



## TRANSPORT AND WORKS ACT 1992

### Transport and Works (Applications and Objections Procedure) (England and Wales) Rules 2006

### THE NETWORK RAIL (LEEDS TO MICKLEFIELD ENHANCEMENTS) ORDER

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## DOCUMENT NR15: DESIGN AND ACCESS STATEMENT

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**The Network Rail (Leeds to Micklefield Enhancements) Order**

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**The Network Rail (Leeds to Micklefield Enhancements) Order***Document NR15 – Design and Access Statement**July 2023***LIST OF ABBREVIATIONS**

ALA	Acquisition of Land Act 1981
BMV	Best and Most Versatile
EIA	Environmental Impact Assessment
HUL4	Engineers line reference for Hull Line (Leeds to Hill), Micklefield to Leeds City Station, used to identify structures and mileages
NPPF	National Planning Policy Framework
O(H)LE	Overhead line equipment
PRoW	Public Right of Way
TRU	Transpennine Route Upgrade
TSC	Track Sectioning Cabinet
TWAO	Transport and Works Act Order

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### **1. INTRODUCTION**

#### **1.1 Transpennine Route Upgrade**

- 1.1.1 The Transpennine Route Upgrade (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 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.
- 1.1.3 The TRU programme involves a variety of works including: the electrification of the railway (installation of overhead line equipment (O(H)LE) and associated infrastructure); removal, re-modelling and replacement of bridges and structures to accommodate O(H)LE, track and signalling upgrades; and structural strengthening works. Much of these works will take place within the operational railway corridor and will benefit from permitted development rights under the Town and Country Planning (General Permitted Development) (England) Order 2015 (GPDO) and therefore do not require planning permission under the Town and Country Planning Act 1990. Where level crossings are affected by the improved services proposed, TRU also involves level crossing closures and, where necessary, their replacement by safer alternatives.

#### **1.2 The proposed Network Rail (Leeds to Micklefield Enhancements) Transport and Works Act Order**

- 1.1.4 The proposed Network Rail (Leeds to Micklefield Enhancements) Transport and Works Act Order (TWAo) (‘the Leeds to Micklefield Enhancements Order’) forms part of the wider TRU programme.
- 1.1.5 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.
- 1.1.6 These works and associated land uses are proposed to be authorised by the Leeds to Micklefield Enhancements Order. Collectively these works and land uses are referred to as the Leeds to Micklefield Enhancements Order Scheme (‘the Scheme’).



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- 1.1.7 The Leeds to Micklefield Enhancements 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 (PRoW), environmental consents, closure of the level crossings and powers to alter public highways and to undertake street works.
- 1.1.8 The Scheme consists of twenty-one elements. This Design and Access Statement focuses only on those elements requiring deemed planning permission (**'the Scheme Development'**) for built development work where planning policy on design and access is relevant, as summarised in Table 1.

**Table 1 List of Leeds to Micklefield Enhancements Order Scheme elements**

<b>Leeds to Micklefield Enhancements Order Scheme Element</b>	<b>Deemed planning permission required for built works where design and access policy is applicable?</b>
Austhorpe Lane Gas Main Diversion	Yes
Replacement Austhorpe Lane Bridge	Yes
Austhorpe Lane Northwest and Southeast Compounds	No
Works to Raise Crawshaw Woods Bridge	Yes
Crawshaw Woods Bridge North and South Compounds	No
New Barrowby Lane Bridge	Yes
Ridge Road Gas Main Diversion	Yes
Replacement Ridge Road Bridge	Yes
Micklefield TSC	Yes (design only)
Peckfield Level Crossing Closure	Yes
Kirkgate to Marsh Lane Land	Yes (design only)
Kirkgate Compound and Kirkgate Construction Land	No
Marsh Lane Compound and Marsh Lane Construction Land	No
Manston Lane Compound	No
Brady Farm Bridge Compound	No
Phoenix Avenue Compound	No
Garforth Moor Level Crossing Closure	No
Highroyds Wood Level Crossing Closure	No
Neville Hill Access Land	No
Osmondthorpe Lane Compound	No
Wykebeck Avenue Compound	No

- 1.1.9 Further details of each Scheme Development element covered by this Design and Access Statement are provided in section 2.
- 1.1.10 Pursuant to Rule 10(6) of the Application 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

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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 Leeds to Micklefield Enhancements Order, subject to any conditions.

- 1.1.11 The Scheme includes works to four Grade II Listed bridges. Applications are required for listed building consent (**LBC**) for works to listed bridges. The applications do not form part of the Leeds to Micklefield Enhancements Order but will be submitted and determined concurrently with the TWAO application.

**1.3 TWAO submission documents**

- 1.1.12 This Design and Access Statement is one of a suite of supporting documents for this TWAO application and should be read in conjunction with these, in particular the Request for Deemed Planning Permission and Statement of Proposed Conditions (NR12), the Statement of Aims (NR04), the Consultation Summary Report (NR07), the Planning Statement (NR13) the Environmental Report (NR16) and Network Rail Code of Construction Practice (NR17). At the time of submission, the following documents make up the TWAO Application for the Scheme Development:

1. NR 01 Application Letter.
2. NR 02 Draft Order.
3. NR 03 Explanatory Memorandum explaining the purpose and effect of each article in the draft Order.
4. NR 04 Statement of Aims.
5. NR 05 Funding Statement.
6. NR 06 Estimate of Costs.
7. NR 07 Consultation Summary Report.
8. NR 08 Book of Reference.
9. NR 09 Works & Land Plans.
10. NR 10 EIA Screening Report.
11. NR 11 Rule 18 Waiver.
12. NR 12 Request for Deemed Planning Permission and Statement of Proposed Conditions.
13. NR 13 Planning Statement.
14. NR 14 Planning Drawings.
15. NR 15 Design and Access Statement.
16. NR 16 Environmental Report.
17. NR 17 Network Rail Code of Construction Practice.

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### **18. NR18 List of Consents, permission or licences under other enactments**

## **1.4 Purpose and structure of this Design and Access Statement**

1.1.13 The purpose of this Design and Access Statement is to describe the design and access rationale of the proposed interventions within the Scheme Development, including a review of the design principles and functional needs of the development and how planning policy and feedback from consultation has informed the design of the Scheme Development and the approach to matters of access.

1.1.14 The remainder of this Design and Access Statement is structured as follows.

**Section 2** sets out full details of the Scheme Development context, including site and local context.

**Section 3** sets out national and local planning policies relevant to design and access matters.

**Section 4** presents an overview of options development and consultation and sets out the main consultation responses relevant to design and access.

**Section 5** sets out relevant sustainability principles and how the sustainability performance of the Scheme Development has been an active consideration in design development.

**Section 6** summarises the main applicable design and access principles based on the preceding review of relevant policy.

**Sections 7-10** present a design and access appraisal, covering general design principles, use, amount and scale, layout, access and appearance and landscaping.

**Section 11** presents concluding comments on compliance of the Scheme Development with relevant design and access policy.

**The Network Rail (Leeds to Micklefield Enhancements) Order***Document NR15 – Design and Access Statement**July 2023***2. SCHEME DEVELOPMENT CONTEXT****2.1 The relevant Scheme works**

- 2.1.1 This Design & Access Statement covers the Scheme Development, i.e., those elements of the Scheme requiring deemed planning permission for built development work where planning policy on design and access is relevant, as listed in Table 1, located as illustrated in Figure 1 and summarised below.

**Replacement Austhorpe Lane Bridge**

- 2.1.2 Demolition of the Grade II listed public highway Austhorpe Lane Overbridge (HUL4/21) and Austhorpe Lane Footbridge (HUL4/21A) and the construction of a new dual-purpose overbridge (the **'Replacement Austhorpe Lane Bridge'**) incorporating a two-lane carriageway highway (5.5 metres) and 2-metre footway on the western side. The structure will be reinstated with parapets about 0.4m higher than the current and overall bridge height from track level (including parapets) about 0.9m higher than current.
- 2.1.3 The **Replacement Austhorpe Lane Bridge** is adjacent to an existing a Gas Main Pipe Bridge (HUL4/20B) the underground diversion of which is included in the Scheme, but this **'Austhorpe Lane Gas Main Diversion'** is not considered further in this Design & Access Statement as design and access policies are not relevant.

**Works to Raise Crawshaw Woods Bridge**

- 2.1.4 Works to partially dismantle and reinstate the Grade II Listed Crawshaw Woods Overbridge (HUL4/20) in an elevated position to allow sufficient headroom for the installation of O(H)LE (the **'Works to Raise Crawshaw Woods Bridge'**). The structure will be reinstated with parapets about 0.2m higher than the current and overall bridge height from track level (including parapets) about 1.4m higher than current.

**Replacement Ridge Road Bridge**

- 2.1.5 Demolition of the Grade II Listed public highway Ridge Road Overbridge (HUL4/14) and the construction of a new overbridge (the **'Replacement Ridge Road Bridge'**) incorporating re-alignment of existing highway. The structure will be reinstated with parapets about 1.0m higher than the current and overall bridge height from track level (including parapets) about 0.9m higher than current.

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- 2.1.6 The **Replacement Ridge Road Bridge** is adjacent to an existing a Gas Main Pipe Bridge (HUL4/15) the underground diversion of which is included in the Scheme, but this '**Ridge Road Gas Main Diversion**' is not considered further in this Design & Access Statement as design and access policies are not relevant.

### **New Barrowby Lane Bridge**

- 2.1.7 The construction of a ramped bridleway bridge at Barrowby Lane (the '**New Barrowby Lane Bridge**'), and '**New Access Tracks to New Barrowby Lane Bridge**' to replace the closed Barrowby Lane and Barrowby Foot level crossings.

### **Peckfield Level Crossing Closure**

- 2.1.8 Works for the closure of **Peckfield Level Crossing** and construction of Public Right of Way diversion (Micklefield 8) (the '**Peckfield Level Crossing Closure**') with associated highways improvement and parking works ('**The Lower Peckfield Lane Highway Works**') including the associated acquisition of land.

### **Micklefield TSC**

- 2.1.9 The construction of a Track Sectioning Cabinet (TSC) (the '**Micklefield TSC**') on land off Phoenix Avenue, Micklefield. Access policy is not relevant to this element of the Leeds to Micklefield Enhancements Order as the TSC will not be publicly accessible.

### **Kirkgate to Marsh Lane Land**

- 2.1.10 The installation of small-scale electrification and signalling infrastructure mounted on metal staging structures between **Kirkgate Viaduct (HUL4/47)** and **Marsh Lane Viaduct (HUL4/44)** at Penny Pocket Park in Leeds City Centre (the '**Kirkgate to Marsh Lane Land**'). Access policy is not relevant to this element of the Leeds to Micklefield Enhancements Order as the infrastructure will not be publicly accessible.

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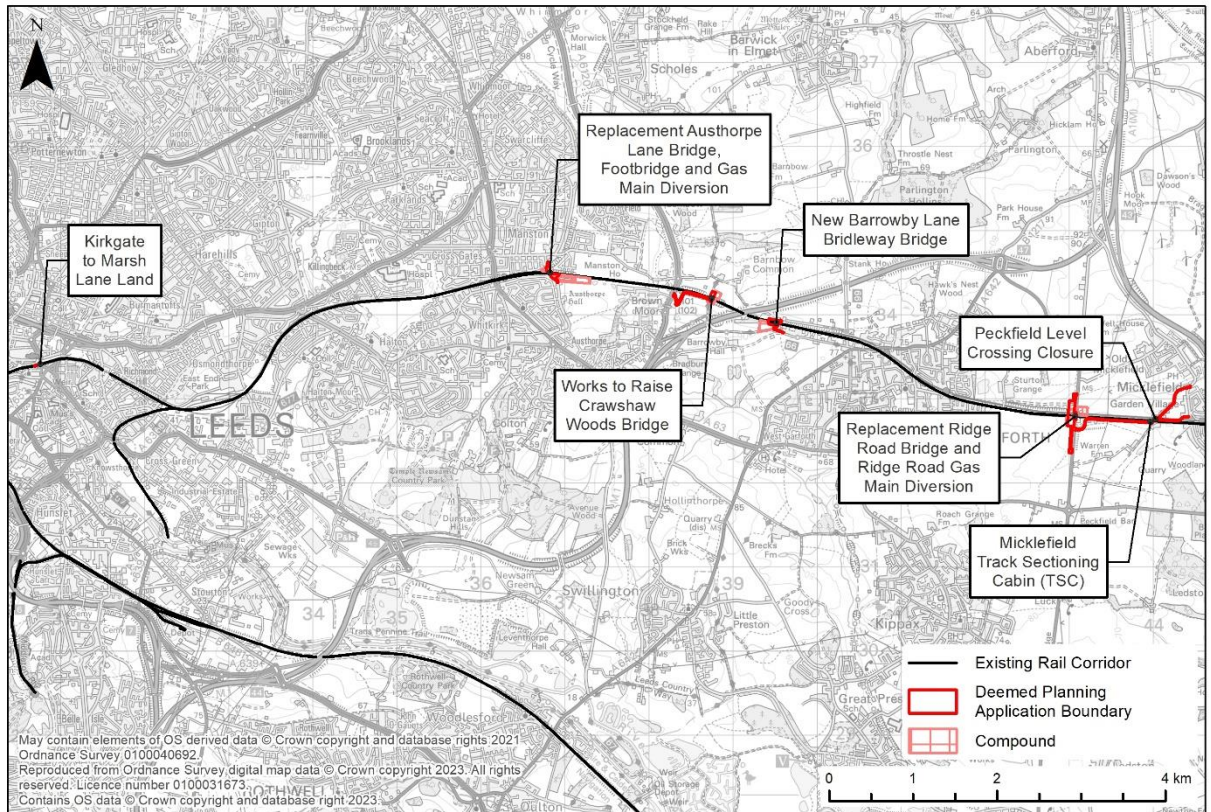


Figure 1: Location of Scheme Development elements from Leeds to Micklefield

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### 2.2 The Scheme Development elements design context

- 2.2.1 This section describes, for each of the relevant Scheme Development elements, the location of the element and its design context.
- 2.2.2 All parts of the Scheme Development are located within the metropolitan borough of the City of Leeds, West Yorkshire along the railway between central Leeds at the western end and Peckfield Level Crossing near Micklefield at the eastern end.

#### Replacement Austhorpe Lane Bridge

- 2.2.3 The Replacement Austhorpe Lane Bridge works incorporate a replacement for Austhorpe Lane Overbridge (HUL/21) and Austhorpe Lane Footbridge (HUL4/21A).

