Environmental Statement

Volume 2i: Scheme-wide Assessment

Chapter 10: Landscape, townscape and visual

Contents

10. LANDSCAPE, TOWNSCAPE AND VISUAL 10-3

Summary of principal findings 10-3

10.1 Introduction 10-5

10.2 Legislative and policy context 10-5

10.3 Assessment methodology 10-11

10.4 Landscape and visual baseline 10-21

10.5 Potential effects 10-46

10.6 Mitigation measures 10-93

10.7 Residual effects 10-96

10.8 Cumulative effects 10-108

Tables

Table 10-1 Landscape value criteria 10-15
Table 10-2 Landscape sensitivity criteria 10-16
Table 10-3 Visual Sensitivity criteria 10-16
Table 10-4 Magnitude criteria 10-18
Table 10-5 Significance of effect matrix 10-19
Table 10-6 Description of significance of effects 10-20
Table 10-7 Description of views 10-37
Table 10-8 Summary of potential Scheme-wide effects during construction 10-49
Table 10-9 Summary of potential Scheme-wide effects during the operational phase (Year 1) 10-62
Table 10-10 Summary of potential visual Scheme-wide effects during the operational phase (Year 15) 10-72
Table 10-11 Summary of potential effects of the construction of OLE on residential receptors during the construction phase 10-86
Table 10-12 Potential operational effects of OLE on representative residential receptors during the operational phase 10-89
Table 10-13 Summary of mitigation and compensation measures during construction 10-94
Table 10-14 Summary of mitigation and compensation measures during operation at Year 1 and Year 15 10-94
Table 10-15 Summary of residual effects 10-96
Table 10-16 Significant residual effects on residential receptors 10-102
Table 10-17 Potential inter-Scheme cumulative effects 10-108

10. LANDSCAPE, TOWNSCAPE AND VISUAL

Summary of principal findings

This chapter presents the landscape, townscape and visual impact assessment (LTVIA) for the construction and operation of the Huddersfield to Westtown (Dewsbury) section of the Transpennine Route Upgrade (TRU) Programme. It covers the assessment of the entirety of the Huddersfield to Westtown (Dewsbury) Route (hereafter referred to as "the Scheme"). The landscape, townscape and visual assessment is further broken down into six Route Section Assessments in Volume 2ii of this Environmental Statement (ES) which provide additional detail to this chapter.

The Scheme is in accordance with relevant landscape planning policy. It would provide necessary infrastructure to facilitate the spatial strategy, as noted in policy LP4 Providing Infrastructure of the Kirklees Local Plan (KLP). As per policy LP19 of the KLP, the Scheme would have regard for potential environmental constraints and would address potential impacts via appropriate mitigation measures from a landscape and visual perspective.

For this assessment, adverse effects are considered to be changes that are detrimental in terms of reducing the quality of the landscape/townscape resource or a receptor's views. Beneficial effects are changes that enhance the quality of the landscape/townscape resource or a receptor's views. Effects which are considered to be significant in EIA terms are those which are 'Moderate' or 'Major'.

During the construction phase, the local landscape and townscape character would experience adverse effects as a result of the Scheme, which are considered significant for this assessment. This is due to the construction work taking place on and near the railway line and includes the provision of compounds to facilitate the work. Vegetation clearance along the railway and moving plant and machinery would introduce detracting features into the character areas. These elements would be temporary and would not have detrimental effect on the overall permanent character of the local landscape and townscape.

Due to the introduction of partially constructed infrastructure as a result of the works, several viewpoints would be adversely affected by the Scheme during the construction phase. While close range views would experience the most noticeable and severe effects, mid-range and long-distance views would also be affected. Construction activity taking place on the railway or increased traffic to the Scheme would be noticeable from these locations. However, these effects would be localised and temporary and would not affect the overall visual amenity of the Scheme.

During the operational phase, there would be limited effect on the local landscape and townscape character. This is due to the proposed infrastructure being in keeping with the existing built form and infrastructure, which ensures that the integrity of the existing character remains intact. The majority of the landscape and townscape character areas are considered to remain in accordance with their baseline condition.

During the operational phase at Year 1, applied mitigation measures such as additional and replacement planting would be noticeable. However, the mitigating effects would be limited since the vegetation would not be fully developed and matured at this stage. Close and mid-range views would experience adverse effects as a result of the Scheme. However, effects would be localised and would not impact the overall visual amenity of the Scheme. During the operational phase at Year 15, any mitigation planting would be mature and would provide screening effects to soften the effects on certain areas of the Scheme. Close-range views would still experience the most considerable effects at this stage. The visual effects would remain localised and would have limited effect on the visual amenity of the Scheme.

Overall, the Scheme would introduce new railway infrastructure along the railway line. Long distance and mid-range views would experience limited effects as a result of the Scheme. Close-range views are assessed as experiencing the most noticeable and significant effects. Since the Scheme is in keeping with the existing railway infrastructure and context, it is considered to have limited adverse effects on the surrounding landscape character and visual amenity.

10.1 Introduction

10.1.1 This chapter presents the assessment of landscape, townscape and visual effects associated with the construction and operation of the Huddersfield to Westtown (Dewsbury) section of the Transpennine Route Upgrade (TRU) Programme. This chapter covers the assessment of the entirety of the Huddersfield to Westtown (Dewsbury) Route (herein referred to as the 'Scheme'). The landscape, townscape and visual assessment is further broken down into six Route Section Assessments in Volume 2ii of this Environmental Statement (ES) which provide additional detail to this chapter.

10.1.2 This chapter is set out as follows:

- Legislative and policy context – relevant international, national and local policy requirements, legal requirements and guidance which have been used to define the assessment approach are outlined;
- Assessment methodology – the methodology the assessment follows is defined including the justification for the study area and the approach for determining significance of effects;
- Baseline – a summary of the landscape, townscape and visual baseline within the study area is provided;
- Potential effects – the potential impacts and effects (both beneficial and adverse) during construction and operation are characterised;
- Mitigation measures – agreed avoidance, mitigation, compensation and enhancement measures are described;
- Residual effects – the significance of residual effects (both beneficial and adverse) following the implementation of mitigation measures are assessed; and
- Cumulative effects - the potential likely significant cumulative effects of the Scheme are described and assessed.

10.1.3 A detailed description of the Scheme is provided in Chapter 2 (Scheme description) in Volume 2i of the ES and all appendices and figures referred to in this chapter are provided in Volumes 3 and 4 of this ES respectively.

10.1.4 This chapter outlines the findings of a desktop study and field assessments. It describes the relevant landscape planning context as well as other designations or environmental constraints relevant to the Scheme. It then describes the landscape and townscape character and visual amenity of the surroundings and analyses the key views towards the Scheme and the potential effects which would result as a consequence of the Scheme.

10.2 Legislative and policy context

National

National Planning Policy Framework (2019)

10.2.1 The National Planning Policy Framework (NPPF) sets out the Government's planning policies for England and how these are expected to be applied. It sets out the Government's requirements for the planning system only to the extent that it is relevant, proportionate and necessary to do so. It provides a framework within which local people and their accountable councils can produce their own distinctive local and neighbourhood plans, which reflect the needs and priorities of their communities.

10.2.2 **Section 2** of the NPPF highlights the importance of achieving sustainable development with three overarching objectives including an environmental objective. New development needs "to contribute to protecting and enhancing our natural, built and historic environment".

10.2.3 **Section 8** of the NPPF, para 96 identifies the requirement for "access to a network of high-quality open spaces".

10.2.4 **Section 12** of the NPPF identifies 'good design' as a key aspect of sustainable development which should create "better places in which to live and work". The guidance sets out six objectives/ principles that planning policies and decisions should ensure that proposed developments:

"a) 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"

"b) are visually attractive as a result of good architecture, layout and appropriate and effective landscaping"

"c) 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)"

"d) establish or maintain a strong sense of place, using the arrangement of streets, spaces, building types and materials to create attractive, welcoming and distinctive places to live, work and visit"

"e) optimise the potential of the site to accommodate and sustain an appropriate amount and mix of development (including green and other public space) and support local facilities and transport networks"

"f) create places that are safe, inclusive and accessible and which promote health and well-being, with a high standard of amenity for existing and future users; and where crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion and resilience."

