highways and to undertake street works.
- 2.2.3 The Scheme includes works to four Grade II listed bridges, three of which are subject to an application for deemed planning permission as part of the TWAO. LBC for each bridge will be submitted to Leeds City Council alongside the TWAO and it is expected that these LBC applications will be called in by the Secretary of State for determination in parallel with the TWAO application.
- 2.2.4 This Heritage Statement is submitted as part of the LBC application for works to the Grade II listed HUL4/14 Ridge Road Overbridge, HUL4/15 Brady Farm Overbridge and HUL4/21 Austhorpe Lane Overbridge. Of these structures, only HUL4/15 Brady Farm does not fall under deemed planning permission.

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The bridges will be physically impacted; therefore, consent is required to undertake the works under the 1990 Act. Details of the proposals are provided in Section 6 below.

### 2.3 Consultation

2.3.1 Consultation has been undertaken with both Historic England and Leeds City Council throughout the project. Regular meetings have been held to discuss the project and evolving options for the listed structures.

2.3.2 The design development has been presented to the heritage stakeholders at a series of meetings. These included briefings on the objectives of the project, the requirement for intrusive works and the design evolution, as well as discussion of any concerns and to work collaboratively on design proposals. Meetings were held on the following dates:

- **Meeting on 2nd August 2018** to introduce the project to Historic England. A project overview was given alongside an outline of what was considered to be the key heritage issues. Historic England raised the need for a holistic approach to the assessment to understand the impact on the railway as a whole, not just individual structures. An approach to optioneering was also discussed with the outcome to provide an options appraisal and matrix outlining why the preferred option has been chosen.
- **Meeting on 20th October 2020** with Historic England to present updates to the project. The consenting process was explained and need for a TWA Order identified. The key listed structures to be affected by the East of Leeds section of TRU were identified and potential options put forward.
- **Meeting on 26th May 2021** with Historic England and Leeds City Council (LCC). It was clarified that only five listed structures now require significant works. More detail was presented regarding the options explored for each listed structure, including engineering intervention. The presence of historic mining and local geology was discussed due to its impact on the options. A request was made to consider bridge jacking as an option for the listed structures at Roman Ridge Road Overbridge (HUL4/14), Brady Farm Overbridge (HUL4/15) and Austhorpe Lane Overbridge (HUL4/21).
- **Meeting on 18th February 2022** with Historic England and LCC to discuss the results of the optioneering process. The results of the bridge jacking were presented and it was noted that specialists had concluded that it was not possible for HUL4/14, HUL4/15 and HUL4/21. Initial designs for replacement structures were also presented.
- **Meeting on 13th June 2022** with Historic England and LCC to present the proposed designs for replacement structures at HUL4/14 and HUL4/21. It was agreed that the weathered steel arch was the preferred design. It was also agreed that the same design should be used for both replacement bridges. The intention to lift Crawshaw Woods bridge was also discussed

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and it was noted that structural surveys were required. It was noted during the meeting that screens are no longer required at Aberford Road Overbridge (HUL4/18), therefore the structure no longer required any works requiring Listed Building Consent.

- **Responses to statutory consultation** responses were received from both Historic England and LCC. Historic England noted agreement in principle for the loss of Brady Farm. In mitigation it was requested that material from Brady Farm be re-used elsewhere within the scheme. The hybrid approach to the design of a replacement structure for Roman Ridge Road was also welcomed, but additional detail regarding the potential for rebuilding in stone was requested. This has subsequently been added to the Alternative Options Evaluation Study. Further detail was requested for the proposals at Austhorpe Lane and Crawshaw Woods. The response from LCC noted that the loss of the listed structures was deemed to represent substantial harm.
- **Meeting on 10th March 2023** with Historic England and LCC to provide an update on the preferred options for HUL4/14 and HUL4/15. The results of the structural survey for HUL4/20 Crawshaw Woods were also presented, confirming the ability to raise the cast iron structure. The new design for the bridge were presented. Updates were also provided regarding the widening of HUL4/21 Austhorpe Lane Overbridge to two lanes with integrated footbridge. Discussions were also held regarding the documents to be submitted as part of the LBC application and the proposed conditions, to include a Conservation Implementation Management Plan for HUL4/20 Crawshaw Woods.

2.3.3 Engagement with Historic England and LCC will continue throughout the period running up to submission and determination of the LBC and TWAO application and subsequently into the discharge of conditions to be attached to the Listed Building Consents.

## 3. PLANNING LEGISLATION AND POLICY CONTEXT

### 3.1 Legislation

#### Planning (Listed Buildings and Conservation Areas) Act 1990

3.1.1 The Planning (Listed Buildings and Conservation Areas) Act 1990 (as amended) is the principal statutory instrument that must be considered in the determination of any application affecting listed buildings and conservation areas.

3.1.2 Under Section 16 of the Act, listed buildings are protected against unauthorised works, being those works not authorised by the local planning authority or the Secretary of State. This process is embodied within Listed Building Consent (LBC). The Act further states that ‘the local planning authority or, as the case may be, the Secretary of State may grant or refuse

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an application for listed building consent and, if they grant consent, may grant it subject to conditions' (Section 16 (1)). Furthermore, 'in considering whether to grant listed building consent for any works the local planning authority or the Secretary of State shall 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 16 (2)).

- 3.1.3 Section 17 of the Act deals with conditions attached to a Listed Building Consent, including the preservation of particular features, making good after completion of the works and use of original materials. Of relevance to this application, Section 17 (2) states that a condition 'may also be imposed requiring specified details of the works (whether or not set out in the application) to be approved subsequently by the local planning authority or, in the case of consent granted by the Secretary of State, specifying whether such details are to be approved by the local planning authority or by him'.
- 3.1.4 In considering whether to grant planning permission which affects a listed building, Section 66 (1) of the Act requires that the local planning authority, or the Secretary of State 'shall 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'.

### **3.2 National Planning Policy**

#### National Planning Policy Framework (NPPF; MHCLG 2019)

- 3.2.1 The NPPF sets out the Government's planning policies for England and how these should be applied to contribute to the achievement of sustainable development. Section 16 of the NPPF sets out a series of policies that are a material consideration to be taken into account in development management decisions in relation to the heritage consent regimes established in the Ancient Monuments and Archaeological Areas Act 1979 and the Planning (Listed Buildings and Conservation Areas) Act 1990.
- 3.2.2 The NPPF describes the importance of being able to assess the significance of heritage assets that may be affected by a development proposal. In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. Furthermore, they should take this assessment into account when considering the impact of a proposal on a heritage asset (paragraph 190). Significance is defined in Annex 2 as 'the value of an asset because of its heritage interest. This interest may be archaeological, architectural, artistic or historic and can extend to its setting.' The setting of a heritage asset is defined in Annex 2 as 'the surroundings in which a heritage asset is experienced'. The level of detail should be

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proportionate to the asset's importance and no more than is sufficient to understand the potential impact of the proposal on their significance (paragraph 189).

3.2.3 In determining planning applications, local planning authorities should take account of:

- the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation;
- the positive contribution that conservation of heritage assets can make to sustainable communities including their economic vitality; and
- the desirability of new development making a positive contribution to local character and distinctiveness (paragraph 192).

3.2.4 Paragraphs 193 to 196 of the NPPF introduce the concept that heritage assets can be harmed or lost through alteration or destruction or development within their setting. This harm ranges from less than substantial through to substantial. With regard to designated assets, paragraph 193 states that great weight should be given to an asset's conservation and the more important the asset, the greater the weight should be. Distinction is drawn between those assets of exceptional interest (e.g. grade I and grade II\* listed buildings), and those of special interest (e.g. grade II listed buildings). Any harm or loss of heritage significance requires clear and convincing justification, and substantial harm or loss should be wholly exceptional with regard to those assets of greatest interest (paragraph 194).

3.2.5 In instances where development would cause substantial harm to or total loss of significance of a designated asset, consent should be refused unless that harm or loss is 'necessary to achieve substantial public benefits that outweigh that harm or loss' (paragraph 195). In instances where development would cause less than substantial harm to the significance of a designated asset, the harm should be weighed against the public benefits of the proposal including its optimum viable use (paragraph 196).

#### Planning Practice Guidance (MHCLG 2019)

3.2.6 The Planning Practice Guidance (PPG; MHCLG 2019) is a government produced on-line document that expands on national policy presented in the NPPF. It expands on terms such as 'significance' and its importance in decision making. The PPG clarifies that being able to properly assess the nature, extent and the importance of the significance of the heritage asset and the contribution of its setting, is very important to understanding the potential impact and acceptability of development proposals (paragraph 008).

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- 3.2.7 The PPG discusses how to assess if there is substantial harm. It states that what matters in assessing if a proposal causes substantial harm is the impact on the significance of the asset. It is the degree of harm to the asset's significance rather than the scale of the development that is to be assessed (paragraph 017).
- 3.2.8 The NPPF indicates that the degree of harm should be considered alongside any public benefits that can be delivered by development. The PPG states that these benefits should flow from the Proposed Development and should be of a nature and scale to be of benefit to the public and not just a private benefit and would include securing the optimum viable use of an asset in support of its long term conservation (paragraph 020).