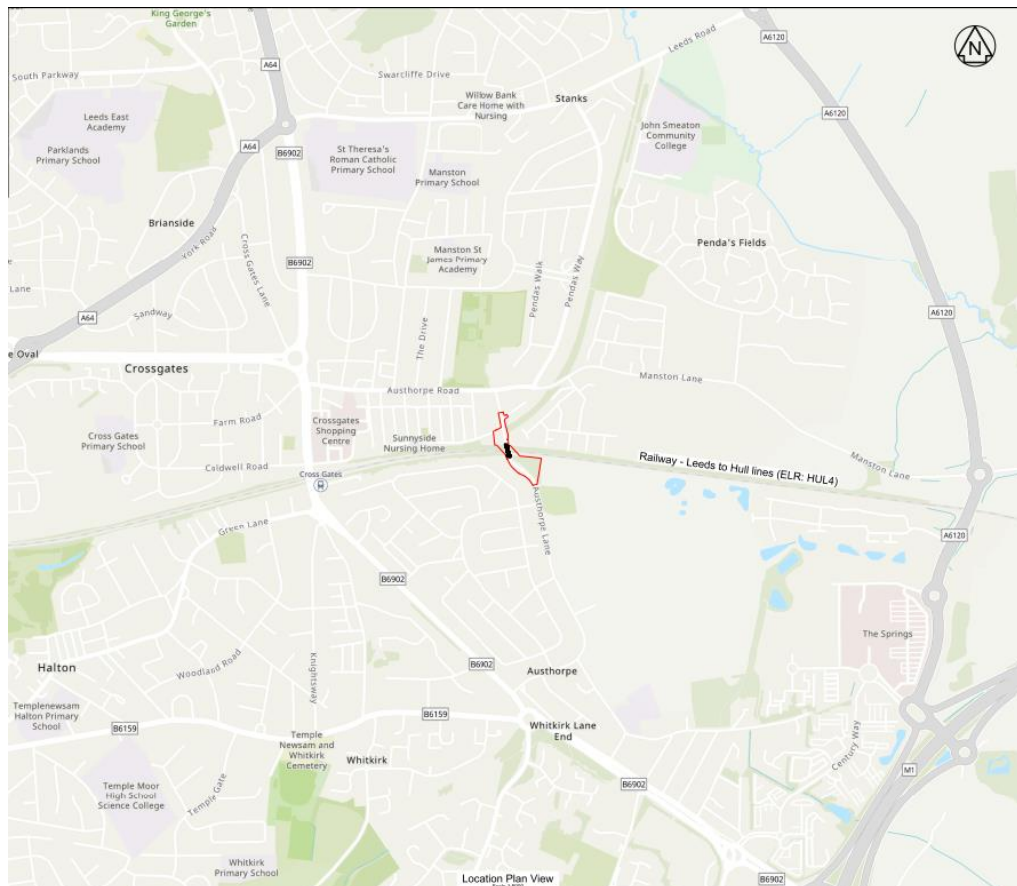


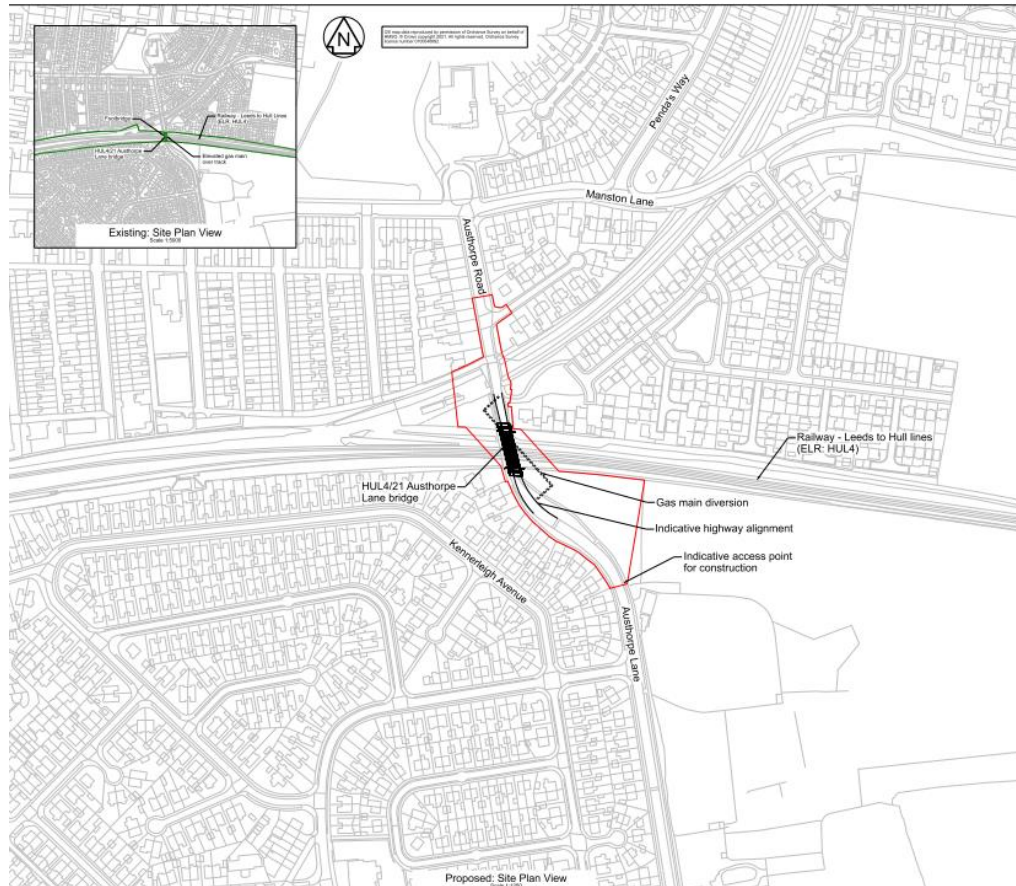
Figure 2: Location of Austhorpe Lane Overbridge and Footbridge



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**Figure 3: Site layout plan of Austhorpe Lane Overbridge and adjacent Footbridge**

- 2.2.4 Austhorpe Lane Overbridge carries the B-class public highway over the Leeds to Micklefield railway and is located 0.6km east of Cross Gates Railway Station (see Figure 2 and 3), within the metropolitan borough of the City of Leeds, West Yorkshire. It is a Grade II Listed structure and a single carriageway public highway. Austhorpe Lane Overbridge is a single basket arch (a shallow-curved arch) structure constructed from sandstone and quarry faced limestone. The arch itself has stepped V-jointed stones and the parapet above continues the quarry faced limestone dressed with horizontal tooling, topped with rounded coping (top) stones and oval piers.
- 2.2.5 Austhorpe Lane Footbridge runs immediately adjacent and parallel to the road bridge on the western side of the bridge and is a Public Right of Way (PRoW).
- 2.2.6 A Gas Main Pipe Bridge is a high-pressure gas main attached to Austhorpe Lane Overbridge on the eastern side of the bridge, connecting into the buried gas main system either side of the bridge.



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- 2.2.7 Austhorpe Lane Overbridge is located adjacent to residential areas to the north-east and south-west (Figure 4). The Replacement Austhorpe Lane Bridge works involve demolishing the Austhorpe Lane Overbridge and building the Replacement Austhorpe Lane Bridge on a similar alignment to tie-in to the highway. Land to the northwest of the Bridge currently comprises business storage and paddock use, beyond this site to the north are residential streets. Land to the southeast of the Bridge is an area of woods and open scrub land that is designated in the development plan as Green Space (Policy N1), beyond which is a sports ground further to the southeast.



**Figure 4 Aerial view of Austhorpe Lane Overbridge, Footbridge, and Gas Main Bridge**

- 2.2.8 Due to the design of the Austhorpe Lane Overbridge and the surrounding context, the bridge is mainly visible from short distance views from the north and the south on Austhorpe Lane, from properties to the northeast and southwest and pedestrians/vehicles passing over the bridge.
- 2.2.9 The Austhorpe Lane Overbridge is located close to a Public Right of Way, Definitive Footpath Leeds City 25, northwest of the Bridge, meaning that the Bridge is also visible from this PRow.
- 2.2.10 There are two approved planning permissions in close to the location of the Replacement Austhorpe Lane Bridge.
- 18/06161/FU for the installation of two storage containers, one shed, one portaloo, three solar panels and one wind turbine. This is located on the parcel of land off Austhorpe Road,

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immediately to the northwest of the Replacement Austhorpe Lane Bridge, which is to be used as a compound for the works. Via discussion with the landowner, the existing use of this land has been taken into account in the development of compound plans.

- 19/9/00008/MOD for 129 houses and 19 flats non-material amendment to 11/02315/RM. Construction of this planning permission has been completed. This application is on land northeast of the site, off Austhorpe Road, therefore it is not considered that the proposed works will have an impact on, nor affect, the dwellings constructed through this planning permission.

2.2.11 The Replacement Austhorpe Lane Bridge is near two relevant site allocations:

- HG2-120, Manston Lane – residential allocation for 450 units directly northeast of the Replacement Austhorpe Lane Bridge. The western section of this site, closest to the Replacement Austhorpe Lane Bridge, has been developed. Some of the properties closest to the Replacement Austhorpe Lane Bridge are likely to have a view of the bridge.
- G1913, Austhorpe Lane – designated Green Space directly southeast of the Replacement Austhorpe Lane Bridge. The north-western corner of this allocation is proposed for a temporary compound and area required for diverting the underground gas main.

**Works to Raise Crawshaw Woods Bridge**

2.2.12 Crawshaw Woods Bridge is located approximately 2.5km east of Cross Gates Railway Station and 0.3km to the north of the M1 motorway, within the metropolitan borough of the City of Leeds, West Yorkshire. It is a Grade II Listed structure with private vehicle rights and a PRow footpath running over it. Figures 5 and 6 show its location.

2.2.13 Crawshaw Woods Bridge is constructed from cast iron with sandstone and quarry faced limestone abutments. The arch is formed by cast iron arched girders with vertical struts. It is braced by X-section and I-section ties which support the cast iron deck. The stone wing walls are topped by moulded string courses with curved stone piers. The parapets are of wrought iron and plain in execution, being simple closely spaced balustrades. A new deck was added above the original in the 1940s, itself replaced with the present deck in the 1970s. Sheet steel parapets were also added inside the iron railings in the 1990s.

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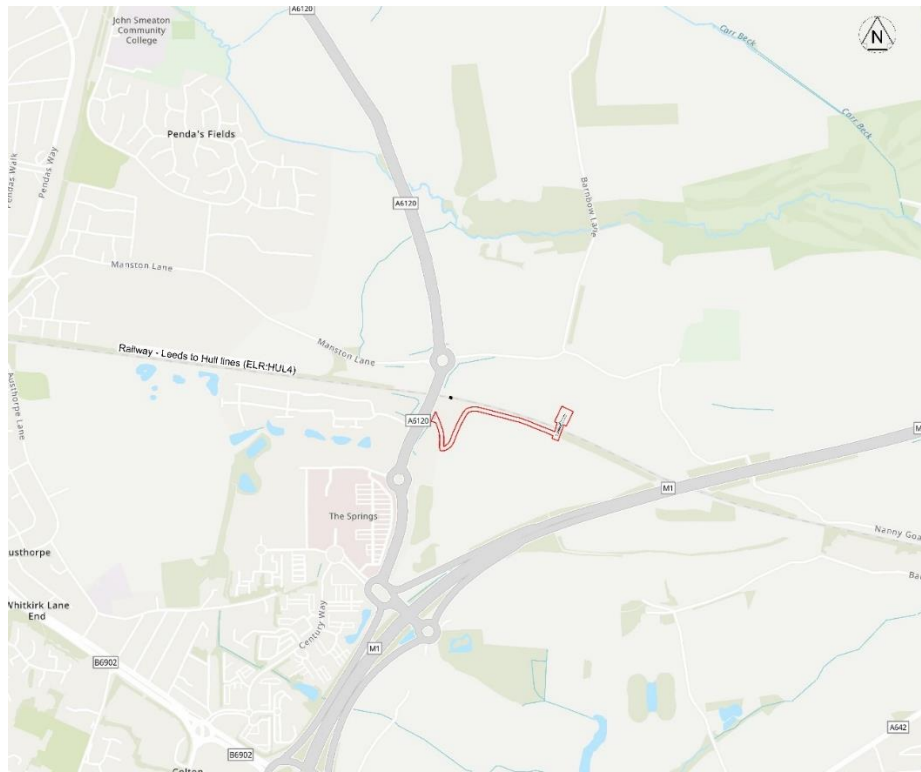


Figure 5: Location of Crawshaw Woods Overbridge

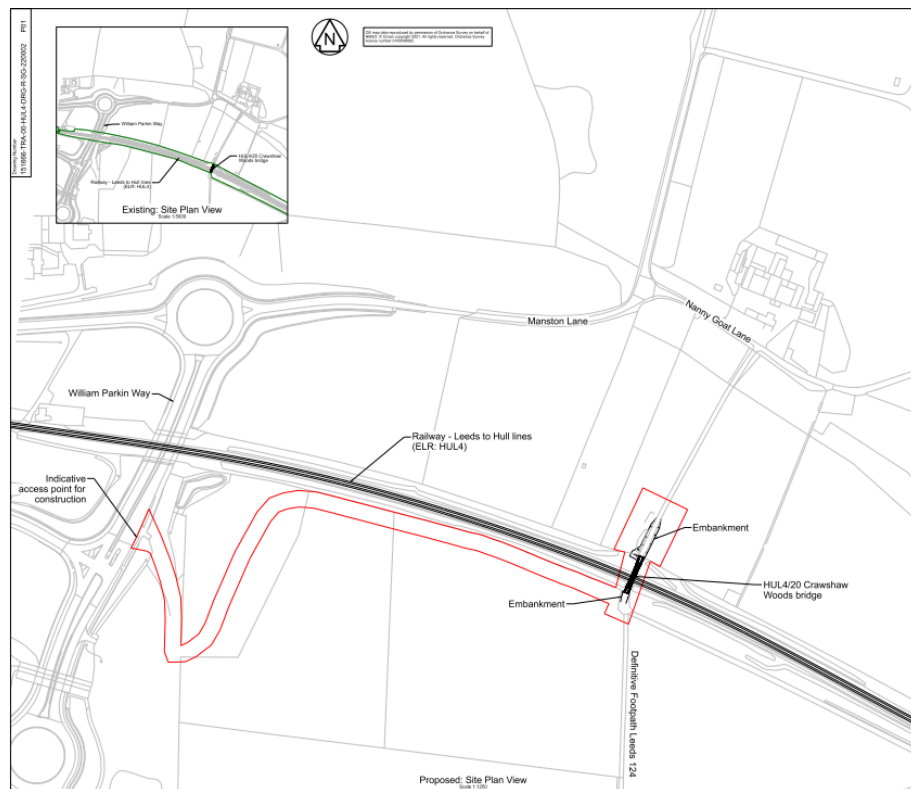


Figure 6: Site layout plan of Works to Raise Crawshaw Woods Bridge

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- 2.2.14 The land immediately surrounding the Bridge is rural in character comprising agricultural fields used for grazing (Figure 7). A PRow footpath crosses Crawshaw Woods Bridge and connects into the wider PRow network with open fields in all surrounding directions that are designated as Green Belt. Due to the topography of the railway (which is in deep cutting at this point) and the surrounding area, the Works to Raise Crawshaw Woods Bridge will not generally be visible from the M1 motorway, but will be visible from Manston Lane and Shippen House Farm, about 220 – 260m away, and from the PRow.



**Figure 7: Aerial view of Crawshaw Woods Overbridge**

- 2.2.15 Approximately 0.5km to the west of the site is the William Parkin Way public highway, which provides access to a recently built large scale commercial and residential development on the eastern edge of Leeds city centre, including the Thorpe Park retail park adjacent to a junction of the M1. This area is subject to a local plan allocation E4:6 for residential and office uses as well as the potential for a new Thorpe Park railway station. The M1 motorway runs roughly east-west about 260m south of the Bridge. Approximately 250m north of the Works is Shippen House Farm on Manston Lane / Nanny Goat Lane, with single lane access directly connecting the farm to the Bridge.
- 2.2.16 There is one relevant planning application on land directly south of Works to Raise Crawshaw Woods Bridge HUL4/20, which is currently undetermined:
- 22/08491/OT for employment development for a range of high-quality buildings suitable for companies of different sizes within the manufacturing, logistics and industrial sectors.

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- 2.2.17 This planning application is on land formerly covered by an emerging Leeds Local Plan site allocation, MX2-38 (EG2-37), Barrowby Lane – 21.2ha of employment land immediately to the south of the bridge (indicative capacity for 150 residential units and 10ha of employment uses) which has been removed by direction of the Local Plan Inquiry Inspector.

**Replacement Ridge Road Bridge**

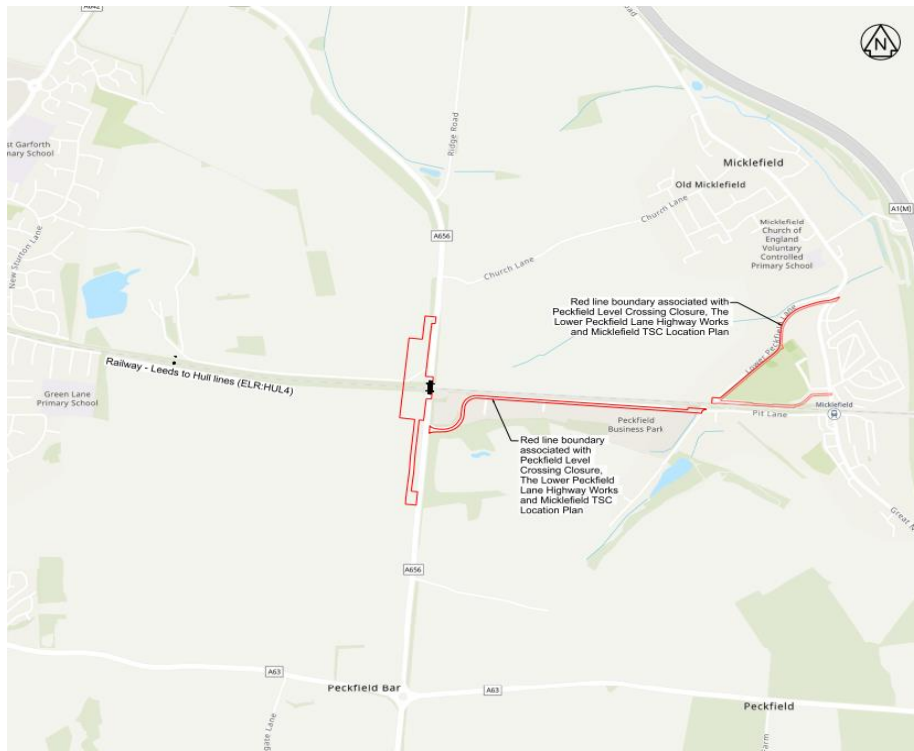
- 2.2.18 Ridge Road Overbridge is located approximately 1.6km east of East Garforth Railway Station and approximately 1.4m west of Micklefield Railway Station, within the metropolitan borough of the City of Leeds, West Yorkshire (Figures 8 and 9). It is a Grade II Listed structure and carries a public highway (A656). Ridge Road Bridge is constructed from sandstone and quarry faced limestone. The Bridge is a single basket arch (a shallow-curved arch) structure constructed from sandstone and quarry faced limestone. The arch itself has stepped V-jointed stones and the parapet above continues the quarry faced limestone dressed with horizontal tooling, topped with rounded coping (top) stones and oval piers.
- 2.2.19 A Northern Gas Networks high-pressure gas main runs via a pipe bridge about 35m west of the Ridge Road Overbridge.
- 2.2.20 The Replacement Ridge Road Bridge will be built on the same alignment as the existing Ridge Road Overbridge, adjacent to the Ridge Road Gas Main Diversion works.
- 2.2.21 The site is located in the Green Belt, approximately 1.0km to the west of Micklefield settlement boundary.