10.2.5 **Paragraph 128** states that "design quality should be considered throughout the evolution and assessment of individual proposals".

10.2.6 **Paragraph 130** infers that "poor design" of a development would be refused specifically those that "fail to take the opportunities available for improving the character and quality of an area and the way it functions, taking into account any local design standards or style guides in plans or supplementary planning documents."

10.2.7 Within Section 16 Conserving and enhancing the historic environment, the NPPF suggests that the planning system should contribute to and enhance the historic environment by taking into account "*the desirability of new development making a positive contribution to local character and distinctiveness"* and "*opportunities to draw on the contribution made by the historic environment to the character of a place".*

10.2.8 **Section 15** of the NPPF focuses on opportunities for development to enhance the natural environment. **Paragraph 170** sets out approaches to promoting the natural environment.

a) "protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan)"

b) "recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland"

d) "minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures"

e) *"preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability."*

National Policy Statement for National Networks (December 2014)

10.2.9 The National Policy Statement for National Networks (NPS) sets out government policies for nationally significant infrastructure rail and road projects in England. In England, the NPS may also be a material consideration in decision making for applications that fall under the Town and Country Planning Act 1990 or any successor legislation. Whilst the Scheme is seeking consent under the Transport and Works Act, given the nature of the Scheme as rail infrastructure it is considered appropriate that weight should be given to the principles set out in the NPS.

10.2.10 Policies within the NPS considered to be generally relevant for the landscape/townscape and visual assessment process, are summarised as follows.

10.2.11 **Section 2** focuses on the need for the development of national networks. It identifies that the government will deliver high-quality infrastructure projects and that it will deliver:

- "Networks with the capacity and connectivity and resilience to support national and local economic activity and facilitate growth and create jobs;
- Networks which support the delivery of environmental goals and the move to a low carbon economy; and
- Networks which join up our communities and link effectively to each other."

10.2.12 **Section 3** Wider Government Policy on the national networks highlights the necessity to see infrastructure projects in a wider context. It identifies environmental and social impacts as key elements to be considered. **Paragraph 3.5** states that enhancing national infrastructure networks should consider *"reconnecting habitats and ecosystems, enhancing the settings of historic and cultural heritage features, respecting and enhancing the landscape character."*

10.2.13 **Section 4** Assessment principles outlines how development proposals relating to national infrastructure projects should be decided. **Paragraph 4.3** states that the following should be taken into account when considering development proposals:

- "its potential benefits, including the facilitation of economic development, including job creation, housing and environmental improvement, and any long-term or wider benefits
- its potential adverse impacts, including any long-term and cumulative adverse impacts, as well as any measures to avoid, reduce or compensate for any adverse impacts."

10.2.14 **Paragraph 4.4** notes that *"environmental […] benefits and adverse impacts, should be considered* at national, regional and local levels".

10.2.15 **Paragraph 4.29** states that "visual appearance should be a key factor in considering the design of new infrastructure, as well as functionality, fitness for purpose, sustainability and cost." It further notes that "good design" should be applied to national network projects and "should therefore produce sustainable infrastructure sensitive to place."

10.2.16 **Paragraph 4.35** notes that good design could be demonstrated by appropriate "design measures relative to existing landscape and historical character and function, landscape permeability, landform and vegetation."

10.2.17 **Section 5** Generic impacts highlights impacts that potentially affect the majority of infrastructure projects. **Paragraph 5.36** outlines mitigation measures that would be considered appropriate for impacts on biodiversity and ecological conservation. These include:

- "during construction, they will seek to ensure that activities will be confined to the minimum areas required for the works";
- "habitats will, where practicable, be restored after construction works have finished";
- "developments will be designed and landscaped to provide green corridors and minimise habitat fragmentation where reasonable"; and
- "opportunities will be taken to enhance existing habitats and, where practicable, to create new habitats of value within the site landscaping proposals".

10.2.18 **Paragraph 5.143** identifies the potential for infrastructure projects to affect the landscape character and visual amenity. It states that the "*landscape and visual effects […] will vary on a case by case basis*".

10.2.19 **Paragraph 5.149** states that both *"the nature of the existing landscape likely to be affected and nature of the effect likely to occur*" are relevant and should be considered when assessing infrastructure proposals.

10.2.20 **Paragraph 5.150** states that "great weight should be given to conserving landscape and scenic beauty in nationally designated areas".

10.2.21 **Paragraph 5.156** notes the significance of "*local landscapes*" and identifies these as potential "*highly valued*" spaces. Particular consideration should be given to areas where "*a local development document […] has policies based on landscape character assessment*."

10.2.22 **Paragraph 5.160** outlines the potential mitigation measures for effects on the landscape. It states that "landscape and visual effects may be minimised through appropriate siting of infrastructure, design [...] and landscaping Schemes." For infrastructure projects, careful consideration should be given to "materials and designs".

Local

10.2.23 The Scheme that is being assessed in this report is located entirely within Kirklees Council's District Boundary. The 2 km study area (as defined in paragraph 10.4.1) does include land within the bordering districts of Wakefield and Calderdale, however given the small extent of encroachment compared to the overall Scheme it is considered appropriate to focus on local planning policy for Kirklees only.

Kirklees Local Plan – Strategy and Policies (2019)[1]

10.2.24 The Kirklees Local Plan (KLP) sets out policies and strategies for the development of the administrative area of Kirklees Council. It outlines the vision and strategic objectives of the administrative region until 2031. The vision, as outlined in **Section 4,** states that… "*local character and distinctiveness of Kirklees and its places will be retained."* It further notes that "*Places will be well-connected encouraging sustainable travel".*

10.2.25 **Section 2** of the KLP focuses on achieving sustainable development. **Policy LP1 Presumption in favour of sustainable development** states that the council will favour development that "*improves the economic, social and environmental conditions in the area"*.

10.2.26 **Section 5** highlights the importance of place making by "shaping local identity". **Policy LP2 Place Shaping,** notes that "All development proposals should seek to build on the strengths, opportunities and help address challenges identified in the Local Plan, in order to protect and enhance the qualities which contribute to the character of these places."

[1] Kirklees Council 2019, Kirklees Local Plan – Strategy and Policies (Adopted 2019), Kirklees

10.2.27 **Section 6** focuses on delivering growth and sustainable development. **Policy LP3 Location of New Development** states that "development should reflect:

a) Place shaping strengths
b) Spatial priorities for urban renaissance and regeneration."

10.2.28 It further notes that Development will be permitted if it meets the following criteria:

"e) ensuring that proposals have regard to connecting links to existing green and blue infrastructure networks
f) co-ordinating housing and employment land delivery with the provision of new infrastructure
g) providing access to a range of transport choices and access to local services."

10.2.29 **Policy LP4 Providing Infrastructure** states that "the council will […] bring forward necessary and proportionate essential and desirable infrastructure that is required in order to deliver the spatial strategy as set out in the Local Plan."

10.2.30 **Policy LP19 Strategic Transport Infrastructure** states that the council is committed to promoting the development of strategic transport infrastructure. It highlights the necessity to protect the environment and that transport proposals "*will have regard to the constraints and considerations as set out in Local Plan such as impact on designated heritage assets and any other environmental impacts."*

10.2.31 **Policy LP24 Design** states that "*good design should be at the core of all proposals*". Good design should be promoted by ensuring:

a) "The form, scale, layout and details of all development respects and enhances the character of the townscape, heritage assets and landscapes;
f) the needs of a range of different users are met, including disabled people, older people and families with small children to create accessible and inclusive spaces
h) development contributes towards enhancement of the natural environment, supports biodiversity and connects to and enhances ecological networks and green infrastructure
i) the retention of valuable or important trees and when appropriate the planting of new trees and other landscaping to maximise visual amenity and environmental benefits."