**3.3 Historic England Advice**

- 3.3.1 Historic England has published a series of Good Practice Advice (GPA) notes, of which those of most relevance to this appraisal are GPA2 - Managing Significance in Decision-Taking (March 2015) and Advice Note 12 Statements of Heritage Significance (Oct. 2019).
- 3.3.2 GPA2 emphasises the importance of having a knowledge and understanding of the significance of heritage assets likely to be affected by the development and that the 'first step for all applicants is to understand the significance of any affected heritage asset and, if relevant the contribution of its setting to its significance' (paragraph 4). Early knowledge of this information is also useful to a local planning authority in pre-application engagement with an applicant and ultimately in decision making (paragraph 7).
- 3.3.3 Advice Note 12 outlines a recommended approach to assessing the significance of heritage assets in line with the requirements of NPPF. It includes a suggested reporting structure for a 'Statement of Heritage Significance,' as well as guidance on creating a statement that is proportionate to the asset's significance and the potential degree of impact of a proposed development. The Advice Note also offers an interpretation of the various forms of heritage interest that an asset can possess, based on the terms provided in the NPPF Glossary (Annex 2: Glossary); namely archaeological, architectural and artistic, and historic.

**3.4 Local Planning Policy**

- 3.4.1 The Leeds Core Strategy sets out the strategic policy framework for the Leeds district up to 2033. Policy P11: Conservation recognises the importance of heritage in shaping the city and aims to conserve and enhance the historic environment. Specific note is made of the contribution made by the 19th century transport network. Development proposals will be expected to

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demonstrate a full understanding of historic assets affected, with a requirement to produce a heritage statement assessing the significance of assets, the impact of proposals and mitigation measures to accompany development proposals.

3.4.2 The statutory development plan for Leeds is represented by the adopted Unitary Development Plan. Within this document are a number of policies specific to the historic environment. With regard to listed buildings this includes:

- Policy N14: there will be a presumption in favour of the preservation of listed buildings. Consent for the demolition or substantial demolition of a listed building will be permitted only in exceptional circumstances and with the strongest justification.
- Policy N17: wherever possible, existing detailing and all features, including internal features, which contribute to the character of the listed building should be preserved, repaired or if missing replaced...

3.4.3 Also of relevance to this report is Policy N13 which states that ‘the design of all new buildings should be of high quality and have regard to the character and appearance of their surroundings. Good contemporary design which is sympathetic or complementary to its setting will be welcomed.’

## 4. HERITAGE ASSETS AND THEIR SIGNIFICANCE

### 4.1 Heritage Baseline

#### Overview

4.1.1 The route reflects the agricultural development of the landscape until the arrival of the industrial age in the late 18th and 19th century. This had a striking effect on the landscape, particularly at the western end with the expansion of Leeds as an industrial centre.

4.1.2 The railway forms an important part in this industrialisation, cutting through the rural landscape to link the burgeoning towns. The railways took over from the canals in transporting goods and people across the country. The canals were focussed around the existing waterways, linking the industrial towns of the midlands and northwest. The railways provided the opportunity to link more rural areas and smaller towns to encourage a larger movement of people, and thus a workforce, over goods.

4.1.3 The East Leeds to Selby line was one of the first main lines to open after the Liverpool and Manchester Railway. The line was granted permission in 1830 and was constructed to the designs of notable engineer James Walker. A number of Walker’s structures still remain as part of the line which has

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continued to grow and evolve as demand for its services has increased and railways have modernised. A survey of the structures was carried out in 2014 (Baxter et al) and, as a result, a number of structures, principally bridges, were given Listed Building status.

Landscape, Topography and geology

4.1.4 West Yorkshire has a diverse landscape character including open moorland, agricultural countryside, medieval villages and hamlets, market towns and urban centres such as Leeds, Bradford and Wakefield. The western border of the landscape is formed by the high Pennine watershed that slopes eastwards towards the Vale of York. The eastern Pennine slopes are characterised by five principal rivers; the Wharfe, Aire, Calder, Colne and Holme which drain eastwards. The region can be subdivided into three distinct geological groups: the Mill Stone Grit group, the Pennine Coal Measures and the Magnesian Limestone Belt with undifferentiated Permian sandstones. All of these factors have had an influence of the historic development of the area, particularly the rivers and coal measures which were important factors in West Yorkshire's industrial expansion. The geology has also influenced building patterns with a cohesion in the use of limestone in buildings and structures which give the area its characteristic vernacular.

Historic Development

4.1.5 During the early Medieval period, West Yorkshire had an agrarian based economy. Settlements consisted of small, nucleated villages, surrounded by regular and extensive open field systems. Towards the 15th and 16th centuries there was a shift towards an industrial based economy, the textile industry emerging first in Halifax and the Upper Calder valley.

4.1.6 By the early 17th century, the focus of the economy had shifted from agrarian to industrial, the coal fields providing a source of fuel for industry. Combined with the local availability of raw materials such as wool and the improving transport networks, rapid growth was experienced in textile and other manufacture during the industrial period. The industrial transformation of West Yorkshire meant that by the early 19th century towns were rapidly expanding. Quarries became large scale in the rural areas, workers' housing was constructed on a large scale and suburbs were developing.

4.1.7 A Leeds and Selby canal was proposed in 1769 in order to compete with the Leeds and Calder Navigation which provided the main transport route for moving raw and manufactured goods. A route was surveyed but the plans failed and attention soon turned to the railways instead. From 1814 the Leeds Mercury Newspaper had been promoting the idea of a Leeds to Selby railway

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and a Leeds and Hull railroad was formed in 1824. A route for the Leeds to Hull railway via Selby was surveyed by George Stephenson and Joseph Locke, but received little support due to both financial constraints and the difficult terrain. At a meeting in 1829 the Leeds and Selby railway company was founded, reviving a shortened version of the Leeds and Hull railway. The route was resurveyed by James Walker, a prominent engineer who worked principally on marine works and docks, but who had previously provided advice to Stephenson on the Liverpool and Manchester line. The Leeds and Selby railway remains his most important railway project.

**The Leeds to Selby Route**

- 4.1.8 The Act of Parliament for the Leeds and Selby Railway was authorised in 1830, notably four months before the opening of the Liverpool and Manchester Railway, the world's first inter-urban railway. The Act suggested a single track with three passing places; however, land was purchased to accommodate four tracks at the suggestion of Walker. Walker's plans also avoided the difficulties in terrain through the use of locomotive power rather than inclined planes. In addition, much of the line was proposed to be constructed on land owned by stakeholders, immediately creating support for the venture. James Walker's altered plans were put to Parliament and accepted. Two contractors were selected, Nowell and Sons for the two mile stretch out of Leeds, and Hamer and Pratt for the remaining 18 miles.
- 4.1.9 The primary feature of the Leeds to Selby railway was Marsh Lane tunnel at Richmond Hill, at the time the longest tunnel in the world at 700 yards and the first open to passenger trains (the present tunnel has been substantially modified). Walker designed the tunnel to accommodate the line through the irregular topography east of Leeds, with the remainder of the track crossing the countryside via a combination of embankments and cuttings.
- 4.1.10 The line was constructed with a total of 43 bridges and 16 level crossings. Originally it was proposed to construct twin arch bridges to accommodate the four lines, but instead the distinctive single span 'basket' arch was employed, a feature unique to Walker's design. The choice of the single span bridge led to its own inherent problems, particularly in the stabilisation of the embankments and cuttings. A number of the bridges also failed and had to be rebuilt. Walker also favoured stone for his structures, using a combination of sandstone for the decorative elements and limestone for the facing. He did incorporate two iron bridges along the route, of which only HUL4/20 Crawshaw Woods bridge survives. The reason for using metal here remains unclear, but may have been due to concerns over the stability of the foundations (Baxter et al, 2014).

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- 4.1.11 The railway was opened to the public on the 22nd of September 1834, delayed due to shortages of labour and materials and embankment landslides. In the 1840s, Walker designed the Hull & Selby Railway which extended the line to the docks. By 1869 the line had been lengthened from Marsh Lane to Leeds centre and from Micklefield to Church Fenton under the North Eastern Railway. A number of works were undertaken under their ownership. This included the rebuilding of many of the intermediate stations in the house style, including Garforth Station in 1873. The Marsh Lane tunnel was widened and re-opened in 1894.
- 4.1.12 Rapid urban growth continued into the mid-20th century, now as the result of housing developments rather than industry. Settlements along the railway expanded accordingly to accommodate the growing commuter population, particularly around Crossgates and Garforth. Austhorpe Lane, which had been a rural lane linking Austhorpe Hall and Manston Lodge, was lined with housing to the north by the early 20th century as a result of the rebuilding of Cross Gates Station in 1902. In the mid-20th century housing was also encroaching to the south, with the gradual coalescence of Cross Gates and Austhorpe. Ridge Road in contrast carried a turnpike road over the railway, following the alignment of an earlier Roman route. With the area dominated by coal mines and limestone quarries, it remained free of development.
- 4.1.13 The North Eastern Railway company was absorbed by the London North Eastern Railway in 1923, becoming part of the nationalised British Railways in 1948. In 1958 Marsh Lane station was closed followed by Hambleton in 1959 with East Garforth station opening in 1987. The Great North Eastern Railway proposed to electrify the section of the railway line between Leeds and Hambleton junction in 2005, however they lost the franchise in 2006.