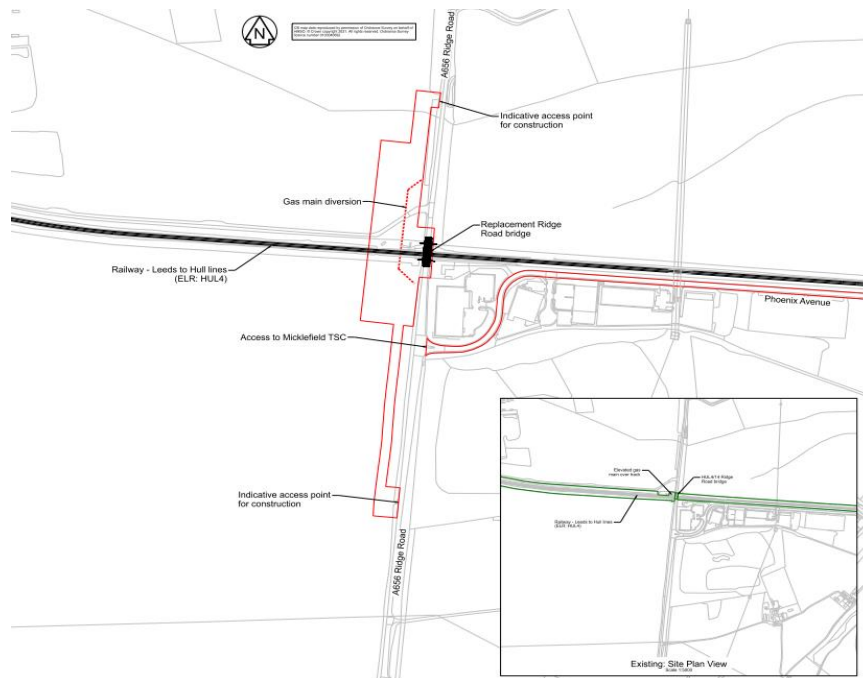
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**Figure 8: Location of Ridge Road Overbridge**



**Figure 9: Site layout plan of the Replacement Ridge Road Bridge**

2.2.22 Immediately to the northeast and southwest of the bridge are open agricultural fields used for arable farming (Figure 10). Grade 3a agricultural land is located directly northeast of the Ridge Road Overbridge. The Land to the northwest of the Overbridge is used for

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commercial agriculture and comprises fruit crops, mown grassland, large scale buildings and a private residential property approximately 2km from the bridge. Approximately 0.6km to the northwest is a solar farm bounded by Ridge Road along its eastern boundary, extending as far as the M1, approximately 1.9km to the north.

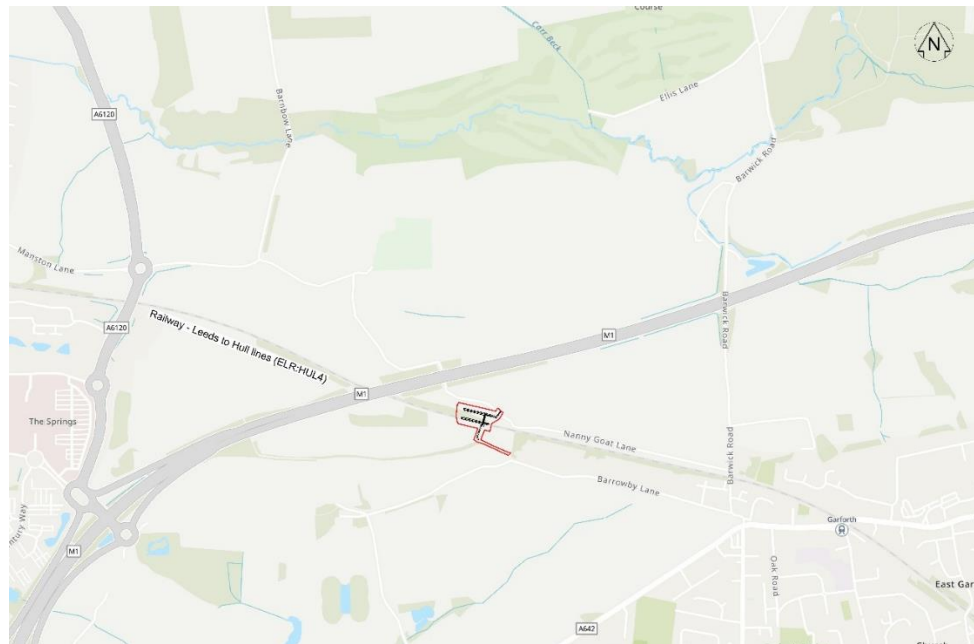


**Figure 10: Aerial view of Ridge Road Overbridge and Gas Main Pipe Bridge**

- 2.2.23 Approximately 30m from the Ridge Road Overbridge is a single property which appears to be residential. Approximately 50m to the southeast there is a cluster of commercial buildings on Phoenix Avenue known as Peckfield Business Park (Figure 10). Peckfield Business Park is designated as a general employment area in the local plan (*E3B:6 Peckfield Business Park*). This allocation is approximately half developed with the eastern section remaining as open scrub land.
- 2.2.24 The Ridge Road Overbridge is located close to a Public Right of Way, Definitive Footpath Sturton Grange 4, which runs to the located north and west of the Bridge, meaning that the Replacement Ridge Road Bridge will be visible from this PRow. The Bridge will also be visible to vehicles, pedestrians and cyclists crossing over it.

### **New Barrowby Lane Bridge**

- 2.2.25 Barrowby Lane and Barrowby Foot Level Crossings are both located west of Garforth, within the metropolitan borough of the City of Leeds, West Yorkshire (Figures 11 & 12).

**The Network Rail (Leeds to Micklefield Enhancements) Order***Document NR15 – Design and Access Statement**July 2023***Figure 11: Location of Barrowby Lane and Barrowby Foot Level Crossing**

- 2.2.26 Approximately 0.75km west of Garforth, Barrowby Lane Level Crossing is a bridleway crossing that connects Barrowby Lane to the south of the railway, leading to Nanny Goat Lane to the north of the railway. The deemed planning permission application includes the New Barrowby Lane Bridge only. The New Barrowby Lane Bridge is proposed to be located approximately 100 metres to the west of the existing Barrowby Lane bridleway level crossing and will be a ramped bridleway bridge with additional steps for pedestrians (Figure 12).
- 2.2.27 Approximately 0.3km west of Garforth, Barrowby Foot Level Crossing carries a PRow footpath across a level crossing, accessed by steps located approximately 430m to the east of Barrowby Lane Level Crossing (Figure 12). It connects Barrowby Lane to the south of the railway to Nanny Goat Lane to the north of the railway.
- 2.2.28 The location of the New Barrowby Lane Bridge is shown in Figures 12 and 13, close to several Public Rights of Way and will become part of the definitive Public Right of Way map. The New Barrowby Lane Bridge will be visible from, or in close proximity to Definitive Footpath Garforth 6, Barwick 10, Austhorpe 9, Austhorpe 12, Leeds 125, Leeds country Way and Non-Definitive Brindleway Barwick.
- 2.2.29 The New Barrowby Lane Bridge will be visible from White House Farm on Nanny Goat Lane and properties to the western end of Barrowby Lane. White House Farm is immediately to the north of Barrowby Lane Level Crossing and accommodates Garforth Stables comprising a two-



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storey house, outbuildings and menage. Surrounding the stables are agricultural fields bounded by the M1 to the north (approximately 220m to the north of the level crossing). Immediately to the southwest of the level crossing is an open field. Approximately 0.1km to the southeast of the level crossing is a small, wooded area and a group of dwellings and businesses fronting onto Barrowby Lane. The New Barrowby Lane Bridge will be visible to vehicles on the M1 motorway and to users of the surrounding public right of way network.

- 2.2.30 The New Barrowby Lane Bridge is within the Green Belt and within an area of rural character surrounded by agricultural fields classified as Grade 2 'Best and Most Versatile Agricultural Land'. The National character Area in this location is Southern Magnesian Limestone. To the northeast, running between the southern side of the M1 and the location of the New Barrowby Lane Bridge, is a corridor of land (100m-200m in width) safeguarded for HS2.

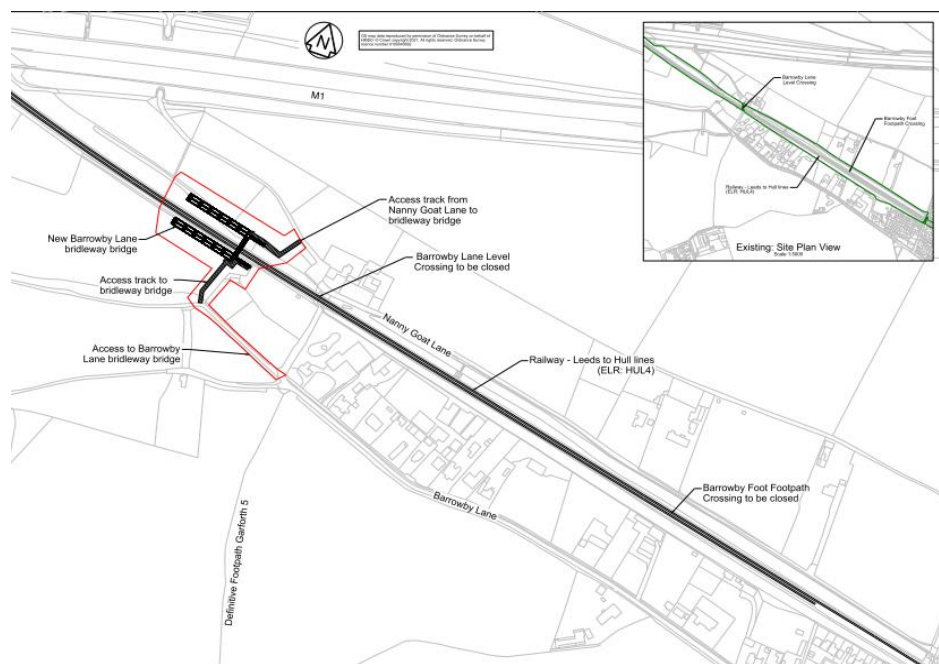


Figure 12: Site layout plan of the New Barrowby Lane Bridge

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**Figure 13: Aerial view of Barrowby Lane Level Crossing**

- 2.2.31 Barrowby Foot Level Crossing sits on an embankment accessed by stairs from the north off Nanny Goat Lane, a tree lined lane that runs adjacent to the railway line beyond which is a small group of residential dwellings and agricultural fields. To the south of the level crossing are some agricultural buildings and fields. The compound to facilitate the embankment stability works is to be located 0.1km to the east of the level crossing. Both Barrowby Lane and Nanny Goat Lane have residential properties located close to the routes of the existing and diverted Public Rights of Way.

**Peckfield Level Crossing Closure and Micklefield TSC**

- 2.2.32 Peckfield Level Crossing is located approximately 0.3km west of Micklefield Railway Station, within the metropolitan borough of the City of Leeds, West Yorkshire (Figure 14).

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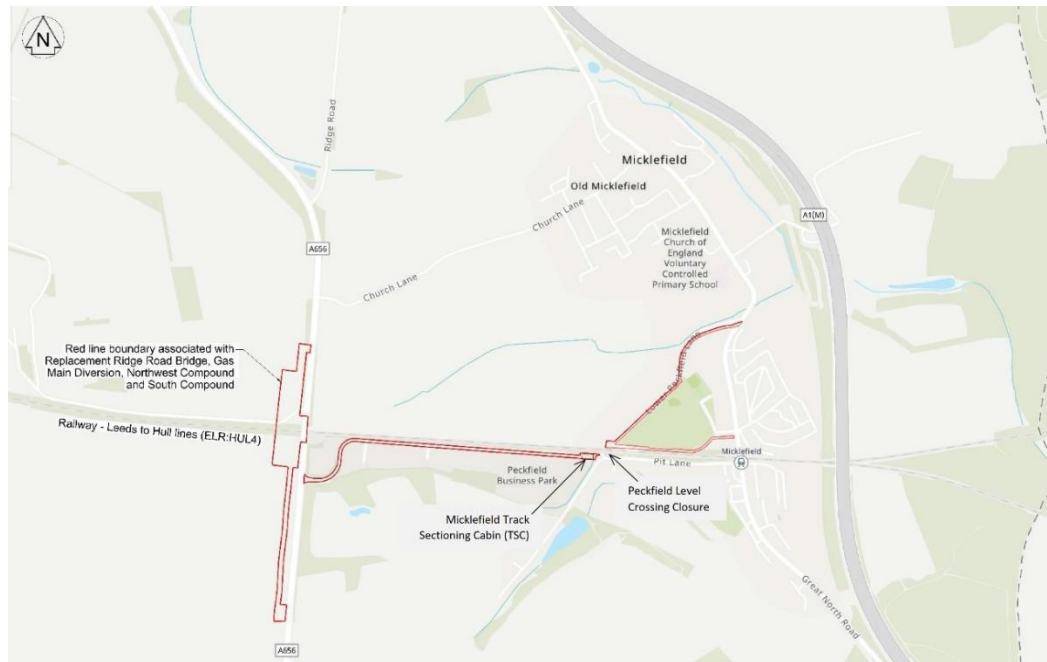


Figure 14: Location of Peckfield Level Crossing Closure and Micklefield TSC

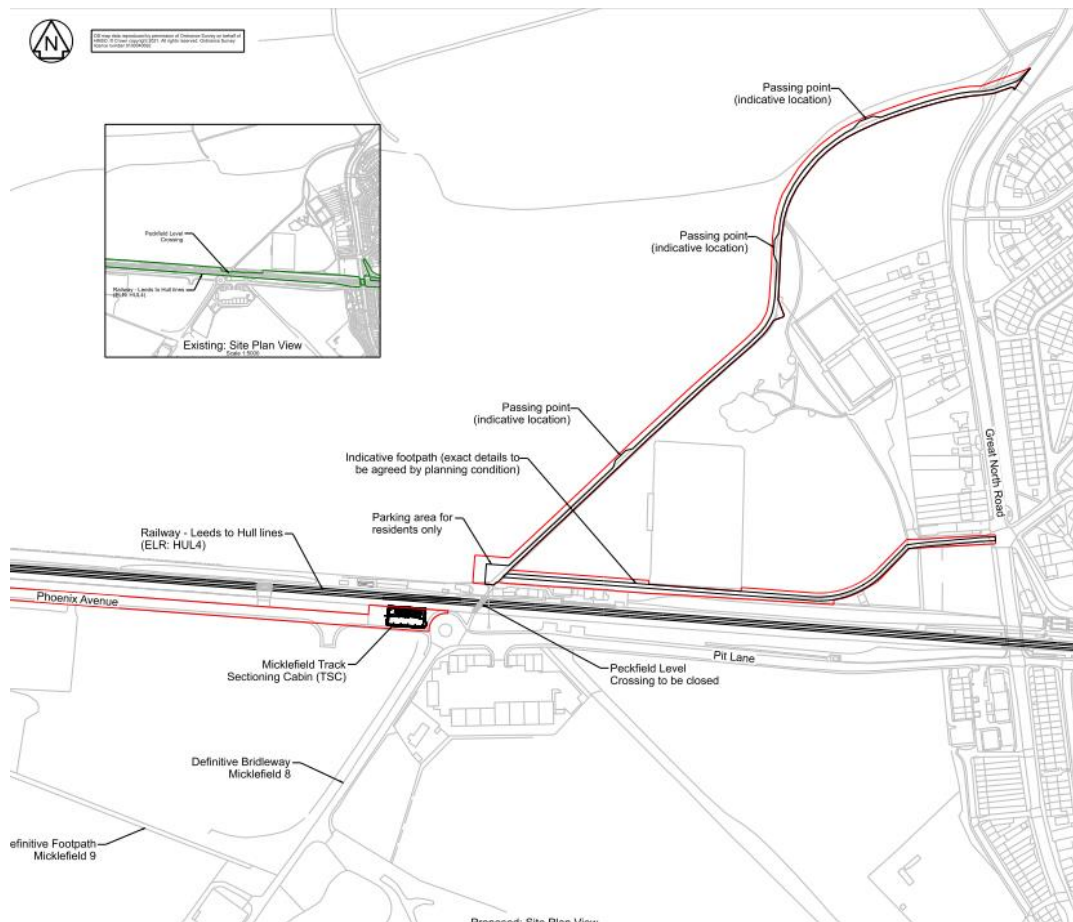


Figure 15: Site layout plan of Peckfield Level Crossing Closure and Micklefield TSC



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- 2.2.33 Peckfield Level Crossing provides access between Pit Lane to the north of the railway (also known as Lower Peckfield Lane) and Pit Lane to the south of the railway. It also forms part of a Definitive Bridleway Micklefield 8 route. There are five residences (Railway Properties) on land to the north, adjacent to the railway boundary and all within 100m of the level crossing itself. Situated to the south of the Level Crossing are various businesses located on the Enterprise Court as well as a new residential estate adjoining this immediately to the east. Beyond these to the south are open agricultural fields for arable farming (Figure 14 and 16).