10.2.32 **Section 13** focuses on the natural environment. **Policy LP31 Strategic Green Infrastructure Network** states that the council will give priority "*to safeguarding and enhancing green infrastructure networks."* Proposals located within or in close proximity to strategic green infrastructure "*should ensure:*

a. "the function and connectivity of green infrastructure networks and assets are retained or replaced"
b. new or enhanced green infrastructure is designed and integrated into the development scheme where appropriate, including natural green space, woodland and street trees"
c. (iv) "the protection and enhancement of biodiversity and ecological links."

10.2.33 **Policy LP32 Landscape** states that development proposals "should be designed to take into account and seek to enhance the landscape character of the area." Proposals should consider:

d. "the setting of settlements and buildings within the landscape
e. the patterns of woodland, trees and field boundaries".

10.2.34 **Policy LP 33 Trees** states that "proposals should normally retain any valuable or important trees where they make a contribution to public amenity, the distinctiveness of a specific location or contribute to the environment."

10.2.35 **Section 18, Environmental Protection** highlights policies regarding the protection and improvement of the environment.

10.2.36 **Policy LP52 Protection and improvement of environmental quality** state that "proposals which have the potential to increase pollution […] must be accompanied by evidence to show that the impacts have been evaluated and measures have been incorporated to prevent or reduce the pollution". The policy further says that "where possible, all new development should improve the existing environment".

10.2.37 **Section 19** focuses on Green Belt and open space. **Policy LP61 Urban Green Space** identifies circumstances under which it is appropriate to develop existing urban green space:

a) *"an assessment shows the open space is clearly no longer required to meet local needs for open space, sport or recreational facilities and does not make an important contribution in terms of visual amenity, landscape or biodiversity value; or*
b) *replacement open space, sport or recreation facilities which are equivalent or better in size and quality are provided elsewhere within an easily accessible location for existing and potential new users; or*
c) *the proposal is for an alternative open space, sport or recreation use that is needed to help address identified deficiencies and clearly outweighs the loss of the existing green space."*

Kirklees Local Plan - Allocations and Designations (2019)[2]

10.2.38 The Allocations and Designations document forms the second part of the KLP. It outlines the designations and allocated sites that have been identified for the plan period.

10.2.39 In **Section 7 Transport**, infrastructure improvement schemes are highlighted. **Site TS7** identifies various sites across Kirklees which offer potential for public transport improvement schemes. This policy notes Transpennine Electrification and Huddersfield Station Capacity Improvements as an approach to accommodate longer and more frequent services. It states that the impact for the local area would be to "*stimulate growth in the north of England through better connections between key towns and cities, which will improve the attractiveness of Huddersfield as a location to invest in."*

Technical guidance and standards

10.2.40 The methodology for the assessment is based on current best practice and guidance from the following sources:

- 'Guidelines for Landscape and Visual Impact Assessment'[3], Landscape Institute (LI) and Institute of Environmental Management and Assessment (IEMA), Third Edition, 2013;
- 'An Approach to Landscape Character Assessment'[4], Natural England 2014;
- 'Landscape Institute Technical Guidance Note (TNG) 06/19 Visual Representation of Development of Proposals (2019)[5]; and
- Design Manual for Roads and Bridges – LA 107 (Revision 2) Landscape and Visual Effects (Feb 2020)[6].

[2] Kirklees Council 2019, Kirklees Local Plan – Allocations and Designations (Adopted 2019), Kirklees
[3] Landscape Institute and Institute of Environmental Management and Assessment, 2013, Guidelines for Landscape and Visual Impact Assessment Third Edition, Routledge.
[4]Christine Tudor, October 2014, An Approach to Landscape Character Assessment, Natural England.
[5] Landscape Institute, 2019, Technical Guidance Note (TNG) 06/19 Visual Representation of Development of Proposals
[6] Highways England 2020, Design Manual for Roads and Bridges – LA 107 Landscape and Visual Effects, accessed online at: bc8a371f-2443-4761-af5d-f37d632c5734 (standardsforhighways.co.uk) on 20.12.20

10.3 Assessment methodology

Study area

10.3.1 The study area comprises a 2km offset from the centreline of the railway. This is considered appropriate due to the local landform, vegetation and built form surrounding the Scheme and the anticipated effects arising as a result of the Scheme. The extent of the overall study area for the landscape, townscape and visual impact assessment of the Scheme is informed by the Zone of Theoretical Visibility (ZTV), which indicates the potential visibility of the Scheme. This report assesses the wider area of the Scheme. Further details pertaining to the six route sections can be found in the Route Section Assessments in Volume 2ii of this ES.

Data sources

10.3.2 During the baseline assessment, all relevant landscape and townscape designations, character areas and landscape/townscape features were identified to evaluate the baseline conditions of the study area. This was used to identify potential visual and landscape/townscape receptors that could be affected by the Scheme. Information on the baseline conditions of the study area was gathered using the following sources during summer 2019:

- Google Maps: https://www.google.co.uk/maps;
- Multi-Agency Geographic Information for the Countryside (MAGIC) Map: https://magic.defra.gov.uk/;
- Natural England Character Area Profiles https://www.gov.uk/government/publications/national-character-area-profiles-data-for-local-decision-making/national-character-area-profiles;
- Public Rights of Way (PRoW) Mapping issued by Kirklees Council: https://www.kirklees.gov.uk/beta/countryside-parks-and-open-spaces/PublicRightsofWay/map.aspx?lon=415371&lat=417192&zoom=7&layers=&triggerClick=false&searchText=Kilner%20Bank; and
- Planning Policy Issued by Kirklees Council: https://www.kirklees.gov.uk/beta/planning-and-development.aspx.

Approach

10.3.3 An Environmental Scoping Report was produced and issued to the Transport and Works Act Orders Unit in June 2019. This identified which elements of the landscape, townscape and visual impact of the Scheme would be assessed as part of the EIA.

10.3.4 The Environmental Scoping Report and the subsequent Scoping Opinion informed the approach to the assessment reported in this ES. As defined in the scoping report, the assessment follows a methodological approach and considers baseline conditions within the defined study area, which include the existing landform, vegetation, built form and urban features. The existing railway infrastructure is considered as part of the assessment, since it is an established feature of the landscape and townscape.

10.3.5 The assessment criteria for the landscape, townscape and visual assessment is based on the guidance provided within the Guidelines for Landscape and Visual Impact Assessment (GLVIA) [3rd Edition]. The aim of the assessment is to establish the following in relation to the Scheme:

- an understanding of the Scheme and its wider landscape/townscape setting, identifying its character, resources, value and sensitivity to the development;

- an assessment of the composition, character and aesthetic value of views from visual receptors including occupiers of residential properties, views from people using amenity landscapes, and the sensitivity of views;
- the potential direct and indirect effects of the proposal on the landscape/townscape resource (i.e. key elements, features and character) and on visual receptors; and
- commentary on the residual effects on the landscape/townscape character and visual amenity in relation to the development scenario, and compliance with landscape/townscape policy.

10.3.6 This assessment considers two inter-linked issues as follows:

- **Landscape/townscape effects**: the effects of the development on the physical and cultural characteristics of the surrounding landscape/townscape character; and
- **Visual effects:** the effects of the Scheme on views from visual receptors and on the amenity value of these views.

10.3.7 The baseline work adopted for the landscape, townscape and visual impact assessment comprises a combination of desktop and field studies to identify and record the character, elements, features and aesthetic and perceptual factors. The baseline data were established through the following:

- A review of all relevant documents and landscape/townscape planning policy and guidance;
- A review of landscape/townscape character assessments;
- Geographical information system (GIS) analysis of the topography surrounding the Scheme and production of the ZTV;
- A site visit to undertake an assessment of the character of the area, together with the sensitivity of the landscape/townscape to change as well as to obtain photographs of key viewpoints from around the Scheme; and
- Identifying and describing the key features associated with the Scheme that would alter the characteristics of the landscape/townscape and visual baseline.