**4.2 Significance of Assets**

- 4.2.1 The following section outlines the significance of the three listed buildings subject to this Listed Building Consent. The statement of significance has been generated in accordance with Historic England guidance and refers to terms used within the NPPF, namely artistic, architectural, archaeological and historic interest. Key sources of information include the official designation reports (included at Appendix A), as well as the Statement of Significance undertaken by Alan Baxter Ltd (2019) to inform the early stages of this project. The report by Alan Baxter Ltd was used to inform the designation of a number of structures along the railway and provides a comprehensive discussion of the architectural and historic interest of the railway. It is not the intention of this report to repeat this information.

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4.2.2 Reference has also been made to the 2014 overview of significance for historic railways prepared as part of the National Heritage Protection Plan commissioned by Historic England. This sets out information regarding the significance of historic railway infrastructure in order to guide Historic England in managing change to the historic railway network, specifically in response to current programmes of planned change, including electrification.

**Listed buildings**

4.2.3 Forming part of the railway are a number of designated structures which highlight the importance of the historic railway itself. These structures were designated in 2015 after a comprehensive review of the line.

4.2.4 The reasons for listing mainly focused on the uniform and unusual design attributed to James Walker and William Burges, notably the 'basket' arch bridges. These have group value, designed to the same aesthetic and local materials. The design also represents an unusual solution to the accommodation of four tracks, although only two were ever constructed. The semi-elliptical 'basket' arch is unique to the Leeds to Selby line and represents a feat of engineering specifically designed for their location. Originally there were 43 bridges across the Leeds to Selby route, 13 of which survive. Those which survive largely unaltered have been designated as grade II listed buildings; however, a number of similar structures survive which, due to subsequent loss of historic fabric and modern intervention, do not meet the high standards of designation, but nevertheless add to the group value of the railway.

4.2.5 The surviving 'basket' arch bridges include:

- Milford Road, HUL3/6 (NHLE 1421089), grade II listed underbridge, unusual as a skew bridge;
- Gorse Lane HUL3/8 (NHLE 1421094), grade II listed overbridge, unusual as a skew bridge;
- Newthorpe Cattle Creep Bridge, HUL3/11 (NHLE 1421092), grade II listed underbridge; Old North Road Bridge, HUL4/13 (NHLE 1419087), a grade II listed railway single span basket arch underbridge. The span of the underbridge is unusually wide to accommodate the Great North Road;
- Roman Ridge Road Bridge, HUL4/14 (NHLE 1419084), a grade II listed railway overbridge.
- Brady Farm Bridge, HUL4/15 (NHLE 1419091), a grade II listed railway overbridge. The deck is unusually low and 20th century railings have been added, excluded from the designation;

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- Aberford Road Bridge, HUL4/18 (NHLE 1419088), a grade II listed railway overbridge located at Garforth station. Although the height of the parapets has been increased, the original coping has been preserved and reused;
- Barwick Road Bridge HUL4/19 (NHLE 1237433), a grade II listed brick underbridge;
- Austhorpe Lane Bridge, HUL4/21 (NHLE 1419065), a grade II listed railway overbridge. The west face of the bridge has been obscured by the construction of a concrete and steel footbridge built immediately adjacent in 1961;
- Halton Dial Bridge, HUL4/30 (NHLE 1419068), a grade II listed underbridge. The width of the bridge was stipulated by the Tadcaster and Halton turnpike trust;
- Osmondthorpe Subway, HUL4/31 (NHLE 1419085) is a grade II listed brick subway;
- Bar Lane bridge HUL4/16, a non-designated single span basket arch overbridge. The bridge was significantly altered in 2004, and the widened roadway now hangs over the original parapet with metal railings; and
- Cross gates bridge HUL4/23, a non-designated single span basket arch overbridge. The bridge has been significantly altered with the addition of a concrete parapet and span and brick abutment.

4.2.6 Other railway structures were designated due to their individuality in design and construction, but forming part of the cohesive railway and contributing to the group value. These structures have historic interest as part of the Leeds and Selby Railway, one of the world's oldest working railways, as well as architectural interest in their design and execution.

4.2.7 Other structures were added to the railway as it developed and contribute to the understanding of the evolution of the railway and enhance its group value. Notable among these are the following:

- Crawshaw Woods bridge, HUL4/20 (1419062; listed as Crawshaw Woods (Shippen House Farm) bridge), a grade II listed cast iron overbridge. Crawshaw Woods bridge was designed by Walker and Burges as one of only two cast-iron bridges built over the Leeds and Selby railway 1830-34. The bridge comprises a segmental cast-iron single arch with a 50 ft span with pierced balustrade, made by Stanningley Ironworks in Leeds. The bridge is of particular historical interest as the earliest cast-iron bridge still in-situ over an operational railway.
- Garforth Station Footbridge, HUL4/17 (NHLE 1393728), a grade II listed cast and wrought iron footbridge located at Garforth Station. The footbridge, constructed in 1900 to the standard design of the North Eastern Railway, comprises an elliptical arch in four sections with iron balusters. Consent for the removal of this structure to another railway location was granted in 2022 with expected removal during 2023.

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- Micklefield Station Warehouse and Station Master's House HUL4/12, the only surviving buildings of the 1830-34 Micklefield Station. The warehouse has now been converted for residential use.
- Pontefract Street bridge HUL4/35, a horseshoe-arch overbridge located within Leeds. The bridge was built in 1892 by North Eastern Rail after the widening of the Richmond Hill tunnel. The bridge has been heavily repaired with engineering brick.
- Pontefract Lane HUL4/34, a horseshoe-arch overbridge located within Leeds. The bridge was built in 1892 by North Eastern Rail after the widening of the Richmond Hill tunnel, during the same period as Pontefract Street HUL4/35.
- Huddlestone Road bridge CFM/8, a single span overbridge constructed 1865-69 when the railway line was extended from Micklefield to Church Fenton by the North Eastern Railway. The bridge is an intact example of NER standard architecture.
- Barkston Road bridge CFM/5, a single segmental arch Like Huddlestone Road bridge, the bridge was constructed 1865-69 when the railway line was extended from Micklefield to Church Fenton by the North Eastern Railway.
- High Bridge CFM/11, an overbridge with segmental arch located in a high rock walled cutting. The bridge was constructed 1865-69 when the railway line was extended from Micklefield to Church Fenton by the North Eastern Railway.
- Rose Lane footbridge, CFM/2A, built in riveted iron in 1869 when the railway line was extended from Micklefield to Church Fenton by the North Eastern Railway. The bridge has been heavily altered during the early 20th century.
- Saw Well Lane bridge CFM/4, an underbridge built in 1869. Though not remarkable in its design or construction, the bridge is of some historic interest as an intact example of NER standard architecture.
- Garforth Station HUL4/17, constructed in 1873, the original 1830-34 station buildings being demolished during the 1960s. The design of the buildings, in red brick with pitched roofs is considered typical of late Victorian railway structures.
- Diadem Drive subway HUL4/28, an underbridge built in 1830-34, widened in 1892.
- Richmond Hill Tunnel, HUL4/36, a short brick tunnel built in 1892 by Whittaker Bros as part of the replacement of the original Richmond Hill Tunnel by Walker for the Leeds and Selby railway.
- Kirkgate Underbridge HUL4/47 a single span metal underbridge which forms part of the Marsh Lane Viaduct in Leeds. It was constructed as part of the extension of the from Marsh Lane to Leeds centre. The bridge is of standard design for the railway, but due to its scale and height it makes a

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striking feature in the streetscape, connecting to the adjacent viaduct. It is likely that other examples were built, but these have been replaced with modern bridges.

- 4.2.8 The listed structures relevant to this application all form part of the original Walker and Burges 'basket' arch bridges, dating to the 1830s. A detailed description of each is presented below, including information regarding subsequent alterations which have affected their historic significance.

### HUL4/14 Roman Ridge Road

- 4.2.9 Roman Road Overbridge (HUL4/14) forms part of the original Leeds to Selby railway built between 1832-4. It was designed by Walker and Burges' and uses their distinctive single span 'basket' arch to carry Roman Ridge Road (the present A656) over the railway.