**Figure 16: Aerial view of Peckfield Level Crossing and Land off Phoenix Avenue**

- 2.2.34 Construction of a TSC is proposed on a slim strip of land comprising scrub planting the north side of Phoenix Avenue, on the southern side of the railway, approximately 50m west of Peckfield Level Crossing (Figure 15).
- 2.2.35 The land on the northern side of the railway and to the west of Lower Peckfield Lane is designated as Green Belt. The surrounding agricultural land is categorised as Grade 2 and 3a 'Best and Most Versatile Agricultural Land'. Immediately to the north-east of the Railway Properties is Micklefield Recreation ground.

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- 2.2.36 The TSC will also be visible from the employment site, Enterprise Court, to the east of the TSC and to vehicles, pedestrians and cyclists using Pit Lane and Phoenix Avenue.
- 2.2.37 Micklefield TSC will be located close to Definitive Bridleway Micklefield 8, which will be stopped up at the Peckfield Level Crossing.
- 2.2.38 There is one approved planning application to the south of Peckfield Level Crossing Closure and east of the Micklefield TSC, 19/04463/DTM for the determination for the installation of electronic telecommunications apparatus.
- 2.2.39 The Peckfield Level Crossing and Micklefield TSC is close to three relevant site allocations:
- HG8-3, Land off Phoenix Avenue Micklefield – 2ha Gypsy and Traveller site, 6 plots. This allocation is immediately south of the Micklefield TSC site and this site is not currently developed.
  - HG2-125, Pit Lane – 4.3ha housing allocation for 79 units. Southeast of Peckfield Level Crossing. This site is currently being built out.
  - E3B:6, Peckfield Business Park – general employment allocation comprising EG1-43 and EG1-44. This site is to the south of the railway and a short distance to the east of Peckfield Level Crossing. The site for EG1-44 is currently undeveloped.

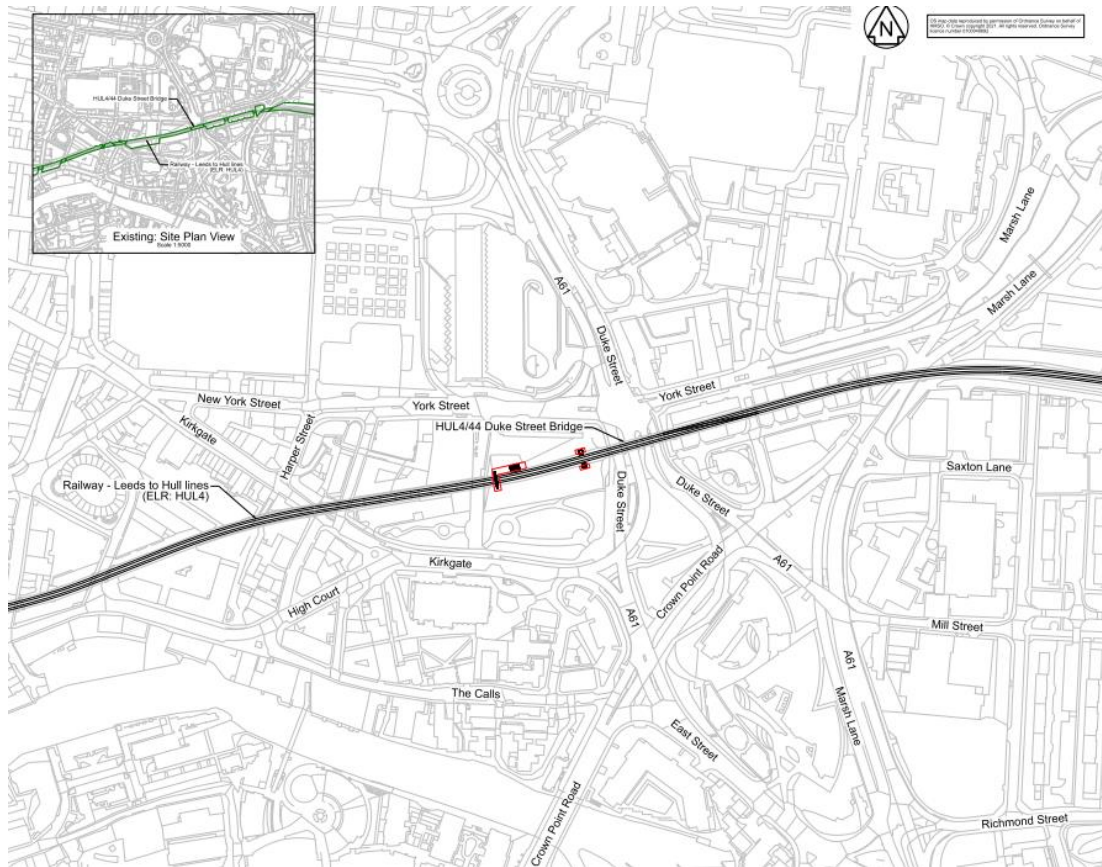
**Kirkgate to Marsh Lane Land**

- 2.2.40 The Kirkgate to Marsh Lane Land is located on a railway embankment in central Leeds, approximately 1.6km east of Leeds Railway Station (Figure 17). This Land comprises small parcels of land, approximately 190 square metres in total, on the railway embankment, for the siting of small-scale electrification and signalling infrastructure (Figure 18). The specific locations required are to be determined through a detailed design process. The railway embankment forms part of an approximately 1ha public park known as Penny Pocket Park and includes gravestones, grassland and some mature trees.

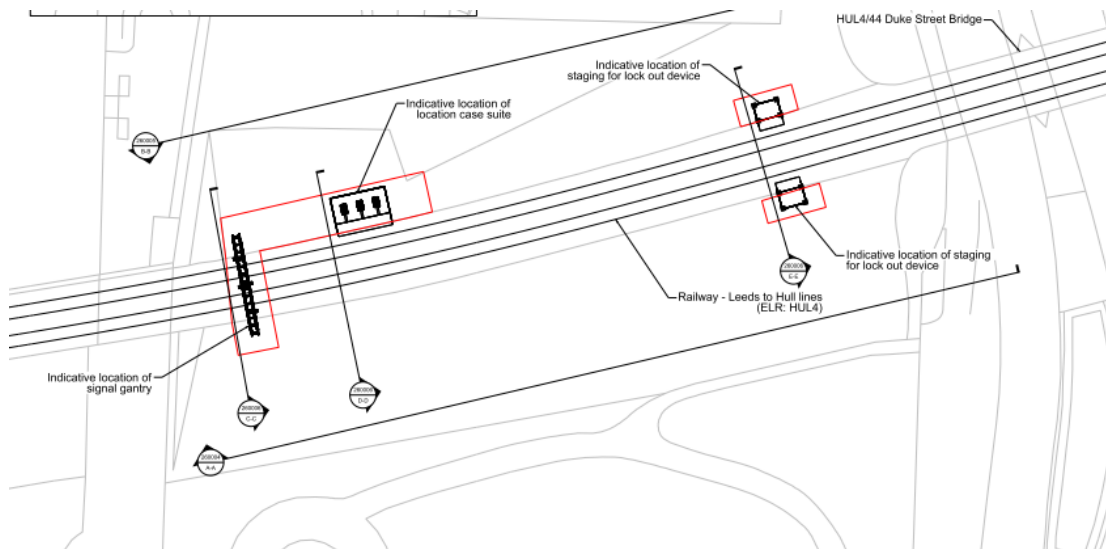
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**Figure 17: Location of Kirkgate to Marsh Lane Land**



**Figure 18: Site layout plan of Kirkgate to Marsh Lane Land**

2.2.41 Penny Pocket Park is designated Green Space (G84 – Leeds Site Allocation Plan City Centre) surrounded on its north, east and west sides by public highways and on the west by a pedestrian walkway, from which the new infrastructure will be visible (Figure 19). Penny Pocket Park is also designated open space under the Acquisition of



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Land Act 1981 ('ALA'), however, the area of Kirkgate to Marsh Lane Land required is below the 209 square metres threshold which would trigger special parliamentary measures under the ALA.



**Figure 19: Aerial view of Kirkgate to Marsh Lane land (Source: RouteView)**

2.2.42 The Kirkgate to Marsh Lane Land is within Leeds City Centre Conservation Area. To the south and south-west of the site (approximately 125m) is a cluster of 6 Grade II listed buildings and the Grade I listed Leeds Minster. To the north-west of the site (approximately 100m) is Grade II listed 46 and 48 New York Street.

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### 3. PLANNING POLICY CONTEXT

#### 3.1 Policy context

3.1.1 The Planning Statement (NR 13) that supports the request for deemed planning permission provides details of the relevant planning policy context for the Scheme Development. It lists the specific policies relevant to the application, amongst which are design and access policies. The following national and local planning policy contains relevant design and access policy.

- National Planning Policy Framework (2021)
- Planning Practice Guidance (2021)
- Leeds City Council Core Strategy (November 2014) (as amended by the Core Strategy Selective Review 2019) (September 2019)
- Leeds Unitary Development Plan Review ‘Saved’ Policies (adopted 2006)
- Emerging Garforth Neighbourhood Plan (Submission Draft Plan)

3.1.2 Sections 3.2 – 3.3 provide a summary of policies relevant to the specific design and access aspects of the Scheme Development.

#### 3.2 National planning policy

##### National Planning Policy Framework

3.2.1 The National Planning Policy Framework (Ministry of Housing, Communities and Local Government, July 2021) (“NPPF”) provides the planning policy context. It forms the basis for all post-2012 local plan policies throughout England and is material to the assessment of all planning applications.

3.2.2 NPPF paragraph 8 includes ‘*fostering well-designed....places, with accessible services*’ as part of one of the main overarching objectives of the planning system. Paragraph 11 of the NPPF states that plans and decisions should apply a presumption in favour of sustainable development. For decision-taking this means:

- approving development proposals that accord with an up-to-date development plan without delay; or
- where there are no relevant development plan policies, or the policies which are most important for determining the application are out-of-date, granting permission unless:



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i. the application of policies in the Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed; or

ii. any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole.

3.2.3 **Chapter 8 (Promoting healthy and safe communities)** stresses the importance of access to high quality open spaces to the health and well-being of communities. The planning system is a means of providing safe and accessible developments, containing clear and legible pedestrian routes, and high-quality public space, which encourages the active and continual use of public areas. Access to high quality open spaces and opportunities for recreation can make an important contribution to the health and well-being of communities. Of particular relevance is paragraph 100 concerning the protection of existing PRow and access.

3.2.4 **Chapter 12 (Achieving well-designed places)** states that the Government attaches great importance to the design of the built environment and that good design is a key aspect of sustainable development, is indivisible from good planning, and should contribute positively to making places better for people. Paragraph 130 states that planning applications of poor design should be refused and planning policies and decisions should aim to ensure that, inter alia, developments:

- “will function well and add to the overall quality of the area, not just for the short term but over the lifetime of the development;
- are visually attractive as a result of good architecture, layout and appropriate and effective landscaping;
- are sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change (such as increased densities); and
- create places that are safe, inclusive and accessible and which promote health and well-being, ... and where crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion and resilience.”

3.2.5 **Chapter 16 (protecting the Historic Environment)** stresses the need to assess the significance of any heritage asset which is affected by a development proposal (paragraph 194); this would be taken into account when considering the impact of a proposal on a heritage asset,

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to avoid or minimise any conflict between the heritage asset's conservation and any aspect of the proposal (paragraph 195).

**Planning Practice Guidance**

- 3.2.6 Further guidance on design is given in the national Planning Practice Guidance (Department for Levelling Up, Housing and Communities and Ministry of Housing, Communities and Local Government – last update June 2021). This Guidance makes specific reference to good design, stating that good quality design is an integral part of sustainable development, that design quality matters and that Planning should promote standards across all forms of development.
- 3.2.7 The Guidance continues to say that well-designed places are successful and valued. The National Design Guide (complimentary to the Guidance) (Ministry of Housing, Communities and Local Government 2021) sets out ten key characteristics to underpin good design.
- Context
  - Identity
  - Built Form
  - Movement
  - Nature
  - Public Spaces
  - Uses
  - Homes & Buildings
  - Resources
  - Lifespan

**3.3 Local planning policy**

- 3.3.1 At the local level, development is governed by the local planning authority (Leeds City Council (“the Council”)) and the Council's development plan containing design and access policies relevant to this Design and Access Statement consists of the following documents.
- Core Strategy (as amended by the Core Strategy Selective Review 2019) (adopted 2019)
  - Leeds Unitary Development Plan Review ‘Saved’ Policies (adopted 2006)

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- 3.3.2 The Council has also adopted a supplementary planning document entitled Accessible Leeds and there is an emerging Garforth Neighbourhood Plan.
  - 3.3.3 Relevant development plan and SDP policies are summarised below.
  - 3.3.4 The **Core Strategy** is the main strategic document within the Local Plan for Leeds and sets out the strategic policy framework for the district to 2038 and a housing requirement to 2033. The following policies are considered relevant considerations for the design of the Scheme Development.
- Policy P10: Design.
    - *New development for buildings and spaces, and alterations to existing, should be based on a thorough contextual analysis and provide good design that is appropriate to its location, scale and function*
    - *New development will be expected to deliver high quality inclusive design that has evolved, where appropriate, through community consultation and thorough analysis and understanding of an area. Developments should respect and enhance existing landscapes, waterscapes, streets, spaces and buildings according to the particular local distinctiveness and wider setting of the place with the intention of contributing positively to place making, quality of life and wellbeing.*
    - *Proposals will be supported where they accord with the following key principles;*
      - i. *The size, scale, design and layout of the development is appropriate to its context and respects the character and quality of surrounding buildings; the streets and spaces that make up the public realm and the wider locality.*
      - ii. *The development protects and enhances the district's existing, historic and natural assets, in particular, historic and natural site features and locally important buildings, spaces, skylines and views,*
      - iii. *The development protects the visual, residential and general amenity of the area through high quality design that protects and enhances surrounding routes, useable space, privacy, air quality and satisfactory penetration of sunlight and daylight,*
      - iv. *Car parking, cycle, waste and recycling storage should be designed in a positive manner and be integral to the development,*

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- v. The development creates a safe and secure environment that reduces the opportunities for crime without compromising community cohesion,*
  - vi. The development is accessible to all users.*
- Policy P11: Conservation.
  - *The historic environment, consisting of archaeological remains, historic buildings townscapes and landscapes, including locally significant undesignated assets and their settings, will be conserved and enhanced, particularly those elements which help to give Leeds its distinct identity:*
    - i. the Victorian and Edwardian civic and public buildings, theatres, arcades, warehouses and offices within the City Centre and the urban grain of yards and alleys,*
    - ii. the nationally significant industrial heritage relating to its textile, tanning and engineering industries, including its factories, chimneys and associated housing,*
    - iii. its legacy of country houses, public parks, gardens and cemeteries,*
    - iv. the 19th century transport network, including the Leeds and Liverpool Canal.*
  - *Development proposals will be expected to demonstrate a full understanding of historic assets affected, including any known or potential archaeological remains. Where appropriate, heritage statements assessing the significance of assets, the impact of proposals and mitigation measures will be required to be submitted by developers to accompany development proposals.*
  - *Innovative and sustainable construction which integrates with and enhances the historic environment will be encouraged.*
- Policy P12: Landscape
  - *The character, quality and biodiversity of Leeds' townscapes and landscapes, including their historical and cultural significance, will be conserved and enhanced to protect their distinctiveness through stewardship and the planning process.*
- Policy G1: Enhancing and Extending Green Infrastructure.
  - *Where a development is considered to be acceptable within or adjoining areas defined as Green Infrastructure on Map 16 or on any future LDF Allocation Documents, development proposals should ensure that:*

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- i. *Green Infrastructure/corridor function of the land is retained and improved, particularly in areas of growth.*
  - ii. *Where appropriate, the opportunity is taken to extend Green Infrastructure by linking green spaces or by filling in gaps in Green Infrastructure corridors, including (where relevant) extending these into Leeds City Centre. Street trees and green roofs are particularly encouraged.*
  - iii. *A landscaping scheme is provided which deals positively with the transition between development and any adjoining open land.*
  - iv. *The opportunity is taken to increase appropriate species of woodland cover in the District.*
  - v. *Provision for and retention of biodiversity and wildlife.*
  - vi. *Opportunities are taken to protect and enhance the Public Rights of Way (PROW) network through avoiding unnecessary diversions and by adding new links.*
- Policy G6: Protection and Redevelopment of Existing Green Space
  - *Green space (including open space in the City Centre) will be protected from development unless one of the following criteria is met:*
    - i. *There is an adequate supply of accessible green space / open space within the analysis area and the development site offers no potential for use as an alternative deficient open space type; or*
    - ii. *The green space / open space is replaced by an area of at least equal size, accessibility and quality in the same locality; or*
    - iii. *Where supported by evidence and in the delivery of wider planning benefits, redevelopment proposals demonstrate a clear relationship to improvements of existing green space quality in the same locality.*
- Policy G9: Biodiversity Improvements.
  - *Development will be required to demonstrate:*
    - ii. *The design of new development, including landscape, enhances existing wildlife habitats and provides new areas and opportunities for wildlife....*

3.3.5 The Leeds **Unitary Development Plan (UDP)** was adopted in 2001 and reviewed in 2006. When the Core Strategy was adopted in 2019,

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'Saved' Policies from the UDP were retained, the following policies are considered relevant in relation to design.