10.3.8 The assessment considered the effects of the Scheme during the construction phase and at the operational phase. This includes the following aspects:

- Landscape, townscape and visual effects of electrification elements such Overhead Line Equipment (OLE) and associated structures;
- Landscape, townscape and visual effects of new infrastructure elements, such as additional tracks;
- Landscape, townscape and visual effects of new/relocated railway stations;
- Landscape, townscape and visual effects of works to existing bridges and new flyovers/dive-under bridges; and
- Impact on existing landscape character.

Assessment Criteria

Definition of receptor

10.3.9 Baseline data along with the description of the Scheme, form the basis for the identification and description of the changes that would result in the landscape/townscape and visual amenity of the area. The landscape/townscape resource needs to be understood in terms of its constituent elements. These elements include its character and the way this varies spatially, its geographic extent and history. It also covers its condition and the way it is experienced, including the value attached to it. A receptor is a defined aspect of the landscape/townscape resource that has the potential to be affected by the Scheme.

10.3.10 The visual baseline establishes the area in which the Scheme may be visible, the different groups of people who may experience views of the Scheme, the places where they would be affected and the nature of the views and visual amenity at those points. Visual receptors are individuals and/or defined groups of people who have the potential to be affected by the Scheme.

Landscape/townscape baseline

10.3.11 The landscape/townscape baseline includes an overview of the elements that form the landscape/townscape baseline for the assessment, using text and graphical representation to describe:

- Topography;
- Cover, distribution and type of land use and open space, including statutory and non-statutory designations relevant to the landscape, townscape and visual assessment like Areas of Outstanding Natural Beauty and Open Access Land;
- Development patterns and scale, including age, massing and density of buildings, levels of enclosure, building materials and landmark features;
- Vegetation patterns and extents;
- Transport routes and PRoW, National Trails and other routes to include roads, railways, cycleways, bridleways, footpaths, historic green lanes and waterways;
- Heritage features, including Conservation Areas, Listed Buildings, Registered Parks and Gardens and other historic components in relation to the landscape/townscape character and their setting within the landscape/townscape; and
- Existing landscape character assessments prepared by authorities including national level character assessment.

10.3.12 Within published landscape/townscape character assessments, Landscape Character Areas (LCAs) and Townscape Character Areas (TCAs) are defined as areas with broadly homogenous characteristics. The identification of LCAs/TCAs is influenced by the published landscape/townscape character assessments and subsequently refined by fieldwork. These LCAs/TCAs form the basis of the assessment of potential impacts on landscape character.

Visual baseline

10.3.13 A computer-generated Zone of Theoretical Visibility map (Figure 10-1) has been produced to illustrate the theoretical visibility of the Scheme. The ZTV illustrates the Scheme's visibility viewed from a height of 1.8m above ground level to be representative of approximate adult eye height. The analysis has been produced to assist in viewpoint selection and to provide an appreciation of the theoretical visibility of the Scheme in the wider landscape.

10.3.14 The ZTV has been compiled using LiDAR data comprising spot heights and contours (within a 5m resolution) to produce a Digital Terrain Model (DTM). The DTM was overlain on a 1:25000 Ordnance Survey (OS) base map.

10.3.15 The use of this type of ZTV map is considered good practice and is useful as a tool to assist in assessing the visibility of the Scheme. However, it should not be considered an absolute measure of visibility. Whilst a ZTV map indicates the potential area from which it might be possible to secure views to part(s) of the Scheme, the use of the map needs to be qualified on the following basis:

- There will be a number of areas within the ZTV where it might be possible to view parts of the development, but that may not be accessible to the general public or well frequented;
- A ZTV map does not account for the complete effects of screening and filtering of views as a result of intervening features, such as buildings, trees, hedgerows, weather conditions; and

- A ZTV map does not account for the likely orientation of a viewer, for example when travelling in a vehicle.

10.3.16 The combined effect of these limitations means that ZTV mapping tends to over-estimate the extent of visibility; both in terms of the land area from which the Scheme is visible, and the extent of visibility of the Scheme from a particular viewpoint. Therefore, ZTV maps do not truly represent the 'visual impact' of the Scheme.

Scheme survey and photography

10.3.17 Viewpoint locations were established through desk-based research which has then been verified through fieldwork. The location of viewpoints are shown on Figure 10-1. The photographic locations were selected through consultation with the local Landscape Officer at Kirklees Council. Representative views were selected at locations where sight lines to the railway may be available. The selection process was based on the initial ZTV, understanding of the Scheme proposals and key locations identified by the Kirklees Council Landscape Officer. The fieldwork following the initial selection of viewpoints confirmed that at some locations the Scheme would not be visible. However, the selected views still provide an indication of the railway line's context within its wider landscape and townscape setting and provide an overview of the theoretical visibility of the Scheme; the selected views provide an overview of receptors from long-distance, mid-range and close-range views. This provides the visual context for the Scheme which reflects the visual envelope of the railway and feeds into the assessment of landscape/townscape character.

10.3.18 The selected points are considered as being representative views of the Scheme as seen from key receptors and provide an indication of its setting within its wider landscape/townscape context.

10.3.19 The Scheme surveys were conducted in both the summer and the winter seasons. The initial Scheme survey work was undertaken in late August 2019 in optimal conditions, being of clear weather and good atmospheric conditions for optimal visibility during the summer season. The winter views were taken in February 2020, also in optimal conditions for visibility during the winter months. Further survey work was undertaken in the summer months of 2020 to include additional viewpoints (following stakeholder consultation). This approach ensures that the Scheme is assessed at varying time periods which will indicate varying levels of visibility due to changes in season and vegetation cover.

10.3.20 During the site survey, high quality baseline photographs of agreed representative viewpoints towards the Scheme were taken. All baseline photographs were taken with a digital equivalent of a 35mm SLR camera, with 50mm focal length lens, at approximate adult eye level (1.6m). They seek to illustrate the full extent of the Scheme and its visibility within the local landscape that would be experienced at each viewpoint.

10.3.21 The photographs of representative viewpoints seek to aid the reader's understanding of the assessment of visual effects. These photographs have been annotated as appropriate. Photomontages of 13 viewpoints were produced as part of this assessment to indicate the visibility of the Scheme from the surrounding area at Year 1. These verified views provide Accurate Visual Representation (AVR) of the Scheme. The methodology for the Photomontages is provided in Appendix 10.2.

Additional residential receptors

10.3.22 Professional judgement has been exercised in order to undertake proportionate worst-case assessments of visual effects for residential receptors during both the construction phase and the operational phase.

10.3.23 For both assessments, receptors have been assessed as representative groups which are anticipated to experience similar effects, rather than individual properties. Site work has not been undertaken and the assessments of additional residential receptors has been undertaken based on knowledge of the Scheme and its context.

10.3.24 For the construction phase assessment, it is anticipated that the construction phase will affect a large spatial area and therefore the potential visual effects on groups of residential receptors within the wider study area (2km) have been considered. However, these effects would constitute a temporary change, limited to the construction phase. This assessment approach ensures that the worst-case potential effects experienced by residential receptors during the construction phase are captured within the assessment.

10.3.25 For the operational assessment, close range residential receptors likely to experience effects due to the introduction of OLE have been identified. Given the scale of the infrastructure to be employed, it is considered that in the operational phase close-range views would experience more considerable effects than mid-range or long-distance views. Therefore, the identification of representative residential receptors for the operational assessment has focussed on groups of immediate lineside neighbours. These groups of receptors were identified through online available data sources and mapping tools as identified in 10.3.2. A detailed assessment of the potential effects during the operational phases of the Scheme on these representative lineside properties has been undertaken. For completeness, an assessment of the construction effects on these line-side receptors has also been undertaken.