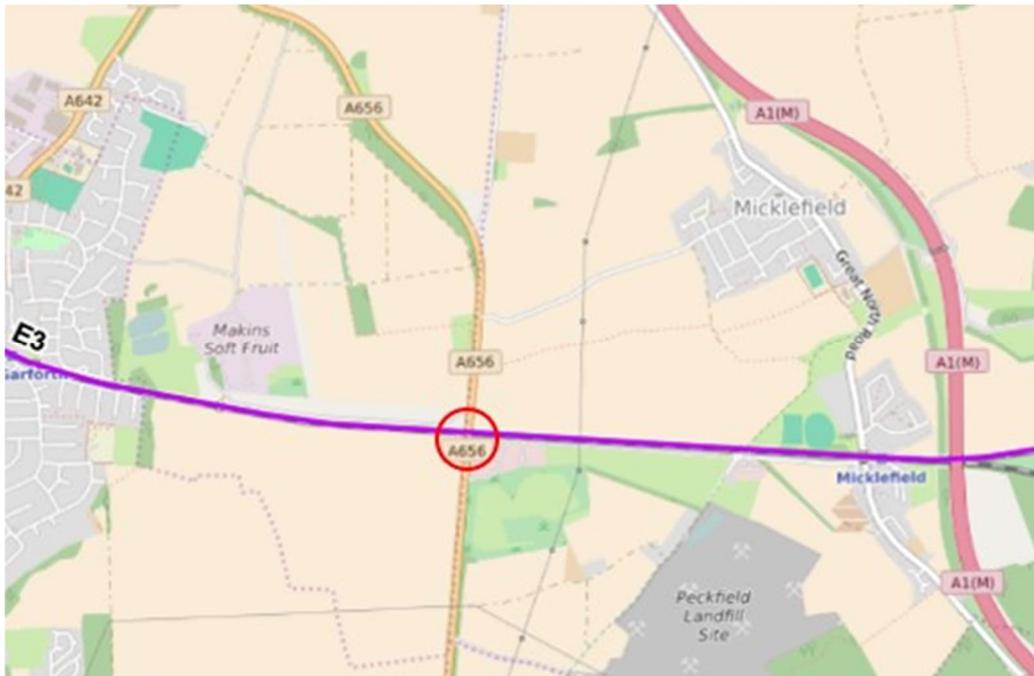


Figure 1 – HUL4/14 Location Plan

### *Description*

- 4.2.10 The bridge is constructed from sandstone with a quarry cut limestone facing and brick soffit. The abutments are constructed from coursed limestone with an impost band at Springer level. The arch itself has stepped V-jointed ashlar voussoirs, surmounted by a square moulded string course. The parapet above continues the quarry faced limestone using large blocks dressed with horizontal tooling and rising to 1m above road level. The parapet has curved ends with rounded coping and oval piers.

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4.2.11 The bridge survives largely unaltered. Palisade security fencing has been added to the northwest, but is not physically attached to the structure. Vegetation is also growing from the eastern footpath, adjacent to the parapet; however, a visual inspection undertaken in 2019 concluded the bridge was in a fair structural condition.



**Figure 2 – HUL4/14 from track level**

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**Figure 3 – HUL4/14 Parapet detail**

### *Significance*

- 4.2.12 The bridge has historic interest as part of the original Leeds to Selby Railway. The Leeds to Selby line was constructed during the early phase of railway building, before the ‘railway mania’ of the mid-19th century, and is therefore one of the earliest in the world. This interest is reinforced by its association with the renowned engineer James Walker who constructed a pioneering railway intended for four tracks, despite only two ever being installed. This led to the unusual single span arch design which was unprecedented at the time of construction, extending over 18.6m. This bridge has additional interest in being the second one constructed at this location, the failure of the first one highlighting the difficulties in achieving its large span.
- 4.2.13 Architecturally the bridge is also of interest due to the high level of craftsmanship and materials used, with attention to detail in ashlar voussoirs and notably its pronounced tooling and curved piers to its parapet. The bridge

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is characteristic of the line, being one of originally 43 along the route (13 of which survive), with Roman Ridge Road (HUL4/14) surviving relatively unaltered and in a good structural condition.

### HUL4/15 Brady Farm Overbridge

4.2.14 Brady Farm Overbridge (HUL4/15) forms part of the original Leeds to Selby railway built between 1832-4. It was designed by Walker and Burges' and uses their distinctive single span 'basket' arch. It was designed to carry a farm access track linking two areas of farmland occupied by Thomas Wade (1849 tithe record). There is no evidence that the bridge was installed to carry an existing footpath or road, but was always intended for agricultural use.

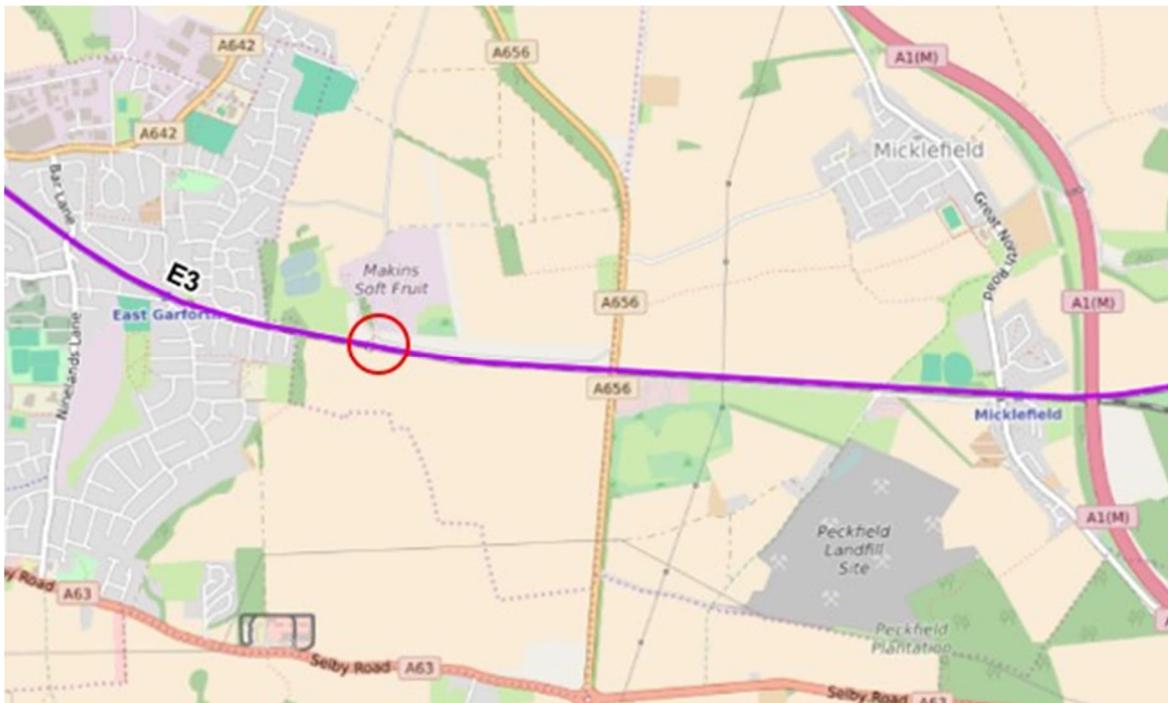


Figure 4 – HUL4/15 Location plan

#### *Description*

4.2.15 The bridge is constructed from sandstone with a quarry cut limestone facing and brick soffit. The abutments are constructed from coursed limestone with an impost band at Springer level. This is not present to the west face of the abutment where the arch meets the railway cutting. The arch itself has stepped V-jointed ashlar voussoirs, surmounted by a square moulded string course. The parapet above continues the quarry faced limestone using large blocks dressed with horizontal tooling. The stone parapet rises to only 0.42m above the deck surface and has been heightened to 1.5m by the addition of modern steel and mesh railings (excluded from the listing). The stone parapet has curved ends with rounded coping and oval piers.

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- 4.2.16 The bridge survives relatively unaltered with the exception of the railings. These have been unsympathetically installed with the posts drilled into the coping stones. Palisade security fencing has been added to each side, but is not physically attached to the structure. The bridge is not currently in use, being blocked by large concrete blocks. As a result there is an excess of vegetation along the deck and on the embankments. A visual inspection of the bridge in 2019 concluded that it was in a fair condition; however, there was evidence of water percolation and vertical stepped fractures, spalling and isolated open joints. There was also evidence of displacement of the parapets.