- Policy N17 Listed Buildings Character and Appearance
  - *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. To the extent that the original plan form is intact, the plan should be preserved where it contributes to the special character and appearance of the building.*
- Policy N19 Conservation Areas and New Buildings
  - *All new buildings and extensions within or adjacent to conservation areas should preserve or enhance the character or appearance of the area by ensuring that:*
    - *The siting and scale of the building is in harmony with the adjoining buildings and area as a whole.*
    - *Detailed design of the buildings, including the roofscape is such that the proportions of the parts relate to each other and to adjoining buildings.*
    - *The materials used are appropriate to the area and sympathetic to adjoining buildings. Where a local materials policy exists, this should be complied with.*
    - *Careful attention is given to the design and quality of boundary and landscape treatment.*
- Policy N20 Conservation Areas and Retention of Features
  - *Demolition or removal of other features which contribute to the character of the conservation area and which are subject to planning control, such as trees, boundary walls or railings, will be resisted.*
- Policy N24 Development Proposals Next to Green Belt / Corridors
  - *Where development proposals about the green belt, green corridors or other open land, their assimilation into the landscape must be achieved as part of the scheme. If existing landscape features would not achieve this, a landscaping scheme will be required to be implemented which deals positively with the transition between development and open land.*
- Policy N37A Development in the Countryside

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- *All new development or change in land use within the countryside should:*
  - *Have regard to the character of the landscape in which it is set, and maintain particular features which contribute to this; and*
  - *Where appropriate, contribute positively to restoration or enhancement objectives by incorporation of suitable landscape works.*

3.3.6 Supplementary to Policy P10: Design, of the Leeds City Council Core Strategy, the **Accessible Leeds SPD** outlines six 'Implementation Points' which applicants for planning permission should take into account. Implementation Points (IP) 2, 3, 4 and 5 are relevant to the Design and Access Statement.

- IP 2, 3 and 4 - *Produce a design which takes a pan-disability/pan-impairment approach and creates an inclusive environment for people with impairments as well as incorporating design for disabled and elderly people, creating solutions that provide choice as to how people access and use buildings or spaces, enabling everyone to use the development safely, easily and with dignity without unnecessary effort, separation or segregation.*
- IP 5 - *Produce an access statement for the development identifying the approach to inclusive design, the key issues of the scheme and the courses of advice and guidance used in relation to access and inclusive design.*

3.3.7 The **Garforth Neighbourhood Plan** (pre-submission plan) has been submitted to Leeds City Council for independent examination. The New Barrowby Lane Bridge falls within the designated plan area, meaning that once adopted, policies from the Garforth Neighbourhood Plan will influence planning and development in the area and those which are relevant to the Scheme Development are outlined below.

- Policy GSRE5 Protecting Local Green Corridors
  - *Development proposals within or adjacent to local green corridors must seek to enhance their function as part of a multifunctional wildlife, recreational and amenity network. Proposals should retain existing trees and hedgerows as wildlife corridors and should not be hard surfaced, wherever possible soft landscaping solutions should be used. The improvement of local green corridors through additional tree and hedgerow planting will be supported.*

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- Policy GSRE6 Green Infrastructure Opportunities.
  - *Development proposals within the green infrastructure opportunity corridors shown on map 18 should seek to link the proposal to the identified green infrastructure network through measures such as:*
    - *New green space provision*
    - *Planting*
    - *Street trees*
    - *Landscaping*
    - *Walking and cycling routes*
- Policy GSRE 7 Accessibility and Connectivity (Including PROW)
  - *Proposals for improving the existing PROW network will be supported. Proposals on, or adjacent to the PROW network must respect their function, character, and outlook and ensure community access to the network throughout the lifetime of development, including the construction phase.*
- Policy GSRE9 The Rural Environment.
  - *Development proposals on the edge of and around the built-up area of Garforth within the Neighbourhood plan area should take into account the rural environment (including natural habitats and biodiversity) by:*
    - *Providing adequate screening where development would be visually intrusive in the landscape*
    - *Providing accessibility to the countryside where feasible*
- Policy GSRE10 Biodiversity and the Leeds Habitat Network.
  - *Proposals within or adjacent to the Leeds Habitat Network in Garforth as shown on map 22 must demonstrate that:*
    - *The design of new developments including landscaping schemes, enhances wildlife habitats and provides new areas and opportunities for wildlife.*
- Policy GSRE11 Preservation of Grade 2 and 3 Agricultural Land
  - *Development proposals should take into account the agricultural land classifications in rural and natural areas to ensure that they contribute to and enhance the natural and local environment by protecting landscape, geology and soils.*
- Policy GSRE13 Landscape Character



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- *Development proposals within the open landscape should respect and enhance the special landscape characteristics of Garforth in line with the Leeds landscape assessment. Proposals for the restoration of traditional landscape features such as new woodland and hedgerows will be encouraged and supported.*

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- 4.1.1 The NPPF recognises the importance of early engagement with stakeholders and local communities in the preparation of development proposals, including design. NPPF Paragraph 39 highlights the advantages of pre-application engagement and front loading. It states that *“Good quality pre-application discussion enables better coordination between public and private resources and improved outcomes for the community”*.
- 4.1.2 Network Rail has undertaken several stages of consultation with both the public (public consultation) and statutory consultees (statutory consultation as required under legislation governing the TWAO process). As part of this consultation, Network Rail engaged with owners, lessees, tenants and occupiers of land potentially impacted by the Scheme Development. The purpose of the engagement with landowners was to explain the potential impacts that the Scheme Development may have on their land and in some cases, understand the operation of businesses so that these discussions could be taken into consideration when developing the design.
- 4.1.3 Consultation took place at key stages during the development and design of the Scheme and full details of each of the consultation stages is provided within the Consultation Summary Report (NR07).
- 4.1.4 Feedback from consultation informed the selection of the preferred Scheme designs as part of a process of identifying and evaluating potential alternative options for delivering the required TRU outcomes, for example the closure of level crossings and alternative options to mitigate the loss of access across the railway and the need to increase the height of overbridges to allow the installation of O(H)LE. Details of this process are provided in section 4 of the Planning Statement (NR14).
- 4.1.5 The following section describes how consultation feedback has influenced the Scheme Development design, rather than Scheme Development options - the focus of this section is on the more detailed design considerations, following the selection of the preferred Scheme Development options.

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- 4.2.1 The various stages of consultation provided valuable feedback on the Scheme Development designs. The main issues raised that led to a change to the design are summarised for each Scheme Development element in the following sections.

**The New Barrowby Lane Bridge**

- 4.2.2 **Access.** Landowners requested that the alignment of the new bridleway route be positioned against a field boundary to avoid cutting off any land unnecessarily. This change has been accommodated in the proposed design.
- 4.2.3 **Public Rights of Way.** Leeds City Council and interest groups raised whether the path between the current Barrowby Foot level crossing and the proposed New Barrowby Lane Bridge could be converted to a bridleway. The route on the north side of the railway, along Nanny Goat Lane between the existing level crossings, will be created as a bridleway. Leeds City Council noted that the bridleway bridge design will need to be accessible to all users and applicable accessible design standards have been applied accordingly.
- 4.2.4 **Fencing.** Interest groups commented that they would like the gates currently in place to be removed or upgraded to bridleway standard. The Order allows this detail to be agreed in consultation with relevant parties at a later date.
- 4.2.5 **Veteran trees.** Leeds City Council requested that the loss of veteran trees should be avoided. Proposals for construction land were amended to allow sufficient construction space, or the implementation of appropriate protection measures, to avoid the loss of any veteran trees.
- 4.2.6 **Lighting.** Some feedback suggested lighting be included in the New Barrowby Lane Bridge design and low-level lighting will be included.
- 4.2.7 **Bridge geometry and parapet height regarding equestrian safety.** Concerns raised for the safety of riders and horses using the bridge, due to the proposed width, parapet height and degree of turn on the ramp. The bridge is designed to relevant accessibility standards, for the safety of all bridleway users.

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- 4.2.8 **Fencing and lighting of proposed footpath between the Railway Properties and Micklefield Village.** Respondents raised concerns about safety for users of the proposed footpath and the impact of anti-social behaviour. Lighting is not proposed but the Order allows for the construction of fencing if this is deemed to be an appropriate measure following consultation on detailed design.
- 4.2.9 **Accessibility.** The Parish Council noted that the alignment of the proposed PRoW through the recreation ground should not interfere with the construction and use of disabled access to properties adjacent to the path. The design of the path has taken this into account.

The Replacement Austhorpe Lane Bridge, The Replacement Ridge Road Bridge and the Works to Raise Crawshaw Woods Bridge

- 4.2.10 **Heritage impact.** The Georgian Group requested that Austhorpe Lane and Ridge Road Bridges should be rebuilt in solid masonry, replicating the original design and if the structures must be altered as part of the scheme, they should be carefully dismantled with as much historic material conserved as possible for reconstruction to the existing historic design. A bespoke design for the Replacement Austhorpe Lane and Ridge Road Bridges is proposed, which both reflects the original basket arch design and conserves much of the original stonework, as described in section 8.
- 4.2.11 **Heritage impact.** Historic England advised that a bespoke design solution that retains heritage features or compliments the design of the original structure was required. The design for the Replacement Ridge Road and Austhorpe Lane Bridges was revised to incorporate a weathering steel arch feature and re-built parapets using reclaimed stone, which has been welcomed by Historic England.
- 4.2.12 **Heritage impact.** Historic England advised on Crawshaw Woods that, as a minimum, the existing structure should be repaired and refurbished to a high standard befitting its Grade II listed status. This advice has been fully accommodated in the proposed design which meets these requirements, as described in section 8.
- 4.2.13 **Highway safety and capacity.** Leeds City Council advised that the originally proposed single carriageway road design for the Replacement Austhorpe Lane Bridge was inadequate, raising highway safety concerns. The design has been amended to include a two-lane

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road and a footpath, on a revised highway alignment, improving highway visibility and highway capacity.

The Micklefield TSC

- 4.2.14 **Landscape and visual impact.** Leeds City Council requested that the Micklefield TSC boundary should not affect the amenity of the residents of the adjoining travelling show people site, noting the need to ensure suitable boundary treatment to ensure it does not adversely impact on amenity of residents. However, the amount of land available in this location is only sufficient to accommodate the TSC building and vehicular access to it, leaving no space to accommodate boundary landscaping treatment.

The Kirkgate to Marsh Lane Land

- 4.2.15 No specific design-related feedback was received.

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### **5. SUSTAINABILITY**

#### **5.1 Introduction**

- 5.1.1 The sustainability performance of the Scheme Development has been an active consideration in the design development. The wider Scheme and TRU generally, champions the improvement of existing infrastructure to meet the needs of the operational railway.

#### **5.2 Flood risk**

All elements of the Scheme Development are within Flood Zone 1 and are not at risk of fluvial flooding, therefore no embedded design mitigation is required.

#### **5.3 Carbon reduction**

- 5.3.1 The government has set a target to reduce carbon emissions by 80% by 2050, compared to 1990 levels. Network Rail is committed to reducing energy consumption and carbon emissions across the rail network, as outlined in the Network Rail Energy and Carbon Policy. In order to achieve these objectives, the carbon reduction hierarchy (Build Nothing, Build, Less, Build Clever, Build Efficiently) outlined in the Publicly Available Specification PAS 2080:2016 has been applied at key decision points throughout the option selection and development process. The electrification of the railway will result in a predicted carbon reduction of 6.6 million tonnes over the 60-year design life of the TRU scheme.

#### **5.4 Whole life benefits**

- 5.4.1 The design process has sought to identify long-term benefits over the lifetime of the infrastructure. Resource efficiency and carbon reduction workshops have been convened with key design leads, and during these workshops the specification of materials and replacement with more sustainable alternatives has been considered and where possible implemented within the designs. Measures have also been considered to reduce future maintenance requirements where possible.

#### **5.5 Future needs**

- 5.5.1 The Scheme Development aims to support the TRU Programme which will provide better punctuality (resilience), more capacity and faster journeys by means of line speed improvements and technology upgrades, including electrification.

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- 5.5.2 Throughout the design process, the potential impact of climate change on the proposals have been considered, with regard to changing weather patterns and future weather resilience. A specific Weather and Climate Change Impact Assessment has been undertaken for this section of the route, supported by a project-level Weather Resilience and Climate Change Adaptation strategy, and the findings of this assessment have informed the design process. These include raising proposed drainage outfall discharge points above the predicted future flood levels, and the specification of permeable surfacing at compound and TSC sites to reduce the risk of surface water flooding during high rainfall events.
- 5.5.3 A specific Future Needs Assessment has also been undertaken which focuses on the factors identified within CEEQUAL v6 (an industry standard evidence-based sustainability assessment scheme for infrastructure projects), including population growth; changing demographic; customer expectations; integrated systems; and resource availability. This study confirmed that at a project-level, these factors have been taken into account and will continue to be reviewed at the detailed design stage.

**The Network Rail (Leeds to Micklefield Enhancements) Order***Document NR15 – Design and Access Statement**July 2023***6. DESIGN AND ACCESS PRINCIPLES AND APPRAISAL****6.1 General design and access principles & concepts**

6.1.1 The approach taken to the design of the Scheme Development balances:

- the necessary technical design and safety standards adopted by Network Rail;
- considerations established in relevant planning policy (as summarised in Section 3); and
- stakeholder views gathered during consultation (summarised in Section 4).

6.1.2 These main principles and concepts for the design of the Scheme Development are summarised below and sections 7-10 of this Design and Access Statement explain how these important principles and concepts have been taken into account in the Scheme Development design.

***Summary of main design principles and concepts***

- Operational and functional requirements of the railway and the Scheme Development, over the lifetime of the Scheme.
- Aesthetics and quality of design, including appearance of materials, consideration of relevant design codes and guidance.
- Environmental considerations, including potential to accommodate the Scheme Development, sustainability, heritage, visual impact and landscaping (landscape character context), biodiversity and pollution and ground conditions.
- Local context and site constraints, including Scheme Development layout and efficiency of land use.
- Accessibility, including sustainable transport, protection of PRow, inclusive design and access and pedestrian access, vehicular access built to adoptable standards (residential and agricultural), parking and safety.
- Access for maintenance and inspection.
- Materials durability and sustainability.