10.3.26 This approach ensures that a worst-case assessment of potential effects on residential receptors is provided during the construction phase and that the potential effects of the construction and operation of Scheme with regards to the introduction of OLE are assessed in relation to residential receptors adjacent to the railway line.

Assessment of sensitivity

10.3.27 The value and condition ascribed to landscape/townscape contributes to an understanding and consideration of the potential sensitivity of a character area. The condition of the character area is based on the physical state of the landscape/townscape, including its intactness and the state of repair of individual features and elements using the following criteria:

- Good: components are regularly maintained to a high standard;
- Fair: components are relatively well maintained; and
- Poor: components are poorly maintained or damaged.

10.3.28 The likely value of the character areas is based on which users may value the areas, and where relevant, any statutory, non–statutory or local plan designations. The presence of combinations of attributes should be considered when ascribing the value of a character area. Based on GLVIA 3rd Edition, the factors influencing the value of the landscape/townscape are set out in Table 10-1.

Table 10-1 Landscape value criteria

Value of the landscape/townscape	Criteria
Internationally valued	World Heritage Sites Part of an internationally recognised element of the country's character of interest to international tourism
Nationally valued	National Parks Areas of Outstanding Natural Beauty Listed Buildings and some Conservation Areas Scheduled Monuments

Value of the landscape/townscape	Criteria
Locally valued	Designated areas by local authorities e.g. special landscape areas and Conservation Areas A public, semi- public private open space that is of value to the local community
Limited value	Commercial, industrial or disused area providing little value to the community or residents

10.3.29 Sensitivity is a term applied to specific receptors, combining judgements of the susceptibility of the receptor to the specific type of change or development proposed and knowledge of the condition and value related to that receptor. The overall sensitivity of the landscape can be defined as embracing a combination of the sensitivity of the landscape/townscape resource (in terms of both its character as a whole and the individual elements contributing to character) and the visual sensitivity of the landscape/townscape. In some cases, whilst an area may fall within a statutory designation, character and visual amenity will vary and as a result, different sensitivity levels may be applied to neighbouring areas within the designation. The criteria used to assess the sensitivity of landscape/townscape and visual receptors are set out in Tables 10-2 and 10-3 respectively.

Table 10-2 Landscape sensitivity criteria

Sensitivity to change	Landscape/townscape receptor
High	• Internationally or nationally statutory designated/recognised landscape/townscape of high quality and distinctive character with a large number of features and strong sense of place. • A relatively undisturbed, pristine landscape/townscape where changes or disruptions to the existing landscape/townscape would be noticeable and difficult to mitigate or restore. • Where features or sense of place is diminished, a lower sensitivity may apply.
Medium	• Locally designated/recognised landscape/townscape with some distinctive and/or designated characteristics and features in reasonable condition. • Landscape/townscape of relatively widespread and common features or characteristics, capable of tolerating moderate levels of change without affecting the key characteristics and elements.
Low	• Undesignated landscape/townscape with local value but low quality. • Few distinctive characteristics features or elements many of which may be in poor condition. • Landscape/townscape capable of tolerating substantial change/improvement/enhancement.

Table 10-3 Visual Sensitivity criteria

Sensitivity to change	Visual receptor
High	• Receptors with a key interest and expectation of enjoying the view (i.e. walkers, horse-riders). • Occupiers of residential properties. • Receptors are more likely to be highly sensitive within a nationally or internationally designated landscape/townscape.

Sensitivity to change	Visual receptor
Medium	• Visitors at locations where the view is valued but not fundamental to the location or activity (e.g. people in outdoor recreation that does not focus on an appreciation of the landscape/townscape). • People travelling on local roads or on trains with specific interest in the view but where viewing periods are discontinuous and / or irregular. • Receptors are more likely to be of medium sensitivity within locally valued landscapes/townscapes.
Low	• People engaged in activities that either distract from the view or require concentration on the foreground, resulting in minimal interest or appreciation of the view (e.g. people at work), motorists travelling not for the specific enjoyment of the scenery or people engaged in sports or recreation where the focus is more on the activity rather than the view. • Receptors are more likely to be of low sensitivity where visual amenity is not the principal reason for them to be present or where the quality of the existing view is poor (e.g. industrial areas or derelict land).

Assessment of magnitude of impact

10.3.30 Each effect on a receptor needs to be assessed in terms of its size or scale, the geographical extent of the area influenced, and its duration and reversibility. The assessment includes consideration of the magnitude of change the Scheme would exert on the receptor because of:

- the proximity of the Scheme to the receptor – generally the magnitude of effect reduces with increasing distance as it progressively exerts less influence;
- the extent to which the Scheme can be seen, and the extent to which landform, woodland, buildings etc. intervene; and
- the visibility of the Scheme and its resulting effects on character.

10.3.31 The assessment of the magnitude of change upon visual amenity as a direct result of the Scheme depends upon several factors including:

- the scale of change in the view with respect to the loss and/or addition of new features;
- the degree of contrast, or integration of/ compatibility with any new features with existing features in the view;
- the duration of the effect (temporary or permanent, intermittent or continuous) temporary effects are considered to be less significant than longer term or permanent effects. therefore, magnitude is more likely to be higher if the change is long-term or permanent and low if change is short-term or temporary;
- the distance of the receptor from the source of the effect;
- the angle of view and presence of intervening vegetation or features;
- the dominance of the impact feature in the view; and
- seasonal variation.

10.3.32 It is generally assumed that the visual effects of the Scheme would reduce as viewing distance increases. However, the magnitude of visual effects at any given distance will vary according to a range of factors. These include the extent of the new buildings and structures that would be visible; their position in the view; the presence of other conspicuous features; and the extent to which views of the Scheme would be screened or filtered by intervening landform or by landscape elements such as trees, woodlands, hedgerows, or built structures; and the extent of mitigation planting.

10.3.33 The assessment assumes that the change would be seen in clear visibility and under appropriate lighting conditions and considers:

- the attributes of the landscape where the Scheme would be sited (i.e. the scale and character of the landscape in which it would be viewed; the presence or absence of features; and the scale/enclosure within the field of view);
- the design and siting of the Scheme itself; and
- the atmospheric conditions prevalent at the time of viewing.

10.3.34 Criteria used to determine the magnitude of predicted landscape/townscape and visual amenity effects range from Negligible to Major and are set out in Table 10-4. The magnitude as outlined in Table 10-4, objectively addresses the perceivable changes of the Scheme in relation to its setting within the landscape/townscape and does not consider the significance of the Scheme.

Table 10-4 Magnitude criteria

Magnitude of change	Criteria	
	Landscape/townscape receptor	Visual receptor
Major	• All / most key characteristics/features/ elements of the landscape/townscape would be affected within a localised area. • Limited change in landscape characteristics over an extensive geographical area. • The proposal would be completely incompatible or inconsistent with the area and its surroundings, the scale, landform and pattern of the townscape/ landscape, **or** the proposed development would fit in very well with the scale, landform and pattern of the townscape and bring considerable enhancements.	• Extensive change to baseline view and/or loss of key visual features. • Introduction of anomalous and highly prominent or dominant new elements. • The Scheme would be visually intrusive and would cause substantial deterioration and adverse change in the existing view and visual amenity of the area **or** the Scheme would create a substantial improvement and enhancement of key views and visual amenity of the area.
Moderate	• Some key characteristics/features/ elements would be affected within a localised area. • Some notable key changes in townscape characteristics over a wide area without compromising the overall integrity of the townscape. • Limited change in landscape characteristics over a wider area without compromising the overall integrity of the landscape. • The proposal would introduce some notable elements which would be inconsistent with the existing character which would affect a limited area of the landscape/townscape or the proposal would introduce some notable elements which complement the existing baseline conditions and would affect a limited area of the landscape/townscape, whilst contributing to the character.	• Notable change to baseline view (e.g. partial loss of key visual features). • Introduction of prominent, but essentially localised new features or elements. • The Scheme would be prominent and would cause noticeable deterioration/ improvement or adverse/positive change in the existing view and visual amenity of the area.