**Figure 5 – HUL4/15 – Elevation**

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**Figure 6 – HUL4/15 – Parapet detail**

### *Significance*

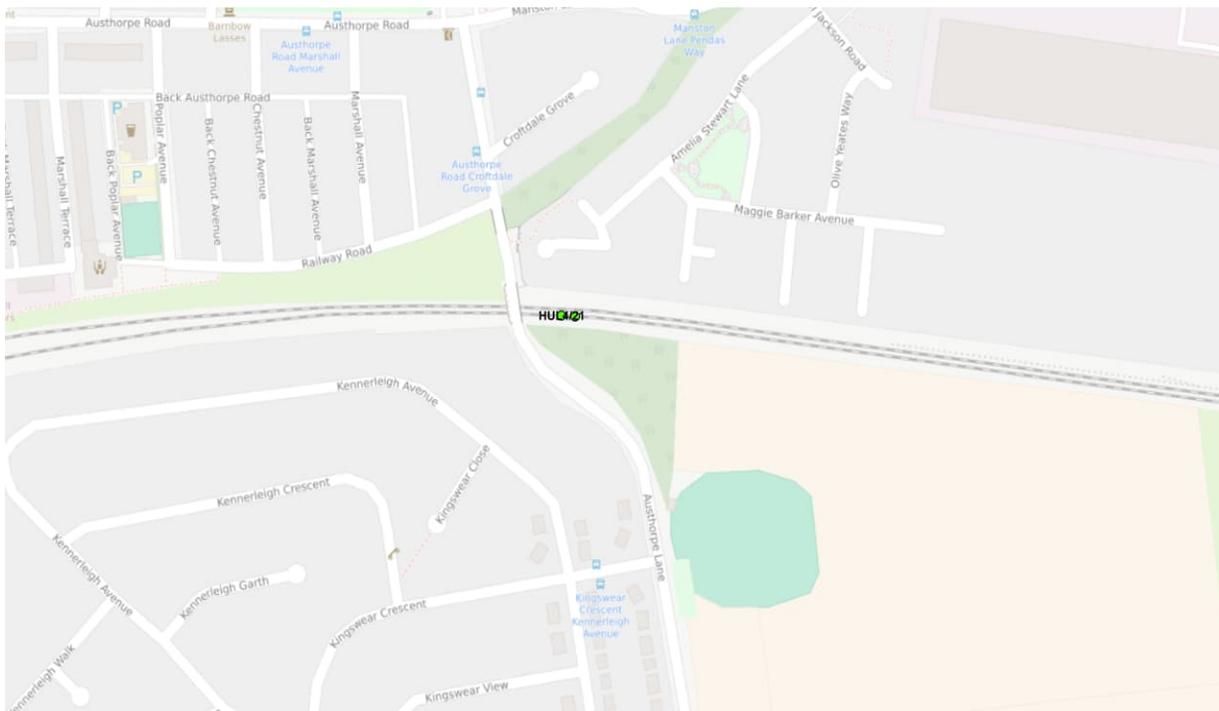
- 4.2.17 As with Roman Ridge Road, Brady Farm Overbridge has historic interest as part of the original Leeds to Selby Railway, one of the earliest railways in the world. This interest is reinforced by its association with the renowned engineer James Walker who constructed a pioneering railway intended for four tracks, despite only two ever being installed, leading to its unusual design. This example was built purely to accommodate farm access.
- 4.2.18 Architecturally the bridge is also of interest due to the high level of craftsmanship and materials used, with attention to detail in ashlar voussoirs and notably its pronounced tooling and curved piers to its parapet. Damage has been done to these as a result of the installation of the modern railings to both sides and across the entire length.
- 4.2.19 The bridge is characteristic of the line, being one of originally 43 along the route (13 of which survive). Brady Farm survives relatively unaltered and in a fair structural condition.

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### HUL4/21 Austhorpe Lane Overbridge

4.2.20 Austhorpe Lane Overbridge (HUL4/21) forms part of the original Leeds to Selby railway built between 1832-4. It was designed by Walker and Burges' and uses their distinctive single span 'basket' arch to carry Austhorpe Lane, a single carriageway highway, over the railway. Situated adjacent to the bridge to the west is a separate concrete footbridge added in the late 20th century. To the east is a high level High Pressure (HP) gas main pipe bridge.



**Figure 7 – HUL4/21 Location plan**

#### *Description*

4.2.21 The bridge is constructed from sandstone with a quarry cut limestone facing and brick soffit. The abutments are constructed from coursed limestone with an impost band at Springer level. On both sides the arch meets the stone cutting of the embankment, unlike in the other examples. The arch itself has stepped V-jointed ashlar voussoirs, surmounted by a square moulded string course. The parapet above continues the quarry faced limestone using large blocks dressed with horizontal tooling. The stone parapet rises to 1m above the deck surface. The stone parapet has curved ends with rounded coping and oval piers. Extending from the parapet to both ends are metal crash barriers to the east and the metal railings of the footbridge to the west. These are not physically attached to the structure.

4.2.22 The bridge survives largely unaltered; however, it is obscured to the west by the unsympathetic concrete footbridge which runs immediately adjacent. To

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the east is palisade security fencing has been added, but again is not physically attached to the structure. A visual inspection undertaken in 2019 concluded the bridge was in a fair structural condition.



**Figure 8 – HUL4/21 Elevation**



**Figure 9 – HUL4/21 Parapet detail and footpath**

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### *Significance*

- 4.2.23 Austhorpe Lane Overbridge has historic interest as part of the original Leeds to Selby Railway, one of the earliest railways in the world. This interest is reinforced by its association with the renowned engineer James Walker who constructed a pioneering railway intended for four tracks, despite only two ever being installed, leading to its unusual design. This example was built purely to accommodate farm access and provides evidence for the status of the land owner at Sturton Grange to the north.
- 4.2.24 Architecturally the bridge is also of interest due to the high level of craftsmanship and materials used, with attention to detail in ashlar voussoirs and notably its pronounced tooling and curved piers to its parapet. The appreciation of the bridge is now somewhat eroded by the modern crash barriers at deck level, along with the addition of the footbridge which obscures the arch from the railway itself.

### Group Value

- 4.2.25 All three bridges have group value as part of the original Leeds to Selby Railway, one of the first in the country and thus the world. They are united in architectural style, materials and execution and epitomise the work of renowned railway engineer James Walker. They are also of evidential value in revealing the engineering ability of the early 19th century railway designers in their ability to construct a single span masonry structure over such a great width. This was necessitated by the plan to have a four track railway which, although never initiated, would have been the first of its kind.
- 4.2.26 The bridges represent three of the 43 originally built along the full Leeds to Selby route. Their grade II listed status reflects the good survival of these examples, with another five listed within the project area. As such they do make a contribution to the significance of the railway as an asset in its own right. Their group value is considered to enhance their significance.

## **5. DETAILED PROPOSALS**

### **5.1 Description of proposals**

- 5.1.1 The TRU project involves the electrification of the line between Leeds and York. As part of the electrification of the line it is necessary to increase clearance under existing underbridges. The majority of structures can accommodate this increase without the requirement for physical intervention. However, there are four grade II listed structures along the route where this is not possible, including Roman Ridge Road Bridge (HUL4/14), Brady Farm Overbridge HUL4/15 and Austhorpe Lane Overbridge HUL4/21. A number of

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options have been considered in order to gain clearance, as presented in the accompanying Alternative Options Evaluation Studies (AEOS), including track lower and track slue. However, it remains necessary to do extensive work to the listed bridges.

5.1.2 The proposed works to the bridges are presented in the following drawings which form part of this application:

<b>Structure</b>	<b>Drawing</b>	<b>Title</b>
<b>Ridge Road (HUL4/14)</b>	151666-TRA-00-HUL4-DRG-R-SG-340001	Location Plan
	151666-TRA-00-HUL4-DRG-R-SG-340002	Proposed Plan
	151666-TRA-00-HUL4-DRG-R-SG-340003	Elevations West
	151666-TRA-00-HUL4-DRG-R-SG-340004	Elevations East
	151666-TRA-00-HUL4-DRG-R-SG-340005	Proposed Sections
	151666-TRA-00-HUL4-DRG-R-SG-340006	Existing Sections
<b>Brady Farm (HUL4/15)</b>	151666-TRA-00-HUL4-DRG-R-SG-330001	Location Plan
	151666-TRA-00-HUL4-DRG-R-SG-330002	Existing Plan
	151666-TRA-00-HUL4-DRG-R-SG-330003	Existing Elevations
	151666-TRA-00-HUL4-DRG-R-SG-330004	Existing Sections
<b>Austhorpe Lane (HUL4/21)</b>	151666-TRA-00-HUL4-DRG-R-SG-310001	Location Plan
	151666-TRA-00-HUL4-DRG-R-SG-310002	Proposed Plan
	151666-TRA-00-HUL4-DRG-R-SG-310003	Elevations West
	151666-TRA-00-HUL4-DRG-R-SG-310004	Elevations East
	151666-TRA-00-HUL4-DRG-R-SG-310005	Proposed Sections
	151666-TRA-00-HUL4-DRG-R-SG-310006	Existing Sections

**Ridge Road Overbridge (HUL4/14)**

5.1.3 Due to the position of the track in relation to the bridge structure, it is not possible to achieve the clearance required for the OLE. The AEOS has highlighted the need to remove the structure and replace with a new bridge. The proposal is to replace the bridge with a feature structure of stone and weathered steel.

5.1.4 The design of the bridge is intended to repeat the basket arch profile of the historic structure with a new weathered steel arch at a higher level. This will be attached to stone abutments, replacing the existing stonework. The parapet will also be of stone, but requires heightening to 1.5m in line with

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Network rail Standards. The current parapet is 1m; therefore it will be heightened using stone taken from elsewhere along the route (notably Brady Farm bridge). The parapet will also require widening due to the need for a strengthened concrete core. The current width is 0.41m which will be widened to 0.55m and faced in the existing/ reclaimed stone.

**Brady Farm Bridge (HUL4/15)**

- 5.1.5 As with Ridge Road Overbridge, it is not possible to achieve the necessary clearance required at Brady Farm Bridge. There is, therefore, a need to remove the structure. The bridge is no longer in use and it is not proposed to replace the structure.
- 5.1.6 It is proposed to re-use the stone from Brady Farm bridge within other interventions along the Scheme.