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- 7.1.1 The design context of the three listed bridges that will be replaced as part of the Scheme Development (Ridge Road, Austhorpe Lane and Crawshaw Woods) is described in section 2. This section provides a summary of the proposed design solution and an explanation of how the Scheme Development design is a suitable response to this context, taking account of the consultation feedback summarised in section 5 and the main design principles and concepts set out in section 6.
- 7.1.2 The historical context of this route is particularly significant and through engagement with the local authority and Historic England, design solutions have been developed to respond to the heritage of the structures and the railway. Full details of this heritage context and alternative options considered can be found in the Heritage Statement and Alternative Options Evaluation Studies submitted as part of the applications for listed building consent for Ridge Road, Austhorpe Lane and Crawshaw Woods.
- 7.1.3 These Heritage Statements and Alternative Options Evaluation Studies explain that all of the bridges form part of the original Selby to Leeds Railway, constructed in the early 1830s. In order to achieve the benefits required by TRU, O(H)LE infrastructure is needed to power faster and more environmentally friendly electric trains. All three bridges are not of sufficient height to accommodate the operational minimum requirements for clearance distances between the trains and the O(H)LE and need to be demolished or dismantled and rebuilt.
- 7.1.4 Having considered design context, relevant policy and consultation feedback, and taking into account the statutory requirement of decision makers to have special regard to preserving a listed building or features of special architectural or historic interest it possesses (under the Planning (Listed Buildings and Conversation Areas) Act 1990), the following preferred design options have been chosen.
- 7.1.5 For the replacement Ridge Road Bridge and Austhorpe Lane Bridge, the preferred design solution incorporates a flat concrete deck arrangement with composite main girders and a slender steel arch, anchored into the rock at both ends. New foundations and new abutments would be constructed to support the new superstructure. The design compensates in part for the loss of the Grade II listed asset through the provision of bespoke structure which integrates features from the historic structure and compliments the group value of the Walker and Burges designed bridges.

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- 7.1.6 For the Works to Raise Crawshaw Woods Bridge, the preferred design solution retains the cast iron arch whilst increasing the height of the bridge by 1.4m, in order to achieve functional clearance, adding additional stone courses to the existing abutments and reconstructing the wing walls to achieve the higher level and replacing the parapet with a more sympathetic one.

Use

- 7.1.7 For all three bridges, the proposed design maintains the functionality of the existing bridge, whilst raising the soffit height of the bridges to allow for the installation of O(H)LE, thus meeting the operational and functional requirements of the railway over the lifetime of the Scheme Development.
- 7.1.8 In the case of the Replacement Ridge Road and Austhorpe Lane Bridges, the existing highway access is maintained, with improvements at Austhorpe Lane due to the upgrade from a single lane to two lanes. Both bridges maintain pedestrian access, with footways included at Ridge Road and a footway built into the bridge design at Austhorpe Lane. The Works to Raise Crawshaw Woods Bridge will maintain the existing footpath PRow and access for farm vehicles.

Amount and scale

- 7.1.9 In order to achieve the benefits of the TRU upgrade, the height of the three listed bridges needs to be increased to comply with minimum height requirements above the railway tracks to allow clearance for O(H)LE. The bridge dimensions comply with requirements for minimum width of highway carriageways and safe highway geometry and gradients, as well as the safety of the users to ensure appropriate heights for the new bridge parapets to meet relevant safety standards.
- 7.1.10 The height of the Replacement Ridge Road Bridge from the track level, including parapets, will be increased from 7.98m to 8.88m. The Bridge dimensions in plan will be very similar to the existing, with the deck section being 28.2 metres long and 10 metres wide (including carriageway and two footways) and the parapets will be 1.8 metres high.
- 7.1.11 The height of the Replacement Austhorpe Lane Bridge from the track level, including parapets, will be increased from 7.53m to 8.43m. Following consultation with Leeds City Council, the Bridge will be widened slightly to accommodate two lanes and the dimensions in plan will be slightly larger than existing, with proposed dimensions of 28.7

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metres long (including abutments) and 8.3 metres wide (elevation on north abutment). The new incorporated footway will be 2 metres wide.

- 7.1.12 The Works to Raise Crawshaw Woods Bridge involve increasing the height of bridge from the track level, including parapets, from 8.07m to 9.50m. The plan dimensions will be similar to existing at 18 metres in length (excluding approaches) and 3.1 metres wide.

### Layout

- 7.1.13 The layout design of Replacement Ridge Road and Austhorpe Lane Bridges is constrained by the existing alignment of the public highway and by adjacent land uses. Underlying geological conditions, including old mine workings, also restrict the design layout. In both cases, the layout of the replacement bridges fits in to the existing highway design, with some minor adjustments to the alignment of the Replacement Austhorpe Lane Bridge to accommodate a widened highway carriageway (Figure 20 & 21). Incorporation of the existing footbridge into the highway bridge design will result in an improved, efficient bridge layout.
- 7.1.14 The layout design for the Works to Raise Crawshaw Woods Overbridge will replicate the existing layout, with the addition of small embankments to facilitate access to the Overbridge at a suitable gradient (Figure 22).



Figure 20: Existing and proposed Austhorpe Lane Bridge layout

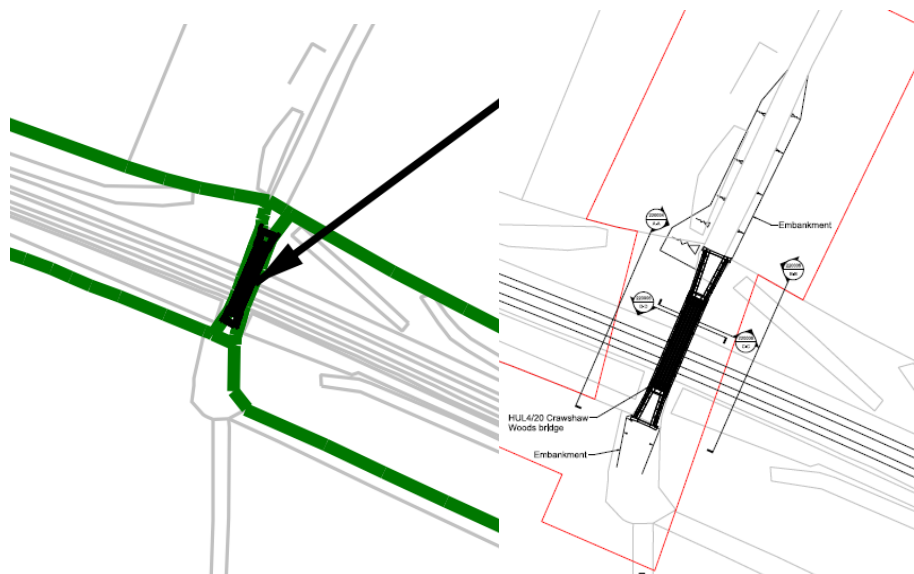
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**Figure 21: Existing and proposed Ridge Road Bridge layout**



**Figure 22: Existing and proposed Crawshaw Woods Bridge layout**

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- 7.1.15 For each of the three listed bridges, exiting access arrangements will be retained, with no adverse impact on accessibility by existing modes of transport or on journey times.
- 7.1.16 At Ridge Road, the two-lane highway carriageway with footway either side will be retained. At Austhorpe Lane, accessibility will be improved by increasing the highway from one to two lanes and pedestrian access currently provided by an adjacent footbridge being incorporated into the highway bridge, on the west side to maintain the existing desire-line. At both bridges, the gradient of the public highway including footpaths either side of the bridge will be built to accessibility standards as required by the local highway authority.
- 7.1.17 At Crawshaw Woods, the existing access arrangements for pedestrians via the Public Right of Way footpath and for farm access, will be maintained by provision of a bridge deck of the same dimensions as existing. In order to tie-in the Public Right of Way either side of the bridge to the increased height of the bridge deck, small embankment works will be constructed on the north and south sides, with gradients no steeper than the existing situation. The southern approach ramp gradient will be 1:22 and the northern ramp gradient will be reinstated as per the existing 1:8 gradient.

Appearance and landscaping

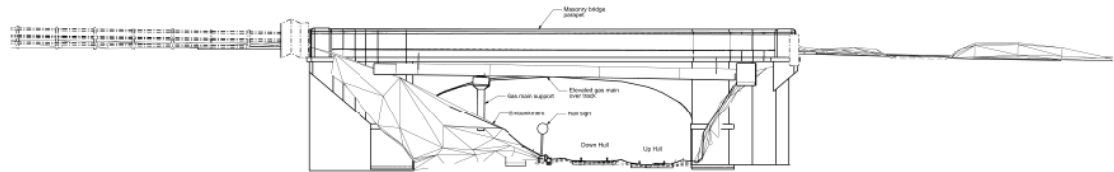
- 7.1.18 The Replacement Ridge Road and Austhorpe Lane Bridges will be built to a design concept agreed with Historic England and Leeds City Council following extensive consultation. The design involves a flat concrete deck arrangement with composite main girders, with a slender steel arch, anchored into the rock at both ends. The parapet, raised to 1.8m high, will be clad in stone reclaimed from the demolition of the existing Bridges and Brady Farm Bridge. The existing coping will be reinstated where practicable, or replaced with a newly fabricated sandstone coping with tooled finish similar to the existing, and for the highway user, the bridge design will read similar to the existing historic design.
- 7.1.19 Figures 23 and 24 show the existing and proposed elevations for the Austhorpe Lane and Ridge Road Bridges respectively, illustrating the visual benefits of removal of the footbridge at Austhorpe Lane and the aesthetic benefit of the steel arch and how this respects and preserves the historic basket arch geometry. Adverse Impacts on views and



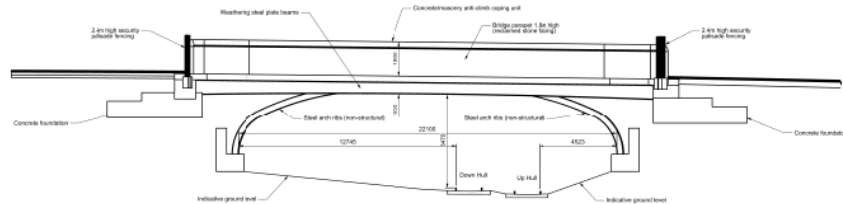
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Elevation A-A Existing: Road Bridge West Elevation  
Scale 1:100



Elevation A-A Proposed: Road Bridge West Elevation  
Scale 1:100

**Figure 24: Existing and proposed elevations – Ridge Road.**

7.1.20 A slender weathered steel arch will be anchored into the rock at both ends. The existing foundations will remain in situ. The overall concept design aims to maintain as much of the heritage value of the existing single basket arch structure of the Bridges as possible, whilst establishing a new modern and coherent design standard for the Leeds – Micklefield Railway which both acknowledges the historic basket arch design conceived for the Railway in the 19th Century and delivers durable, sustainable structures. The existing Ridge Road basket arch design is shown in Figure 25 and the proposed bespoke design is illustrated in Figure 26.

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**Figure 25: Existing Ridge Road basket arch design.**



**Figure 26: Proposed weathered steel arch design.**

- 7.1.21 Unlike the majority of bridges across the line, Crawshaw Woods Overbridge was constructed in cast iron with stone abutments. It was originally one of two across the route, but the other has since been removed.
- 7.1.22 Following extensive consultation with Historic England and Leeds City Council, the Scheme Development involves dismantling of the upper parts of the Overbridge and will involve refurbishment and lifting of the



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cast iron arch to achieve the required O(H)LE clearance. This will retain the cast iron structure. The additional height will be achieved by adding additional stone courses to the existing abutments. The wing walls will also be removed and reconstructed at a higher level.

- 7.1.23 Abutments will be anchored back into underlying strata and extended with new bankseats for the new deck structure. Figure 27 shows the existing and proposed elevation drawings to show the retention of the existing cast iron arch.

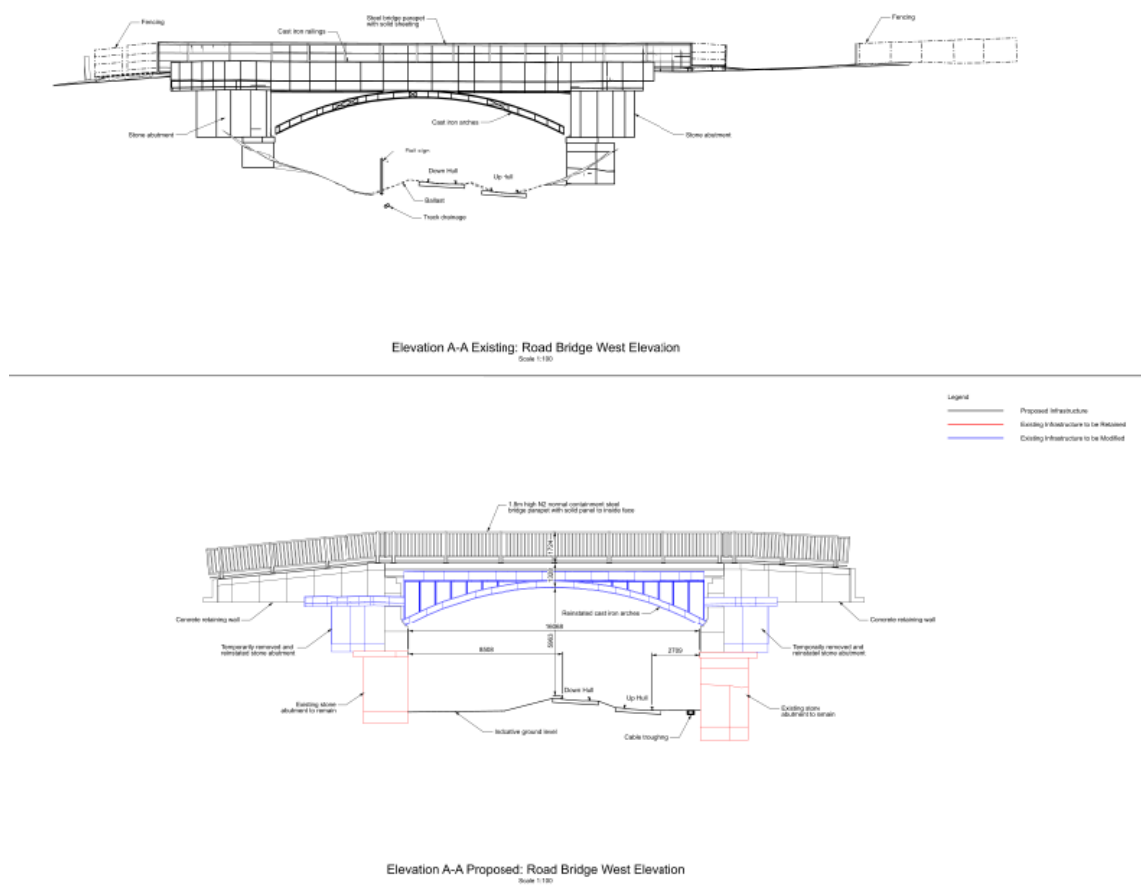


Figure 27: Existing and proposed elevations – Crawshaw Woods Bridge.

- 7.1.24 The modern sheet steel parapets are to be removed and replaced with something more sympathetic. In addition, a new deck will be installed above the restored historic deck to ensure acceptable load bearing. Through careful design and re-using original materials the Scheme Development delivers a sustainable solution that retains most of the historic features of the Bridge and avoids total loss and substantial harm to the historic structure, whilst providing a new durable structure suitable for long-term access across the railway. Given the parapet design improvement and the small overall height increase, adverse

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impacts on views and the landscape will be acceptably minimised. Figure 28 shows the current Crawshaw Woods Bridge design and Figure 29 illustrates the proposed Works to Raise Crawshaw Woods Bridge.



**Figure 28: Existing Crawshaw Woods Bridge**



**Figure 29: Proposed Works to Crawshaw Woods Bridge design.**

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- 8.1.1 The Planning Statement (NR13), in section 4, describes the alternative level crossing closure mitigation options that were considered and why the preferred options were selected. The design context of the New Barrowby Lane Bridge and Peckfield Level Crossing Closure Scheme is described in section 2 of this document. This section of this Design and Access Statement provides an explanation of how the Scheme Development designs are a suitable response to this context, taking account of the main design principles and concepts set out in section 6.

**8.2 New Barrowby Lane Bridge**

- 8.2.1 Taking account of the design context, relevant policy and level crossing survey results and consultation responses, a new ramped bridleway bridge with additional stepped access was selected as the preferred scheme to mitigate the impacts of the level crossing closure. The Public Right of Way bridleway will be diverted over the Bridge.

Use

- 8.2.2 Following a consideration of alternative options, the New Barrowby Lane Bridge was selected as the most appropriate solution to mitigate the level crossing closure by providing an alternative access route across the railway. The Scheme Development meets the long term operational and functional requirements of the railway, to provide access whilst allowing the safe introduction of overhead line equipment (“O(H)LE”).

Amount and scale

- 8.2.3 The design of the New Barrowby Lane Bridge has been dictated primarily by the functional requirement to comply with standards for minimum O(H)LE clearance height above the railway tracks, which determines the minimum bridge soffit height. Added to that are considerations of safe bridge geometry and gradients for cyclists and equestrian users, as well as the safety of users to ensure appropriate heights for the new bridge parapets. Consequently, the Bridge is a large structure, but the Bridge dimensions, as set out below, are the minimum needed to comply with these requirements.