Magnitude of change	Criteria	
	Landscape/townscape receptor	Visual receptor
Minor	• Very few key characteristics/features/ elements would be affected. • The proposal would introduce some elements which would affect a very limited number of key characteristics/ features/elements within a localised area of the landscape/townscape. • The Scheme would fit within the scale, landform and pattern of the townscape however, there would be some loss of quality and characteristic features **or** the development would complement the scale, landform and pattern of the townscape, whilst contributing to character.	• Minimal change to baseline view (e.g. limited loss of visual features), changes are evident, but not especially prominent and are generally localised.
Negligible	• No discernible change to the key characteristics of the landscape/ townscape character. • Could include a minimal degree of change within a highly localised area of the landscape/townscape.	• Barely perceptible change to baseline view and/or very brief exposure to view.

Assessment of significance of effect

10.3.35 The two principal criteria determining significance are the sensitivity of the receptor to change as a result of the Scheme, and the magnitude of the impact or effect. Both are considered together to determine the significance of the landscape/townscape and visual effect, which can be adverse, beneficial or neutral, as shown in Table 10-5.

Table 10-5 Significance of effect matrix

		Sensitivity to change		
		High	Medium	Low
Magnitude of change	Major	Major adverse/beneficial	Major adverse/beneficial	Moderate adverse/beneficial
	Moderate	Major adverse/beneficial	Moderate adverse/beneficial	Minor adverse/beneficial
	Minor	Moderate adverse/beneficial	Minor adverse/beneficial	Minor adverse/beneficial
	Negligible	Negligible	Negligible	Negligible

10.3.36 Adverse effects are considered to be changes that are detrimental in terms of reducing the quality of the landscape/townscape resource or a receptor's views, whereas beneficial effects are changes that enhance the quality of the landscape/townscape resource or a receptor's views.

10.3.37 Effects which are assessed as 'Moderate' or 'Major' are considered to be 'significant' for the purposes of this assessment. Effects which are assessed as 'Minor' or 'Negligible' are considered to be 'not significant'. Where it is deemed the Scheme would have no discernible effect on the quality of the landscape/townscape or the receptor's views a neutral classification is assigned. A textual description of landscape/townscape and visual effects is given in Table 10-6.

Table 10-6 Description of significance of effects

Significance of effect	Landscape/townscape character	Visual amenity
Major adverse	The Scheme is at considerable variance with the scale, landform and pattern of the landscape/townscape, and/or there is a total or major loss of key characteristics.	The Scheme would be visually intrusive and would cause substantial deterioration and/or adverse change in the existing view/general visual amenity of the area.
Moderate adverse	The Scheme is out of proportion and does not fit with the scale, landform and pattern of the landscape/ townscape, and/or damages quality, with a loss of key characteristic features.	The Scheme would be visually intrusive and would cause noticeable deterioration and/or adverse change in the existing view/general visual amenity of the area.
Minor adverse	The Scheme fits within the scale, landform and pattern of the landscape/townscape however, there is some loss of quality or characteristic features.	The Scheme would cause limited visual intrusion and would cause minor deterioration and/or adverse change in the existing view/general visual amenity of the area.
Negligible	The Scheme has no easily discernible effect on landscape/townscape character.	The Scheme would cause no easily discernible change to visual amenity and key views.
Minor beneficial	The Scheme would complement the scale, landform and pattern of the landscape/townscape, whilst contributing to the existing character.	The Scheme would result in minor improvement and/or positive changes to key views/visual amenity of the area.
Moderate beneficial	The Scheme would fit in well with the scale, landform and existing pattern of the landscape/townscape, and maintain and/or enhance the existing landscape character.	The Scheme would create a very noticeable improvement and/or positive change in key views/visual amenity of the area.
Major beneficial	The Scheme would fit in very well with the scale, landform and existing pattern of the landscape/townscape, and bring considerable enhancements.	The Scheme would create a substantial improvement and enhancement of key views/visual amenity of the area.

Consultation

10.3.38 The Scoping Opinion stated that “The viewpoints included in any supporting Landscape Visual Impact Assessment should be agreed with Kirklees Council prior to their inclusion in the ES”. As part of the scoping report, a 2km study area was proposed.

10.3.39 Consultation with Kirklees Council via email has been ongoing since June 2019 and has fed into the production of this assessment. The proposed representative viewpoint locations were agreed by the Council on 15 July 2019. Proposed photomontage locations were provided to the Council per email correspondence, and were agreed by the Council on 20 August 2019. This is in accordance with the Scoping Opinion received in July 2019.

Cumulative developments

10.3.40 Cumulative effects can include Intra-Scheme impacts and Inter-Scheme impacts. Intra-Scheme impacts are where in-combination impacts arise from the Scheme. Inter-Scheme impacts occur due to impacts from more than one scheme.

Intra-Scheme cumulative effects

10.3.41 Intra-Scheme cumulative effects are the combination of multiple activities associated with the Scheme itself. With regards to construction, cumulative effects would include multiple construction activities occurring simultaneously at or close to the same location.

Inter-Scheme cumulative effects

10.3.42 Reasonably Foreseeable Future Projects (RFFP) that have the potential to affect or be affected by the Scheme are detailed in Chapter 22 (Cumulative effects) of this ES.

10.3.43 The potential construction and operational inter-Scheme cumulative effects on landscape/townscape character and views and visual amenity has been informed by the findings of the site survey and desktop assessment work.

Assumptions and limitations

10.3.44 The visual analysis is based on views from external spaces within the public domain and not from inside buildings or private spaces. However, comment and assessment in relation to views from private spaces have been made where appropriate.

10.3.45 The assessment of effects for residential receptors has considered those near representative views. For the assessment of additional residential receptors, where site work was not undertaken, the assessment is based on knowledge of the Scheme, its context and online data. Representative lineside receptors identified provide an assessment of worst-case effects during the operation of the Scheme, associated with the introduction of OLE. Potential visual effects on residential receptors during the construction phase are assessed within the wider study area to provide a worst-case assessment of the potential effects during this phase.

10.3.46 The assessment process aims to be objective and to quantify effects as far as possible. However, it is recognised that subjective judgement is appropriate, if it is based upon training and experience, supported by clear evidence, reasoned argument and informed opinion. Whilst changes to a view can be factually defined, the evaluation of landscape/townscape character and visual effect does require qualitative judgements to be made. The conclusions of this assessment therefore combine systematic observation and measurement with informed professional interpretation.

10.3.47 The assessment has used resources available online and published by others, including MAGIC Map, Natural England Character Area Profiles, PRoW Mapping by Kirklees Council and Planning Policy issued by Kirklees Council. It is assumed that the data presented by such third parties is accurate and appropriate to inform our baseline and assessment.

10.4 Landscape and visual baseline

Landscape character and context

Topography and drainage

10.4.1 The analysis of the terrain of the Scheme and study area is illustrated on Figure 10-2. Due to its land use, the railway line is generally on level and lower ground. Furthermore, the topography within the study area is defined by the local watercourses, which are discussed in detail below. Overall, the railway line is located within a lower lying valley that leads from Huddersfield in the west to Dewsbury in the east of the study area. The terrain analysis shows a range from approximately 89m Above Ordnance Datum (AOD) to the south-west and approximately 108m to the west of Huddersfield. This leads on to lower lying ground in the centre of the study area and eastern extent of the railway line around Deighton, ranging from approximately 60m in the centre to approximately 55m AOD to the east of Deighton. Dewsbury is located in the lowest lying area at approximately 47m AOD. Several higher lying areas are located in the outer extents of the study area, reaching up to 200m AOD. Generally speaking, the study area features an undulating landscape which is typical of the local landscape character.