**Austhorpe Lane (HUL4/21)**

- 5.1.7 Due to the position of the track in relation to the bridge structure, it is not possible to achieve the clearance required for the OLE. The AEOS has highlighted the need to remove the structure and replace with a new bridge. The proposal is to replace the bridge with a feature structure of stone and weathered steel.
- 5.1.8 The design of the bridge will be the same as that employed at Ridge Road (HUL4/14) and will repeat the basket arch profile of the historic structure with a new weathered steel arch at a higher level. This will be attached to stone abutments, replacing the existing stonework. The parapet will also be of stone, using the stonework taken from the historic structure. The parapet will be heightened and widened using reclaimed stone taken from elsewhere along the route (notably Brady Farm bridge).
- 5.1.9 The bridge will be wider than the present structure in order to accommodate two lanes of traffic and an integrated footpath. This is proposed to improve highway safety at Austhorpe Lane. The integration of the footpath will also remove the need for a separate footbridge; therefore, the new bridge will not be obscured from the railway creating an improved aesthetic. The adjacent High Pressure gas pipe will also be removed and re-siting below the railway.

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**6. IMPACT OF PROPOSALS****6.1 Impacts to Heritage Assets**Designated Assets

- 6.1.1 Ridge Road Overbridge (HUL4/14), Brady Farm Overbridge (HUL4/15) and Austhorpe Lane Overbridge (HUL4/21) are designated grade II listed buildings and form part of the Leeds and Selby railway, constructed in the 1830s. They represent three of 13 of the basket arch bridges which survive along the route.
- 6.1.2 The three bridges will be removed as part of the scheme. This will result in total loss of significance and, therefore, substantial harm in terms of the NPPF. Two of the bridges (Roman Ridge Road (HUL4/14) and Austhorpe Lane (HUL4/21)) will be replaced with a modern feature structure which is sympathetic to its location, with the design using the unusual arch design seen in the historic structures, while using modern materials to reveal their modern intervention. The additional height of the abutments and parapets, required as a result of increased safety needs associated with electrification, will be gained through the re-use of stone taken from Brady Farm (HUL4/15). It is not proposed to replace Brady Farm Overbridge. This will continue the aesthetic of the historic bridge, particularly from deck level. Therefore, when viewed from the highway, the bridge will continue to be read as an historic feature.

Group Value – The Leeds and Selby Railway

- 6.1.3 The Selby and Leeds Railway represents an early example of railways in Britain and, as such, has inherent interest as a heritage asset in its own right. This interest is enhanced by the survival of features along the route, many displaying innovation in engineering, while harnessing the local vernacular in materials. The route will be affected by the loss of three basket arch bridges (Roman Ridge Road HUL4/14, Brady Farm HUL4/15 and Austhorpe Lane HUL4/21). The loss of the bridges is considered to harm the asset as a whole.
- 6.1.4 The Scheme has been designed to limit the loss of the original basket arch structures, with only three of the 13 extant examples within the project area being removed. Two of these will be replaced with new bridges using good design principles, as advocated by the NPPF (section 12), which fit in with the overall form and layout of their surroundings by harnessing the original form of the arch. The same design will be used for both structures to create a unifying aesthetic. While this does not reduce the harm caused, it does provide a design that responds to the historic environment. On the railway itself, the harm will be less than substantial with the retention of ten bridges enabling the appreciation of James Walker's unusual design and the

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understanding of their original intention for a four track railway, balanced alongside the use of good design principles.

**6.2 Mitigation and Compensation**

6.2.1 The proposals for Roman Ridge Road (HUL4/14), Brady Farm (HU4/15) and Austhorpe Lane (HUL4/21) have been formulated as part of an iterative design process including engineering alternatives and design development. Additional details regarding this process are included in section 7.1 above.

6.2.2 Embedded mitigation includes the following specific design measures:

- The adoption of a bespoke new feature structure which take cues from the key historic characteristic of the listed structures;
- The adoption of a single design to create a cohesive aesthetic along the railway;
- The incorporation of stonework from the removed bridge to maintain the aesthetic of the retained historic elements, including the abutments and the parapets; and
- Repair works to be carried out to retained historic elements to secure future stability.

6.2.3 In addition to the embedded mitigation, compensation will also be secured through the archaeological recording of heritage assets affected, in agreement with the historic environment stakeholders. This would take the form of compensation for the harm caused by demolition or alteration, not mitigation. The level of recording will be consistent with the levels outlined in Historic England guidance.

6.2.4 Any historic fabric removed as part of the project, including stonework recovered during the demolition of Brady Farm Overbridge (HUL4/15), will be assessed for re-use elsewhere to ensure a consistency of materials. The priority will be for re-use at Ridge Road and Austhorpe Lane. Any remaining stone will be used for undertaking repairs within Project E2-4 as necessary. This will be secured through condition with materials agreed prior to parapet works being undertaken.

**6.3 Public Benefits**

6.3.1 The strategic benefits of the project are presented in the Statement of Aims (Document NR 04) which accompanies the TWAO application. In summary, TRU is an important commitment made by the Secretary of State for Transport that aims to create a better performing railway that passengers can depend on; one that provides more trains, more seats and creates a better-connected North. Specifically it will support the Government in providing a network which:

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- Provides the capacity and connectivity and resilience to support national and local economic activity and facilitate growth and create jobs;
  - supports and improves journey quality, reliability, and safety;
  - supports the delivery of environmental goals and the move to a low carbon economy; and
  - joins up our communities and link effectively to each other.
- 6.3.2 More locally, the Transpennine route is a key transport corridor for providing connections between cities (and Manchester Airport) in the North of England and its upgrade will support the delivery of economic growth and “levelling up” opportunities across the North of England.
- 6.3.3 The Scheme is a key contributor towards the delivery of the TRU and the full realisation of the aims of the overall TRU programme of works. The overall benefits of TRU will be:
- an improved journey time for Leeds – Manchester Victoria of 43-44 mins;
  - an improved journey time for York to Manchester Victoria of 67-69 mins;
  - performance of the Transpennine Route to be 92.5% or higher each period;
  - freight paths/rights to be retained as existing; and
  - a contribution to Network Rail’s Decarbonisation Strategy and climate policy.
- 6.3.4 The Scheme includes the construction of OLE to electrify the railway. This will assist in the decarbonisation of the railway network. Electrification also assists with journey time and performance by allowing trains to accelerate faster, and brake more efficiently. The project will improve the provision of public transport (rail) through the local area and across the region in the long term, due to the intended provision of longer, faster and more reliable rolling stock on the route, alongside the reduction in freight across the road network.
- 6.3.5 In section 4.9 of the Leeds City Council Core Strategy (2019) notes that the electrification of the Transpennine route is an important part of its sustainable transport plan.
- 6.3.6 The City Council ‘Connecting Leeds Transport Strategy’ states that “The Transpennine Route Upgrade will enhance connections to Huddersfield and Manchester, providing reliable connections and quicker services.” The delivery of the TRU is a major element of the West Yorkshire Combined Authorities Transport Strategy 2040.
- 6.3.7 Significant residual beneficial effects arising from the operation of the wider TRU have been previously identified in the approved Huddersfield-Westtown

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TWA Order Inquiry from December 2021, recognising the improved journey times, reliability, and capacity at the Local Authority area and in turn the sub-regional and regional level. These improvements will bring direct significant benefits to local businesses and the labour market through improved access to the local regions.

6.3.8 As part of the TRU Programme, the TWAO for Huddersfield to Westtown Improvements was approved by the Secretary of State in November 2022. The TWAO had nine Listed Building Consents all of which were approved. The Inspector noted in their report that ‘I find that, although the proposals would result in harm to a number of designated heritage assets, the tests set in paragraphs 200 to 202 of the NPPF are met, in that that harm would clearly be outweighed by the public benefits of the Scheme’. In those cases where there would be substantial harm to the significance of two Listed Buildings, I find that the harm to the heritage assets is necessary to achieve those public benefits.’

6.3.9 The Inspector commented further on the public benefits outweighing the harm ‘As set out earlier in this report, the pressing need for the Scheme has been clearly demonstrated and the public benefits that would flow from its implementation are substantial [3.37, 8.88]. These benefits would include a number of heritage and other benefits that would be secured through the interventions to the designated assets [3.136, 3.140, 3.147, 3.164, 3.187, 3.193].’

## 7. CONCLUSIONS

7.1.1 The TRU project will bring benefits to the transport network in the form of faster and more energy efficient trains and will contribute to the UK Government’s climate change targets. To facilitate this, works are required to the historic railway network, including physical works to a number of designated structures. Works to Roman Ridge Road (HUL4/14), Brady Farm (HUL4/15) and Austhorpe Lane (HUL4/21) fall within these required works and are essential in achieving the proposed electrification of the route. Without works to the listed structure then the TRU Programme cannot be delivered and the benefits of the TRU Programme will not be realised.

7.1.2 The Transpennine route has evolved from an historic network of railways, principally the Leeds to Selby Railway which was conceived and built in the 1830s. It was constructed at the start of the Railway Age, conceived prior to the completion of the Liverpool and Manchester Railway. Being completed prior to the railway mania of the 1840s and 50s, it represents a significant heritage asset in its own right. Its significance is increased by the involvement

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of pioneering railway engineers including James Walker, responsible for designing many of the structures along the route.