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- 8.2.4 The New Barrowby Lane Bridge will be a 23.5m clear span (length from each side of the railway line), with a proposed bridge deck width of 3.5m. The bridge base (soffit) is approximately 5.5m above the railway. Intermediate landings on the ramps will be every 10m. The parapet heights will be a minimum height of 1.8m which is considered necessary for pedestrian safety, especially to separate pedestrians from overhead electrification lines (see Figure 30). They will also be of a solid infill on the parapets and deck to prevent horse shyness when crossing the railway. The maximum gradient is 1 of 20, designed to be within a range suitable for equestrian users, with horse mounting blocks placed at each end of the bridleway bridge for equestrian users.
- 8.2.5 The parapets on the stepped bridge staircase will be 1.15m high and the width will be 2m. The stepped bridge will have three flights on each side of the railway, each flight has 14 risers and will be 3.9m in length. Intermediate landings will have 2m length.

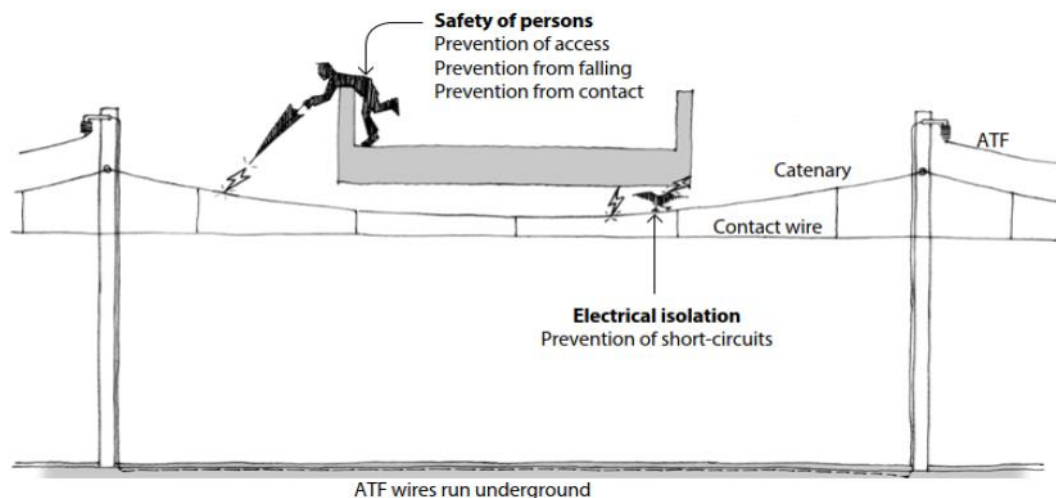


Figure 30: Illustration of public safety on bridges over overhead line electrification (Image credit: Alan Baxter Associates)

### Layout

- 8.2.6 The new Barrowby Lane Bridge will be located approximately 100m to the west of the existing bridleway crossing. A new PRow (bridleway) will be created on Barrowby Lane between the access points to the Barrowby Lane level crossing and the Barrowby Foot level crossing, and the new bridge. The location and layout of the Bridge and PRow diversion has been designed to provide convenient connections to the existing PRow network and to minimise land take (see Figure 31). The choice of location of the Bridge is also limited by the land topography in the vicinity of the level crossing and the presence of residential

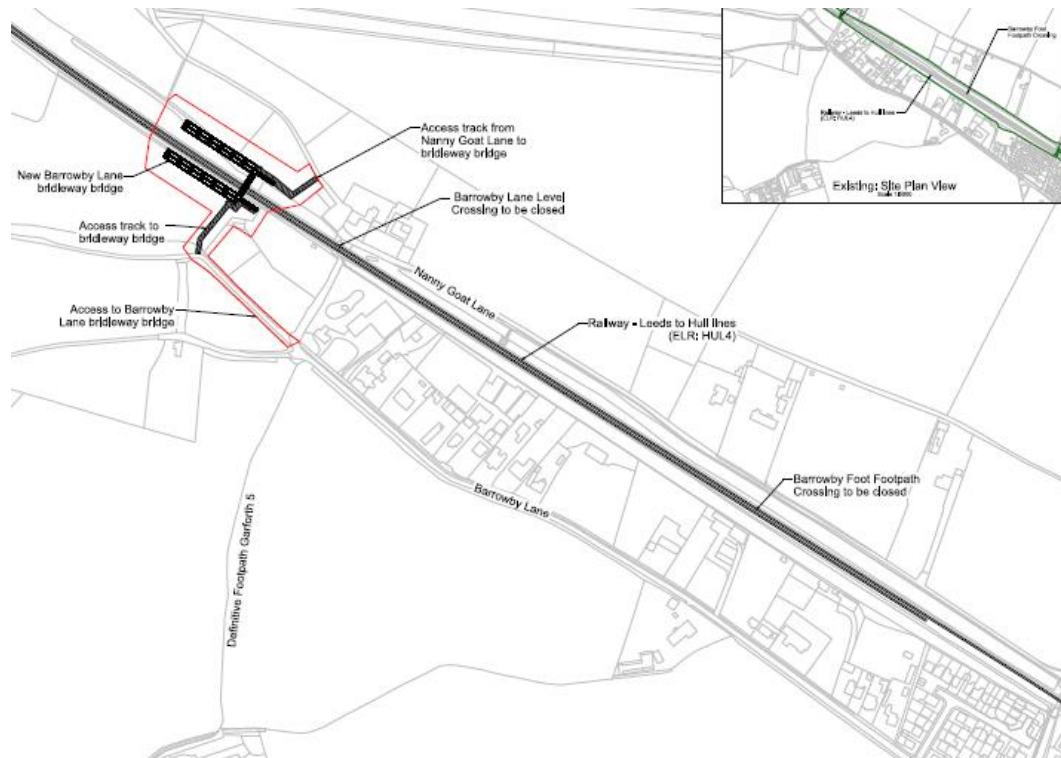


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properties to the east of the Bridge location and the M1 motorway on a viaduct to the west of the Bridge location. Lane between the Bridge location and the motorway is affected by HS2 land safeguarding policy, further restricting locational options.



**Figure 31: General arrangement of New Barrowby Lane Bridge in context of existing Barrowby Lane and Barrowby Foot level crossings.**

### Access

- 8.2.7 The purpose of the New Barrowby Lane Bridge is to mitigate the closure of the at-grade Barrowby Lane bridleway and Barrowby Foot footpath level crossings. The new Barrowby Lane Bridge will protect the PRoW network by providing an accessible, convenient and safe alternative route for cycles, equestrians and other non-motorised users to continue access along the PRoW. The bridge will be designed to accessibility standards applicable for all PRoW users. The new Barrowby Lane Bridge will also include an integrated stepped bridge to provide pedestrians with a shorter access route across the railway line.
- 8.2.8 The bridleway PRoW diversion from the Barrowby Lane level crossing involves a short diversion of up to approximately 600m. The footpath PRoW diversion involves a longer diversion of approximately 1.2km via a route (from north to south) westwards along Nanny Goat Lane and then eastwards along Barrowby Lane. However, this is considered an acceptable diversion given the very low usage of Barrowby Foot level

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crossing and the limited demand for short-distance journeys from one side of the railway to the other, due to the surrounding sparsely populated rural land character and the absence of onward PRow network in any direction other than east-west along Nanny Goat Lane and Barrowby Lane. There is also an alternative access north-south across the railway via Barwick Road underbridge approximately 300m to the east of the Barrowby Foot level crossing.

Appearance and landscaping

- 8.2.9 The New Barrowby Lane Bridge superstructure deck shall consist of truss beam sections supporting cross girders and deck plate. The deck shall bear onto main trestle frame supports. The superstructure material (including deck, staircase and corresponding trestle frame supports and columns) shall be constructed in fibre reinforced polymer material painted in a recessive dark green colour (Figures 32 & 33).



**Figure 32: The New Barrowby Lane Bridge illustration – aerial view**

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**Figure 33: The New Barrowby Lane Bridge illustration – ground level view**

- 8.2.10 The bridge substructure shall consist of piles supporting the main deck trestle frame as well as each column support under the staircase and ramps landings.
- 8.2.11 The New Barrowby Lane Bridge will also include drainage features. The bridge surface water run-off will be achieved through nominal falls to all decks and a weep hole system discharging into splitter pipes.
- 8.2.12 The existing level crossings will be closed and palisade fencing will be introduced to avoid any trespassing onto the railway.
- 8.2.13 The New Barrowby Lane Bridge also incorporates land for landscape and ecological mitigation planting, designed to soften the landscape and visual impact of the Bridge and to assist in the delivery of biodiversity net gain targets.
- 8.2.14 The Environmental Report (NR16) includes an assessment of the landscape and visual impact of the New Barrowby Lane Bridge. The New Barrowby Lane Bridge will sit in landscape characterised as Arable Fringe / Open Arable Farmland, influenced by the railway corridor and M1 motorway context, and will not alter the key characteristics of, or have an adverse effect on, this character, remaining in-context with the receiving landscape. Impacts on views, for example from the nearby PRow and a residential property on Nanny Goat Lane, will be mitigated by the adjacent existing rail corridor and M1 motorway context and proposed planting, which will help to assimilate structure into the receiving landscape over time and filter views of the bridleway bridge and the existing railway line and train movements.



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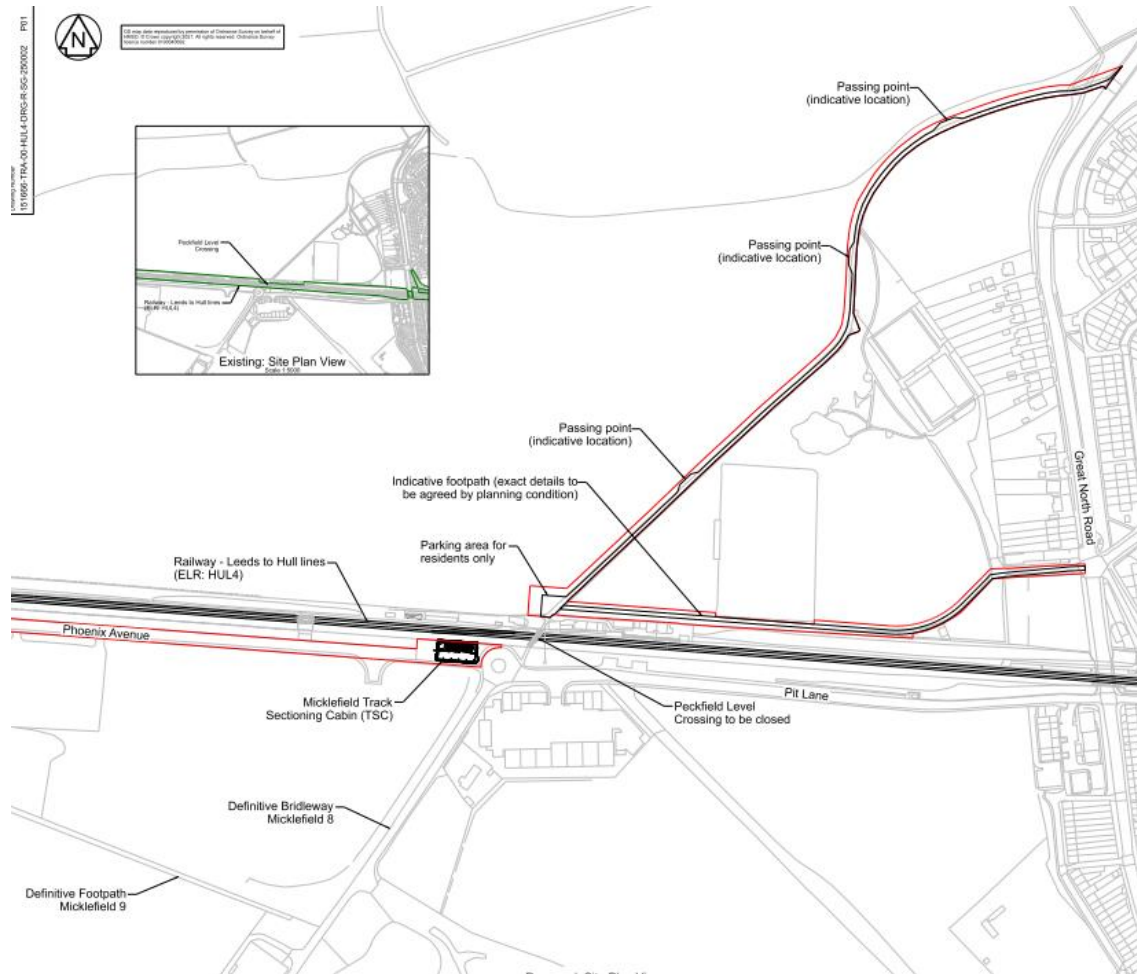
### **8.3 Peckfield Level Crossing Closure**

- 8.3.1 Taking account of the design context, relevant policy and the level crossing survey results and consultation responses, the preferred design solution involves the creation of a new public footpath and improvements to an access track to mitigate the level crossing closure.
- 8.3.2 The operational and functional requirements for the Scheme Development are to close Peckfield Level Crossing and provide suitable mitigation for loss of level access across the railway, to reduce operational maintenance costs, and to be feasible and deliverable from an economic and engineering perspective.
- 8.3.3 The Peckfield Level Crossing Closure scheme involves the following listed components, as illustrated in Figure 34.
- The closure of the Peckfield Level Crossing and extinguishment of the PRoW (bridleway) over the crossing.
  - The creation of a new public right of way footpath between the Great North Road and Pit Lane to the north of the Railway to provide pedestrian access to residential properties north of Peckfield Level Crossing and adjacent to the railway (the Railway Properties) and a link to the PRoW (Micklefield 8) on Lower Peckfield Lane.
  - The Lower Peckfield Lane Highway Works to upgrade Pit Lane / Lower Peckfield Lane to the north of the railway (including three passing points) and to provide a small car parking area for residents of Railway
  - Properties.

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**Figure 34: The Peckfield Level Crossing Closure Scheme**

## Use

- 8.3.4 Following a consideration of alternative options, which is described in the Planning Statement (NR14) the Peckfield Level Crossing Closure scheme was selected as the most appropriate solution to mitigate the level crossing closure and extinguishment of the PRow bridleway over the Peckfield Level Crossing (Micklefield 8). The scheme meets the long term operational and functional requirements of the railway via a low land use impact scheme, involving minimal development and land take.

## Amount and scale

- 8.3.5 The Peckfield Level Crossing Closure scheme involves very limited physical development. Construction work is limited to the creation of a new footpath or bridleway to standard dimensions (typically 2 – 4 m wide respectively) along the southern boundary of the Micklefield Recreation Ground and the Lower Peckfield Lane Highway Works,

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involving resurfacing of Pit Lane / Lower Peckfield Lane to the north of the railway, the creation of up to three vehicular passing points (approximately 5 metres long) and a new parking / turning area at the southern end of Pit Lane / Lower Peckfield Lane, adjacent to the Railway Properties. The LCC Waste Disposal Authority has been consulted on the dimensions of the passing points and turning area to ensure that these elements offer an improvement on existing refuse collection arrangements.

- 8.3.6 The scheme compares favourably with other options on environment and sustainability. On land and property, the scheme has minimal land take and low impact on agricultural land.

#### Layout

- 8.3.7 The Peckfield Level Crossing Closure scheme layout is determined by the need to create a convenient route between the Railway Properties and Micklefield village and by the provision of an appropriately sized vehicular parking and turning space, adjacent to the Railway Properties, to include provision for sufficient parking spaces for the Railway Properties and access by delivery vans and refuse collection vehicles. The carefully considered design layout also minimises the impact private land, including best and most versatile (BMV) agricultural land in the vicinity of the level crossing.

#### Access

- 8.3.1 Based on extensive Peckfield Level Crossing user survey information collected over a ten-year period, it can be concluded that daily pedestrian user levels are low, usage by persons of restricted mobility is very low (with none recorded in the most recent survey) and there are no survey records of equestrian use. These usage figures do not justify the construction of a ramped bridleway bridge, taking account of the environmental impacts, impact on land and the significant costs involved.
- 8.3.1 The alternative footpath route involves a worst-case diversion of approximately 900m via level ground on existing footways / a new footpath, to get from one side of the railway to the other at the point that the Pit Lane Bridleway crosses the railway. However, survey data suggests most level crossing users are local people who use the crossing for dog walking and most diversionary routes will be substantially less than the worst case. Level crossing user survey data suggests, with mitigation scheme in place, this is an acceptable

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alternative access route, given that level footpath connectivity between Railway Properties, the Recreation Ground and Micklefield is improved through the provision of a new PRow.