10.4.2 The study area comprises a 2km offset from the railway centre line. Several watercourses lie within the study area, which shape the overall topography of the area. These include the River Holme to the south-west which merges with the River Colne in the southern extents of Huddersfield and runs north-east towards the River Calder. The Huddersfield Broad Canal mainly runs parallel to the River Colne through Huddersfield. In the centre of the study area, both the Huddersfield Broad Canal and the River Colne merge with the River Calder. The River Calder runs east and south-east through the study area, through Dewsbury and beyond the study area.

Land use and land cover

10.4.3 The railway line is part of a wider infrastructure network, which defines its use as a means of public transport that leads through urban centres and the wider countryside.

10.4.4 The predominant land use within the study area presently comprises a majority of settlement and urban land use. Within the northern extent of the study area there is a substantial area of good agricultural land. Overall, the study area is defined by its two urban centres, Huddersfield and Dewsbury, and the associated urban fringe and peri-urban landscape[7]. Within the settlement fringes, some industrial developments are located. Several leisure facilities are located within the study area, including several sports complexes and golf courses.

Trees, woodland, hedgerows and vegetation

10.4.5 The railway line runs through a variety of areas including dense urban settlement, suburbs, peri-urban landscape and countryside. Depending on the area, there are varying levels of vegetation apparent along the railway line. Within the urban centres, vegetation is limited to linear corridors of shrubs, hedgerows and trees interspersed within the townscape. Between Huddersfield and Deighton, a narrow tree lined corridor along the railway line branches out into a larger area of open greenspace with groups of shrubs and trees of varying size and quality. From Deighton to Mirfield the vegetation pattern changes according to the railway line's proximity to the watercourse. North-east of Deighton, the vegetation is limited to linear corridors adjacent to the railway tracks. Once the railway gets closer to the River Colne and Huddersfield Canal, which then merge into the River Calder, there is an increase in vegetation and open green space adjacent to the railway line. This ranges from linear features such as

[7] The area between urban and rural landscapes

lines of trees and shrubs to agricultural fields and blocks of trees. Around Mirfield station, there is very limited vegetation with some trees and shrubs planted in the vicinity. Immediately to the east of the station, there is a large woodland group and the vegetation cover increases towards Ravensthorpe. Between Ravensthorpe and Dewsbury, the initial section of the railway line is defined by its proximity to the watercourse. The more urban area towards Dewsbury has less vegetation along the railway line.

10.4.6 Within the study area, there is considerable vegetation cover on the outskirts and outside of the urban centres. There are several pockets of open greenspace on the outskirts of Huddersfield and Dewsbury alongside small woodland groups and leisure facilities such as golf courses and sports pitches. In particular within the central extent of the study area, between Deighton and Mirfield, there is an area of agricultural land and open countryside which breaks up the urban settlement structure and is designated as Green Belt. The typical field pattern in this area is irregular and of mixed sizes and shapes with characteristic hedgerows forming the predominant field boundary. Along the watercourses, there is an abundance of tree and shrub groups with some meadow areas.

Communications

10.4.7 The railway line runs from Huddersfield in the west to Dewsbury in the east and stops at Deighton, Mirfield and Ravensthorpe. Railway infrastructure is prominent along the line including gantries, pedestrian overbridges and station buildings. It is surrounded by an abundant road network that connects the settlements within the study area with each other and other larger urban centres outside of the study area such as Manchester and Leeds.

10.4.8 Huddersfield Station is surrounded by the A62 which connects Huddersfield with Manchester and Leeds to the east and west of the study area. The A62 also connects Huddersfield with the A629, leading north to the M62 and south. The A640 leading north-west connects with the A62 and leads to the M62.

10.4.9 Mirfield and Ravensthorpe station are serviced by the A644 which branches off the A62 and connects with the A638 in Dewsbury. Dewsbury is serviced by the A638 which connects the settlement with the A653 and A652 leading north-east to Leeds.

10.4.10 The area is served by a network of PRoW and this is discussed further in section ‘Designations and Landscape Features’.

Designations and landscape/townscape features

10.4.11 Designations and landscape features are illustrated on Figure 10-3 in Volume 4 of this ES.

10.4.12 There are several landscape and townscape features of note within the study area and in immediate vicinity of the railway line. These are described in detail as follows.

Registered Parks and Gardens

10.4.13 There are five Registered Parks and Gardens located within the 2km study area. These are:

- Kirklees Park – Grade II Listed Park and Garden located approximately 1048m north of the railway line;
- Crow Nest Park – Grade II Listed Park and Garden located approximately 260m to the north-west of the railway line in Dewsbury;
- Dewsbury Cemetery – Grade II Listed Park and Gardens located approximately 430m to the north-west of the railway line in Dewsbury;
- Greenhead Park – Grade II Listed Park and Garden located approximately 450m to the west of Huddersfield Station; and

- Beaumont Park – Grade II Listed Park and Garden, approximately 240m to the west of the railway line.

Public Right of Way, cycle routes and walking routes

10.4.14 There are several public rights of way (PRoW) located in the study area which connect the urban settlements with the wider countryside. Three long distance footpaths are located within the study area. These are:

- Holme Valley Circular Walk;
- Kirklees Way; and
- Spen Valley Heritage Trail

10.4.15 The National Cycle Network (NCN) Route 66, Calder Valley Greenway, leads through the study area. It starts in central Huddersfield and broadly follows the course of the railway line until Dewsbury, where it then leads south-east from the settlement.

10.4.16 The wider PRoW and cycle network are illustrated on Figure 10-3 in Volume 4 of this ES. PRoW within a 100m offset of the railway line includes:

- HUD/318/10 crosses the railway line within the western extent of the study area;
- HUD/317/10 lies approximately 77m to the south of the railway line, where it intersects HUD/318/10;
- HUD/318/20 lies approximately 75m to the south of the railway, where it intersects HUD/317/10;
- HUD/330/30 lies approximately 25m to the north of the railway line;
- HUD/327/10 lies approximately 70m and 20m to the south of the railway line;
- HUD/327/20 lies approximately 70m to the south of the railway line;
- HUD/329/10 lies approximately 100m to the south of the railway line;
- HUD/328/20 crosses the railway line to the north-east;
- HUD/336/10 lies approximately 75m to the north-west of Huddersfield Station;
- HUD/58/10 crosses the railway line via Red Doles Road Underbridge (MVL3/96);
- HUD/42/10 crosses the railway line via Field House Overbridge (MVL3/98).
- HUD/44/20 lies in the Riddings approximately 45m to the north-west of the railway line;
- HUD/44/30 crosses the railway line by the Riddings to the south-west of Deighton;
- HUD/52/10 lies approximately 100m to the north-west of the railway line;
- HUD/51/10 lies approximately 5m to the north-west of the railway line;
- KIR/251/10 lies approximately 20m to the south-west of the railway line;
- MIR/106/10 lies approximately 50m to the south of the railway line;
- MIR/99/10 lies approximately 20m to the north of the railway line;
- MIR/50/10 lies approximately 60m to the south of the railway line;
- MIR/50/20 crosses the railway line by Hurst Lane;
- MIR/76/10 lies approximately 20m to the north-west of the railway line;
- MIR/76/20 lies approximately 20m to the north-west of the railway line;
- DEW/1/10 crosses the railway line north of Lady Wood;
- DEW/3/10 lies approximately 30m to the south-east of the railway line;
- DEW/155/10 crosses the railway line on the southern bank of Ravens Wharf;
- DEW/117/20 lies approximately 20m to the north of the railway line;
- DEW/117/10 lies approximately 25m to the south of the railway line; and

- DEW/116/30 crosses the railway line on the northern bank of Ravens Wharf.

Scheduled Monuments and Listed Buildings

10.4.17 While Scheduled Monuments and Listed buildings have been considered through the assessment of local character, these are not reported directly within this assessment. . The impact of the works on such designated heritage assets is reported in Chapter 6 (Historic environment) of the Scheme-wide Assessment.