- 7.1.3 However, the route was designed to accommodate the technology of the time and is unable to accommodate the required upgrades. The upgrades are required to improve journey times and capacity between key destinations, to improve overall reliability and resilience, and deliver environmental benefits from both a modal shift to rail and the part electrification of the Transpennine route.
- 7.1.4 Where harm will be caused to designated assets, a process of optioneering has been undertaken. This considered options which did not physically impact on the assets. This included deviations from current Network Rail standards which limited the number of structures affected. As a result, four Grade II listed structures have been identified as presenting engineering challenges and line possessions which could not be accommodated. These are Roman Ridge Road Overbridge (HUL4/14), Brady Farm Overbridge (HUL4/15), Crawshaw Woods (HUL4/20 – subject of a separate Heritage Statement) and Austhorpe Lane Overbridge (HUL4/21). A number of options were then considered to limit the harm caused to the structures; however, it was concluded that total removal was necessary for three of the listed structures
- 7.1.5 The removal a listed structure constitutes total loss of significance and thus substantial harm to a designated asset in terms of the NPPF. Compensation has been incorporated through the design of the new structures for both Ridge Road Overbridge (HUL4/14) and Austhorpe Lane Overbridge (HUL4/21). These designs have evolved through a collaborative process involving designers, engineers, heritage professionals and statutory bodies. Brady Farm Overbridge (HUL4/15) will not be reconstructed as part of the scheme. The bridge is currently redundant and no longer accommodates its original function. The loss of the bridge will be offset by the re-use of the stone elsewhere within the scheme and the cost benefit enabling a bespoke design at Roman Ridge Road and Austhorpe Lane .
- 7.1.6 The scheme will also impact on the group value of the Leeds to Selby Railway. The number of structures removed or altered by the scheme has been limited through the design process. The remaining 13 bridges (of which eleven are Grade II listed) will remain unaltered and will retain the cohesion of the James Walker structures. In addition, the upgrades along the line will not adversely affect the ability to understand and appreciate the historic and architectural interest of the railway as a heritage asset in its own right.
- 7.1.7 In accordance with Local Plan policy, it is considered that the exceptional circumstances required under Policy N14 do apply and that consent for

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demolition is justified. In addition, it is considered that Policy N13 has also been satisfied and that the new design of the bridges is of high quality and has due regard to the character and appearance of their surroundings.

- 7.1.8 In accordance with the NPPF it is necessary for the project to ‘achieve substantial public benefits that outweigh that harm or loss’ (paragraph 195). The substantial harm caused to the listed bridges will, therefore, be outweighed against the substantial public benefits delivered by TRU which have been recognised at public inquiry by the Huddersfield to Westtown Inspector and confirmed by the Secretary of State for Transport.

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APPENDICES

**APPENDIX A – LISTING DESCRIPTIONS**

Roman Ridge Road Bridge (HUL4/14)

Heritage Category: Listed Building

Grade: II

List Entry Number: 1419084

Date first listed: 05-Mar-2015

Location Description: Roman Ridge Road Bridge, Micklefield, Leeds, West Yorkshire. Located at NGR: SE 443072 432797.

District: Leeds (Metropolitan Authority)

Parish: Micklefield

District: Leeds (Metropolitan Authority)

Parish: Sturton Grange

National Grid Reference: SE4307232797

Summary

Railway basket arched overbridge, constructed for the Leeds & Selby Railway in 1830-2 to the designs of Walker & Burges; the contractors were Hamer & Pratt.

Reasons for Designation

Roman Ridge Road Bridge, HUL 4/14, of c1830-32 by James Walker of Walker & Burges for Leeds & Selby Railway, is listed at Grade II for the following principal reasons:

\* Historic interest: as an original overbridge built between 1830 and 1832 on the pioneering, first phase Leeds & Selby Railway;

\* Engineer: designed by James Walker, a renowned C19 engineer, who constructed the line with a four-track bed and distinctive, single-span overbridges with unprecedented spans of 60ft (18.2m);

\* Architectural interest: as a single-span, basket-arch bridge demonstrating a high level of craftsmanship in its construction, detailing, and dressing;

\* Intactness: the bridge is largely unaltered and retains its original curving parapets.

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## History

In the early C19 Leeds was a major textile manufacturing centre and needed a good transport connection to the sea for the import of raw wool and export of finished cloth. The pre-existing river and canal system to Hull was slow and expensive and a railway link from Leeds to Selby and then onwards to Hull was considered to have potential to improve the transport infrastructure, and could also benefit local coal mine and quarry owners.

In 1825 George Stephenson was asked to survey a possible route to Selby. However, financial uncertainties led to the project being postponed and Stephenson concentrated on the Liverpool & Manchester Railway instead. In 1829 the engineer James Walker was asked to review the Stephenson proposal. Walker (1781-1862) is best known for designing harbours, docks and lighthouses, having been appointed consulting engineer to Trinity House in 1825. However, he also played an important role in the early development of the railway system. In 1829 he went into partnership with his assistant, Alfred Burges (1797-1886, father of architect William Burges), though Burges does not appear to have been involved in Walker's railway projects. Having resurveyed the route Walker suggested some adjustments to enable the use of horse or locomotive power without the inclusion of inclined planes worked with stationary steam engines. The proposed route ran from Leeds to the River Ouse at Selby via Crossgates, Garforth and Milford, a distance of just over 19 miles. Walker also suggested that the plan put before Parliament allowed sufficient land to be purchased for the construction of a four track line. It was authorised by Parliament in 1830, four months before the pioneering Liverpool & Manchester Railway opened, and was fully opened by December 1834.

Walker acted as consulting engineer, and in common with other early railway builders, had a resident engineer for the day-to-day supervision and some of the detailed design, using Thomas Dyson, and, from 1832, George Smith. Nowell & Sons of Dewsbury and Homer & Pratt of Goole were the two contractors. The scale of the project was unusual because of the decision to provide four tracks. This resulted in a trackbed of 66ft (20.1m) rather than the typical two track line which had a trackbed of 30ft (9.1m); even Brunel designing for his broad-gauge track used that dimension. The extra width gave the railway a quite different character from the simple lines and waggonways that had preceded it. The most distinctive characteristic of the line was the design for the overbridges, which had to span the four tracks rather than the usual two tracks. Walker did not use a twin-span bridge, but designed a bridge with a single, basket arch (three-centred arch where the height is less than half the span) and an unprecedented span of around 60ft (18.2m). In the event only a twin-track line was laid, and in many cases one side of the arch is obscured by the earth embankment. The bridges were built of stone with the exception of a brick underbridge at Barwick Road, Garforth, and two iron bridges, one of which survives at Crawshaw Woods.

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Roman Road Bridge was constructed in 1830-2; the engineer's construction reports show that there was a delay in construction as the original arch failed and had to be replaced.

Details

Railway basket arched overbridge, constructed for the Leeds & Selby Railway in 1830-2 to the designs of Walker & Burges; the contractors were Hamer & Pratt.

MATERIALS: sandstone and quarry-faced limestone.

PLAN: single-span with provision to accommodate four tracks.

One of a sequence of bridges designed by Walker & Burges for the Leeds & Selby Railway, which share a common design. The arch springs from a quarry-faced impost band and has stepped, rusticated and v-jointed ashlar voussoirs. The wing walls are straight. The parapet is set upon a square-moulded ashlar string course; the former has curving walls of large blocks dressed with distinctive, pronounced horizontal tooling with curved coping and similarly detailed oval piers characteristic of the line.

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Brady Farm Bridge (HUL4/15)

Heritage Category: Listed Building

Grade: II

List Entry Number: 1419091

Date first listed: 05-Mar-2015

Location Description: Brady Farm Bridge, Sturton Grange, Leeds, West Yorkshire. Located at NGR: SE 442188, 432894.

District: Leeds (Metropolitan Authority)

Parish: Sturton Grange

National Grid Reference: SE4221432891

Summary

Railway basket-arch overbridge, constructed for the Leeds & Selby Railway in 1832-3 to the designs of Walker & Burges; the contractors were Hamer & Pratt.

Reasons for Designation

Brady Farm Bridge, HUL 4-15, of c1832-3 by James Walker of Walker & Burges for Leeds & Selby Railway, is listed at Grade II for the following principal reasons:

- \* Historic interest: as an original overbridge built between 1830 and 1834 on the pioneering, first phase Leeds & Selby Railway;
- \* Engineer: designed by James Walker, a renowned C19 engineer, who constructed the line with a four-track bed and distinctive, single-span overbridges with unprecedented spans of 60ft (18.2m);
- \* Architectural interest: as a single-span, basket-arch bridge demonstrating a high level of craftsmanship in its construction, detailing, and dressing;
- \* Intactness: the bridge is largely unaltered and retains its original parapets.