- 8.3.2 Connectivity for longer distance journeys or cyclists is maintained via an alternative route which involves a short distance (approximately 300m) diversion in the context of longer journeys. Overall, the Peckfield Level Crossing Closure Scheme removes a safety risk on the railway and provides a new connection to and protects the PRow network.
- 8.3.3 Network Rail also considered a stepped footbridge option, but this option shares many of the disbenefits of the ramped bridleway bridge option. The stepped bridge would involve a pedestrian only (not fully accessible) PRow diversion of approximately 300m, compared with the level preferred design solution diversion of between 300m and 900m, and this difference is not considered significant in the context of the predominantly recreational use of the Level Crossing. Additionally, a stepped footbridge would not provide the preferred design solution benefit of a new direct footpath access into Micklefield for the Railway Properties, which is shorter and more convenient than the existing arrangement requiring passage over the Peckfield Level Crossing

Appearance and landscaping

- 8.3.4 No above-ground built development is proposed, therefore the Peckfield Level Crossing Closure scheme will not cause any negative impact on views or the surrounding landscape. The existing level crossing will be closed and palisade fencing will be introduced to avoid any trespassing onto the railway.

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### 9. DESIGN APPRAISAL: MICKLEFIELD TSC

- 9.1.1 The Micklefield TSC will be a simple, functional single storey building, with vehicular access and parking. The design of the TSC has considered safety, security, operational suitability and impact on any relevant railway neighbours.

#### Use

- 9.1.2 The Micklefield TSC houses plant and equipment to enable the electrification of the railway line, safely regulating the power supply to the overhead electric wires in the local area.

#### Amount and scale

- 9.1.3 The Micklefield TSC will be 4 metres wide, 18.5 metres long and 3.8 metres high to the apex of 5° duo pitched roof supported on 19 metres x 4.5 metres x 0.45 metres deep foundation. There will be a 2.4 metre security grade palisade fence with rotating anti climb spikes for security. The dimensions of the TSC and compound are the minimum required for its functional and operational use.

#### Layout

- 9.1.4 The Micklefield TSC will be located in an area of land on the north side of Phoenix Avenue, with vehicular parking for service vehicles only. The TSC and compound will be orientated on an east-west alignment to fit the narrow dimensions of the land available (Figure 35).

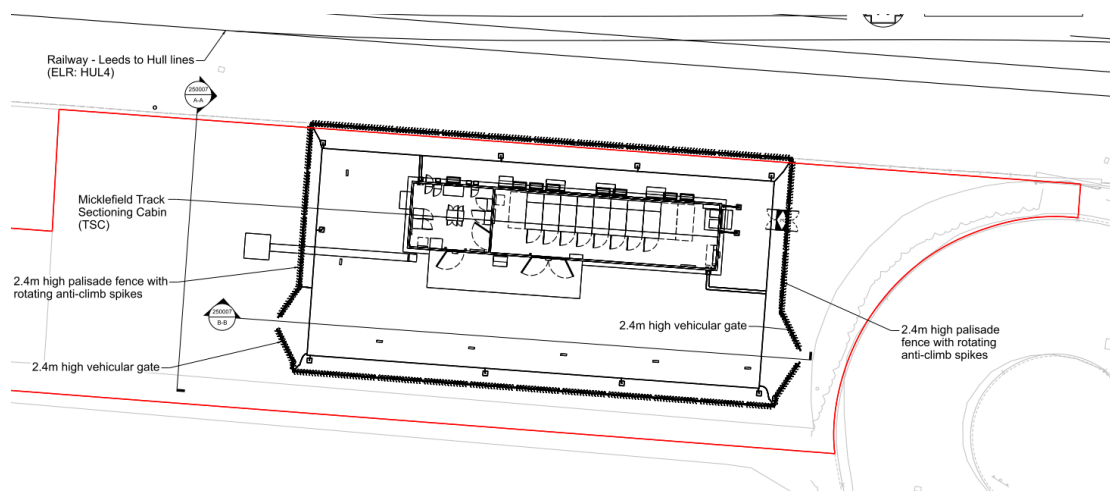


Figure 35: Micklefield TSC Site Layout

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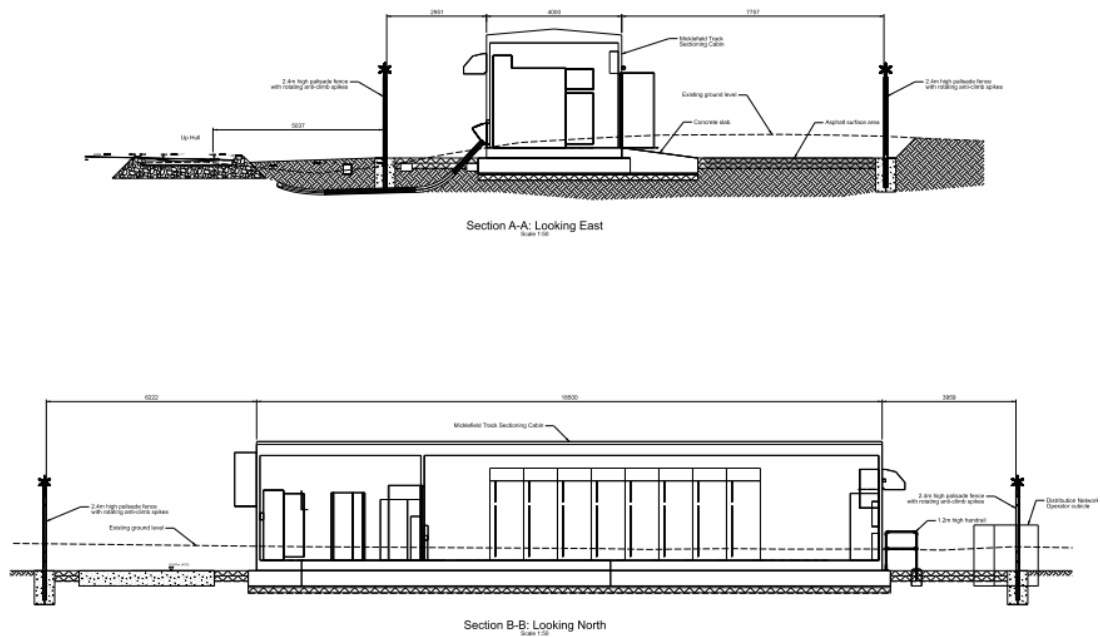
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### Access

- 9.1.5 Access is proposed from Pit Lane and Phoenix Avenue and require permanent access rights along Phoenix Avenue from Ridge Road (A656). The Micklefield TSC will have private access via two double leaf gates for vehicle entry on both Phoenix Avenue to the west and Pit Lane to the east. The TSC will not be publicly accessible.

### Appearance and landscaping

- 9.1.6 The TSC will be either of brick or steel frame with cladding construction. The compound will be fenced using steel palisade fencing, 1.8m high painted green. No landscaping will be incorporated within the compound site as planting cannot be accommodated within the space available. Figure 36 shows elevations of the proposed TSC.



**Figure 36: Micklefield TSC Elevations**

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- 10.1.1 The Kirkgate to Marsh Lane Land includes the installation of small-scale electrification and signalling infrastructure mounted on metal staging structures between Kirkgate Viaduct (HUL4/47) and Marsh Lane Viaduct (HUL4/44) at Penny Pocket Park in Leeds City centre (the 'Kirkgate to Marsh Lane Land'). Design and location options are limited by operational railway and site constraints, as outlined below and the preferred design solution has incorporated these matters alongside consultation feedback and the sensitive local Conservation Area and listed building setting.

Use

- 10.1.2 The Kirkgate to Marsh Lane Land infrastructure will enable the electrification of the railway line and installation of signalling infrastructure.

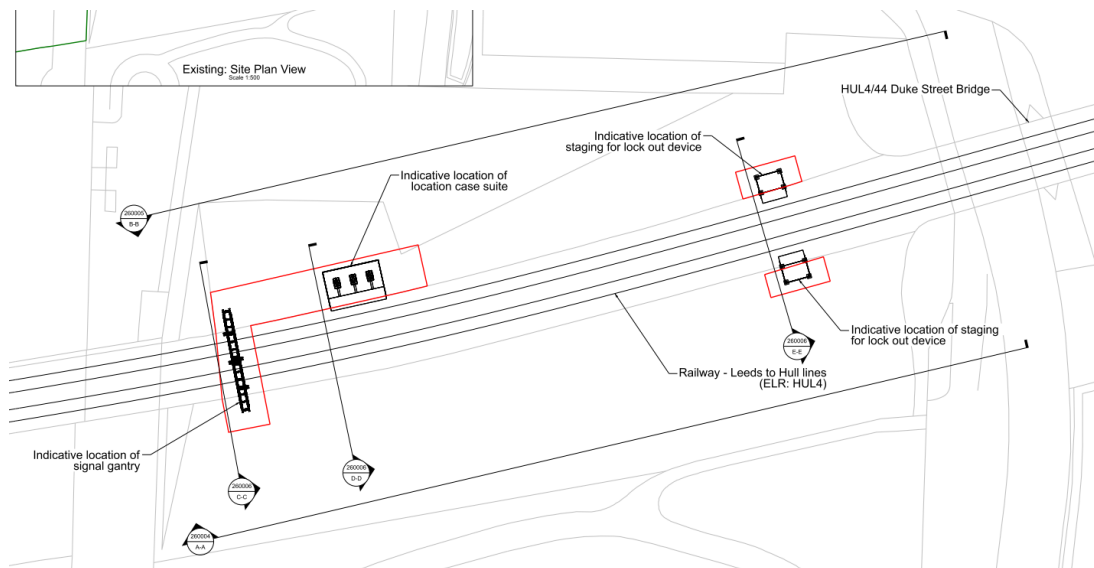
Amount and scale

- 10.1.3 The infrastructure involves small metal clad box units which house operational equipment. These boxes are sized to fit the equipment and to allow maintenance access only, being approximately 11m x 6m and 7m x 4m. The replacement signalling gantry will be sized in accordance with railway design standards focussed on operational railway safety.
- 10.1.4 The Kirkgate to Marsh Lane Land will include equipment which will occupy is likely to occupy four separate locations adjacent to the railway at the top of the railway embankment, totalling less than 190 square metres, as shown in Figure 37.
- 10.1.5 The Kirkgate to Marsh Lane Land is required to allow for piled foundations for the metal staging structures outside the railway land boundary.

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**Figure 37: General Arrangement of the Kirkgate to Marsh Lane Land**

### Layout

10.1.6 The Kirkgate to Marsh Lane Land will be located east of Leeds railway station; Grid Reference: SE 30753 33416; between Ch. 32450 and 32000, within a 100m x 5mx area on either side of the railway. The precise layout of the equipment will be agreed at detailed design stage, taking account of operational requirements and environmental issues, such as aiming to minimise tree or vegetation loss, impact on users of the public park and the setting of the Conservation Area and nearby Grade I listed Leeds Minster.

### Access

10.1.7 Construction will be undertaken from the railway, requiring no access via non-railway land. The Kirkgate to Marsh Lane Land will not be publicly accessible.

### Appearance and landscaping

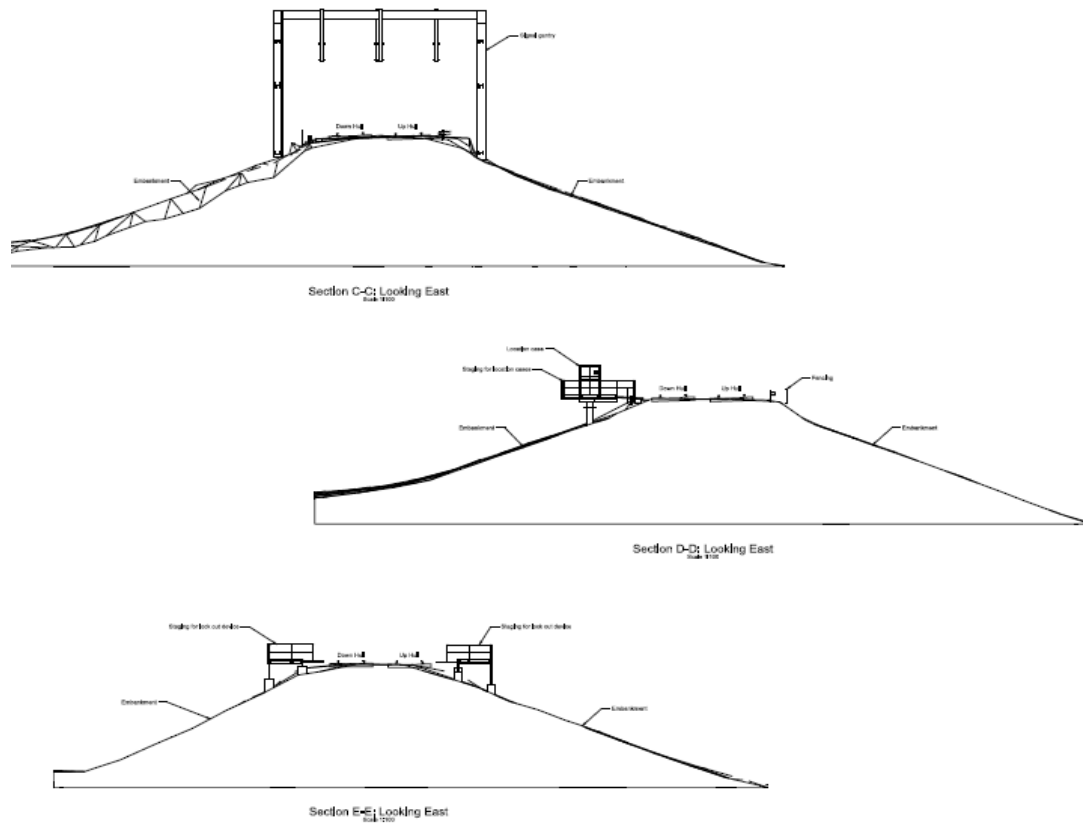
10.1.8 The equipment proposed will be standard grey metal cabinets and standard metal signal gantry structure, therefore following design typology of railway equipment in the vicinity, as illustrated in Figure 38. No landscaping will be incorporated within the area as planting cannot be accommodated within the space available, but the precise locations of the equipment within the Kirkgate to Marsh Lane Land will be carefully considered at detailed design stage to minimise loss of existing vegetation and impact on users of the Penny Pocket Park.



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**Figure 38: Elevations of the Kirkgate to Marsh Lane Land Equipment**

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### 11. CONCLUSION

- 11.1.1 The Network Rail (Leeds to Micklefield Enhancement) Order Scheme Development forms part of the eastern section of the wider Transpennine Route Upgrade (“TRU”) between Leeds and York. The TRU will deliver faster and more frequent rail services, increased passenger capacity and improved connectivity and will support economic growth in the North and deliver real benefits for passengers, communities and freight services.
- 11.1.2 This design and access appraisal has demonstrated that the Scheme Development complies with a range of **main design principles and concepts** found in relevant National and Local planning policies, as summarised in section 6 and highlighted in bold text here. The Scheme Development design has also been thoroughly informed by feedback from local and technical consultation.
- 11.1.3 The Scheme Development responds to the **operational and functional requirements of the railway** by providing safe, well-functioning railway infrastructure, taking account of the important issues of **access for maintenance and inspection and materials durability** over the lifetime of the Scheme.
- 11.1.4 On **sustainability**, the Scheme Development is an integral part of TRU, which includes electrification that will deliver predicted carbon reduction of 6.6 million tonnes over the TRU 60-year design life. Sustainability has also been a main consideration shaping the Scheme Development design, including the specification of more sustainable materials and designs to minimise maintenance requirements. Adaptation to future needs has also been a key consideration in the design, with measures specified in a Weather and Climate Change Impact Assessment being built into the design where practicable.
- 11.1.5 Although the location and design of the Scheme Development is largely dictated by functional railway infrastructure requirements and safeguarding for future infrastructure, the design responds to **site constraints and the surrounding local context** and local needs where appropriate. This includes designs that make **efficient use of land**, minimising built development on land outside the operational railway boundary, in-turn minimising impacts on landowners, businesses and local communities.
- 11.1.6 The main built elements of the Scheme Development are Replacement Austhorpe Lane and Ridge Road Bridges and the Works to Raise Crawshaw Woods Bridge. Great care has been taken to produce **high**

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**quality bespoke designs that respect the heritage** of existing Grade II listed structures and incorporate original material to minimise and offset harm.

- 11.1.7 At the same time the Scheme Development is sympathetic to the local **landscape and townscape** through good design. For example, the New Barrowby Lane Bridge incorporates land for landscape and ecological mitigation planting, which will minimise landscape and visual impact and assist in the delivery of **biodiversity net gain** targets.
- 11.1.8 Where Scheme Development elements carry a public highway or public right of way over the railway, **accessibility** will be maintained, either via an appropriate direct replacement (in the case of highways built to adoptable standards) or a suitable and convenient alternative route, in the case of the New Barrowby Lane Bridge and the new PRow at Peckfield.
- 11.1.9 Overall, this Design and Access Statement demonstrates that the Scheme Development design is appropriate in terms of land use, scale, layout, access and appearance in the context of its required railway infrastructure functionality and the local environment and community.