History

In the early C19 Leeds was a major textile manufacturing centre and needed a good transport connection to the sea for the import of raw wool and export of finished cloth. The pre-existing river and canal system to Hull was slow and expensive and a railway link from Leeds to Selby and then onwards to Hull was considered to have potential to improve the transport infrastructure, and could also benefit local coal mine and quarry owners.

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*Heritage Assessment For Roman Ridge Road Bridge (HUL4/14), Brady Farm Bridge (HUL4/15) and Austhorpe Lane Bridge (HUL4/21)*

In 1825 George Stephenson was asked to survey a possible route to Selby. However, financial uncertainties led to the project being postponed and Stephenson concentrated on the Liverpool & Manchester Railway instead. In 1829 the engineer James Walker was asked to review the Stephenson proposal. Walker (1781-1862) is best known for designing harbours, docks and lighthouses, having been appointed consulting engineer to Trinity House in 1825. However, he also played an important role in the early development of the railway system. In 1829 he went into partnership with his assistant, Alfred Burges (1797-1886, father of architect William Burges), though Burges does not appear to have been involved in Walker's railway projects. Having resurveyed the route Walker suggested some adjustments to enable the use of horse or locomotive power without the inclusion of inclined planes worked with stationary steam engines. The proposed route ran from Leeds to the River Ouse at Selby via Crossgates, Garforth and Milford, a distance of just over 19 miles. Walker also suggested that the plan put before Parliament allowed sufficient land to be purchased for the construction of a four track line. It was authorised by Parliament in 1830, four months before the pioneering Liverpool & Manchester Railway opened, and was fully opened by December 1834.

Walker acted as consulting engineer, and in common with other early railway builders, had a resident engineer for the day-to-day supervision and some of the detailed design, using Thomas Dyson, and, from 1832, George Smith. Nowell & Sons of Dewsbury and Homer & Pratt of Goole were the two contractors. The scale of the project was unusual because of the decision to provide four tracks. This resulted in a trackbed of 66ft (20.1m) rather than the typical two track line which had a trackbed of 30ft (9.1m); even Brunel designing for his broad-gauge track used that dimension. The extra width gave the railway a quite different character from the simple lines and waggonways that had preceded it. The most distinctive characteristic of the line was the design for the overbridges, which had to span the four tracks rather than the usual two tracks. Walker did not use a twin-span bridge, but designed a bridge with a single, basket arch (three-centred arch where the height is less than half the span) and an unprecedented span of around 60ft (18.2m). In the event only a twin-track line was laid, and in many cases one side of the arch is obscured by the earth embankment. The bridges were built of stone with the exception of a brick underbridge at Barwick Road, Garforth, and two iron bridges, one of which survives at Crawshaw Woods.

Brady Farm Bridge was constructed in 1830-32; in the C20 metal railings were added to the low parapet.

#### Details

Railway basket-arch overbridge, constructed for the Leeds & Selby Railway in 1832-3 to the designs of Walker & Burges; the contractors were Hamer & Pratt.

Materials: sandstone ashlar with squared and coursed quarry-faced limestone.

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Plan: single-span with provision to accommodate four tracks

One of a sequence of bridges on the Leeds & Selby Railway which share a common design. The wide arch springs from an impost band and has stepped, rusticated and v-jointed ashlar voussoirs. The bridge has straight wing walls and the parapet is set upon a square-moulded ashlar string course. The low parapet walls have distinctive, pronounced horizontal tooling and terminate in similarly detailed oval piers, that are characteristic of the line.

Exclusions: Pursuant to s.1 (5A) of the Planning (Listed Buildings and Conservation Areas) Act 1990 ('the Act') it is declared that the C20 metal railings fastened to the stonework of the original parapets are not of special architectural or historic interest.

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Austhorpe Lane Bridge (HUL4/21)

Heritage Category: Listed Building

Grade: II

List Entry Number: 1419065

Date first listed: 05-Mar-2015

Location Description: Austhorpe Lane Bridge, HUL4/21, Cross Gates, Leeds

District: Leeds (Metropolitan Authority)

Parish: Non Civil Parish

National Grid Reference: SE3681834503

Summary

Railway basket arch overbridge, c1830-34 by James Walker of Walker & Burges for Leeds & Selby Railway.

Reasons for Designation

Austhorpe Lane Bridge, HUL 4-21, of c1830-34 by James Walker of Walker & Burges for Leeds & Selby Railway, is listed at Grade II for the following principal reasons:

- \* Historic interest: as an original overbridge built between 1830 and 1834 on the pioneering, first phase Leeds & Selby Railway;
- \* Engineer: designed by James Walker, a renowned C19 engineer, who constructed the line with a four-track bed and distinctive, single-span overbridges with unprecedented spans of 60ft (18.2m) rather than the standard 30ft (9.1m) span and twin-span bridges used by other early and later railway engineers;
- \* Architectural interest: as a single-span, basket-arch bridge demonstrating a high level of craftsmanship in its construction, detailing, and dressing;
- \* Intactness: the bridge is largely unaltered and retains its original parapets;
- \* Group value: the bridge is architecturally inter-related to the other c1830-34 stone bridges on the Leeds & Selby Railway designed by James Walker, sharing distinctive characteristics such as the use of single-span basket arches, stepped voussoirs, and oval piers to the horizontally-tooled parapets.

History

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In the early C19 Leeds was a major textile manufacturing centre and needed a good transport connection to the sea for the import of raw wool and export of finished cloth. The pre-existing river and canal system to Hull was slow and expensive and a railway link from Leeds to Selby and then onwards to Hull was considered to have potential to improve the transport infrastructure, and could also benefit local coal mine and quarry owners.

In 1825 George Stephenson was asked to survey a possible route to Selby. However, financial uncertainties led to the project being postponed and Stephenson concentrated on the Liverpool & Manchester Railway instead. In 1829 the engineer James Walker was asked to review the Stephenson proposal. Walker (1781-1862) is best known for designing harbours, docks and lighthouses, having been appointed consulting engineer to Trinity House in 1825. However, he also played an important role in the early development of the railway system. In 1829 he went into partnership with his assistant, Alfred Burges (1797-1886, father of architect William Burges), though Burges does not appear to have been involved in Walker's railway projects. Having resurveyed the route Walker suggested some adjustments to enable the use of horse or locomotive power without the inclusion of inclined planes worked with stationary steam engines. The proposed route ran from Leeds to the River Ouse at Selby via Crossgates, Garforth and Milford, a distance of just over 19 miles. Walker also suggested that the plan put before Parliament allowed sufficient land to be purchased for the construction of a four track line. It was authorised by Parliament in 1830, four months before the pioneering Liverpool & Manchester Railway opened, and was fully opened by December 1834.

Walker acted as consulting engineer, and in common with other early railway builders, had a resident engineer for the day-to-day supervision and some of the detailed design, using Thomas Dyson, and, from 1832, George Smith. Nowell & Sons of Dewsbury and Homer & Pratt of Goole were the two contractors. The scale of the project was unusual because of the decision to provide four tracks. This resulted in a trackbed of 66ft (20.1m) rather than the typical two track line which had a trackbed of 30ft (9.1m); even Brunel designing for his broad-gauge track used that dimension. The extra width gave the railway a quite different character from the simple lines and waggonways that had preceded it. The most distinctive characteristic of the line was the design for the overbridges, which had to span the four tracks rather than the usual two tracks. Walker did not use a twin-span bridge, but designed a bridge with a single, basket arch (three-centred arch where the height is less than half the span) and an unprecedented span of around 60ft (18.2m). In the event only a twin-track line was laid, and in many cases one side of the arch is obscured by the earth embankment. The bridges were built of stone with the exception of a brick underbridge at Barwick Road, Garforth, and two iron bridges, one of which survives at Crawshaw Woods.

Austhorpe Lane Bridge is an overbridge built by the contractors Hamer & Pratt of Goole. The bridge carries Austhorpe Lane over the railway bed which was constructed

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to accommodate four tracks. The west face of the bridge was obscured by a separate concrete and steel footbridge constructed immediately adjacent in 1961.

**Details**

Railway basket arch overbridge, c1830-34 by James Walker of Walker & Burges for Leeds & Selby Railway.

Materials: Sandstone ashlar and Bramley Fall gritstone.

Plan: single-span carrying a road over the railway which has provision to accommodate four tracks.

One of a sequence of bridges on the Leeds & Selby Railway which share a common design. The bridge is built of squared, coursed and tooled stone blocks. The basket arch of Bramley Fall gritstone has stepped, tooled and inscribed, v-jointed voussoirs springing from a wide, horizontally-tooled impost band. The arch soffit is constructed of large, stone blocks. The outer walls of the abutments and wing walls are formed of long, narrow blocks of tooled, v-jointed sandstone ashlar, now weathered. The inner abutment walls are heavily tooled with v-joints. The parapets are of larger blocks of Bramley Fall gritstone with pronounced horizontal tooling and terminate in characteristic oval piers. They are set on square-cut, tooled and inscribed string courses and have asymmetrically-curved coping with horizontal tooling.

Exclusions: the west face of the bridge has been obscured by a separate concrete and steel footbridge constructed immediately adjacent in 1961. This later bridge is not of special interest and the structure is excluded from the listing.