10.4.18 Listed buildings and Scheduled Monuments located within the Scheme boundary and the 250m study area of the Heritage Chapter are shown on Figures 6-1 and 6-2.

Ancient Woodland

10.4.19 There are several areas of Ancient Woodland present within the study area. The majority of these are located to the north of Huddersfield and to the south of Mirfield. For the specific location of areas of Ancient Woodland refer to Figure 10-3.

Green Belt

10.4.20 Areas of Green Belt are present within the study area. These are primarily located to the south of the railway line between Colne Bridge, Mirfield and Dewsbury, with some areas of Green Belt to the north of the line. Areas of Green Belt are shown on Figure 10-3.

Local Wildlife Sites

10.4.21 There are 16 Local Wildlife Sites (LWS) located within the study area. The majority of these coincide with areas of Green Belt or open green spaces such as parks, with the highest proportion of designated LWSs located in the Green Belt to the south of Mirfield. The Huddersfield Broad Canal is also designated as a LWS. These are shown on Figure 10-3.

10.4.22 Further details on these LWS are provided in Chapter 9 (Biodiversity).

Conservation Areas

10.4.23 There are 12 Conservation Areas within the study area (shown on Figure 10-3). These include:

- Station road, Batley;
- Dewsbury Town Centre;
- Thornhill;
- Northfields;
- Upper Hopton;
- Edgerton;
- Greenhead Park/New north road;
- Birkby;
- Quarmy Fold;
- Huddersfield Town Centre;
- Springwood; and
- Milnsbridge.

Local Nature Reserves

10.4.24 There are five Local Nature Reserves (LNR) located in the study area (shown on Figure 10-3). These are:

- Gledholt Woods;
- Dalton Bank;
- Lower Spen Wildlife Area;
- Sunny Bank Ponds; and
- Sparrow Wood.

Landscape and townscape character assessments

10.4.25 The assessment of landscape and townscape character reflects varying patterns of landscape/townscape features, land use and landform as well as the historic fabric within the landscape and the resultant cultural development. Historic landscape features inform the historic and cultural heritage of a place and feed into understanding its characteristic development. "*The combination of characteristics arising from these physical and socio-cultural and socio-economic influences*"[8] is what defines the perceivable variations in landscape/townscape character.

National character

National Character Area 37: Yorkshire Southern Pennine Fringe

10.4.26 The National Character Area (NCA) 11 profiles produced by Natural England identify one NCA within the entirety of the study area, namely NCA 37: Yorkshire Southern Pennine Fringe. Key characteristics of relevance to the study area include:

- "A transitional landscape dissected by steep sided valleys, dropping from high gritstone hills in the west to the lower land in the east, and this creating an important backdrop to the many industrial towns and villages within";
- "Industrial wealth revealed in magnificent civil architecture in town centres, notably Bradford, Halifax, Huddersfield and Sheffield, and several stately homes with designed parklands";
- In places a dense network of roads and urban development, with many road, rail and canal routes crossing the NCA, and a high density of footpaths throughout"; and
- "Rivers creating a deeply dissected landscape, with high plateaux cut by steep-sided valleys, and fanning out in 'fingers' across valleys of the NCA."

10.4.27 The wider landscape surrounding the Scheme demonstrates many of these characteristics including steep sloped valleys, cut through by narrow river corridors, the river Colne and the River Calder, leading into dense urban developments these include Huddersfield and Sheffield.

Regional character

Kirklees District Landscape Character Assessment

10.4.28 The 2015 Kirklees District Landscape Character Assessment identifies landscape types within Kirklees district which display certain characteristics. The assessment divides Kirklees into eight landscape types of which the following six are relevant:

- Moorland Fringes/Upland Pastures;
- Rural Fringes;
- Settled Valleys;
- Wooded Rural Valleys;

[8] Landscape Institute (2016), Technical Information Note (TIN 08/2015) Landscape Character Assessment

- Industrial Lowland Valleys; and
- Rolling Wooded Farmland

10.4.29 The character assessment further divides Kirklees into several character areas. The following 11 partially fall within the study area and have been assigned with a sensitivity. Landscape Character Areas (LCA) are shown on Figure 10-4.

LCA1: Thornton – Queensbury

10.4.30 This character area is located in the northern extent of the study area, north of the M62. Its main characteristics include:

- "Extremely varied field pattern, ranging from very large arable fields to small pastoral land which results in a seasonal mosaic of colours and textures in the fields";
- "Within rural fringes, there are scattered farmsteads with buildings of a traditional local stone vernacular";
- "Although this area is predominantly farmland with relatively small settlements, the surrounding urban centres and major transport corridors have a pervading influence, reducing levels of tranquillity"; and
- "Disused coal shafts allude to the mining history in the area".

10.4.31 While this LCA appears tranquil in relation to its surrounding landscape and townscape, it "is perceived as an urban fringe landscape" which detracts from its rural aesthetic.

10.4.32 This LCA's semi-rural qualities are overshadowed by neighbouring developments and urban infrastructure in the form of large-scale pylons detracting from the natural landscape. As a result, the character area is considered to be of **Low sensitivity**.

LCA2: Batley – Dewsbury Rural Fringes

10.4.33 The majority of this character area is located within the northern extent of the study area. It is defined by the following characteristics:

- "Gently undulating land found between approximately 100 and 200 metres altitude";
- "Varied tree cover, with trees in shelterbelts, along field boundaries and some areas of broadleaved woodland, which follow streams";
- "Traditional stone-built cottages, Victorian terraces and farmsteads provide a contrasting historic sense of place within the urban context";
- "Disused railways and industrial works provide evidence of the area's coal mining heritage";
- "Typical pattern of small-scale grassland pastures with some more limited areas of more intensive arable cultivation";
- "A fragmented landscape forming urban fringe pockets within and around Dewsbury"; and
- "a dense network of A roads, minor roads and narrow winding lanes link the LCA's small villages with the surrounding urban centres".

10.4.34 Perceptually, this LCA provides areas of "relative tranquillity amongst extensive development".

10.4.35 While the character area is designated as Green Belt land and provides a rural backdrop to several settlements, pylons and busy roads detract from its rural character. As a result, the area is considered to be of **Medium sensitivity.**

LCA3: Batley Fringe Incised Valleys

10.4.36 This character area is located within the eastern extent of the study area to the north-west of Dewsbury. It is characterised by these main points:

- "Character influenced heavily by drainage patterns of the various watercourses draining into the valleys.";
- "Mills, dismantled railways and stone-built worker's terraces indicate the industrial past of the area";
- "This LCA is, for the most part, free of settlement, although there are incidences of ribbon development creeping along roads from the urban areas surrounding the valleys."; and
- "Views are generally restricted by the low-lying topography, the surrounding urban development and frequent trees along roadsides which limit visibility."

10.4.37 The LCA is perceived as an area of tranquillity "in between extensive areas of development". However, the proximity to the M62 detracts from this.

10.4.38 This LCA is a rural pocket amongst urban development. The character area is located within the Green Belt designation. Several PRoW pass through the character area including the NCN Route 66. As a result, the character area is considered to be of **Medium sensitivity**.

LCA4: Barkisland – Holywell Green

10.4.39 This character area extends from the west of Huddersfield to the north-west and north of the settlement within the western extent of the study area. Its main characteristic features are:

- "Steeply rising land between approximately 125 and 360 metres altitude.";
- "Frequent tree and woodland cover, particularly on slopes. There are some larger areas of woodland evident […] north-east of Huddersfield;"
- "There are numerous Listed Buildings […] – buildings of local stone being particularly distinctive and key to sense of place";
- "Disused quarries and shafts provide evidence of an industrial past";
- The landscape is described as "an urban fringe landscape located on the immediate doorstep of Huddersfield, comprising small satellite villages, hamlets and individual stone-built cottages or farmsteads"; and
- "there is a dense network of minor roads and narrow winding lanes, which link the area to the urban centres mainly focused to the south."

10.4.40 Perceptually, this LCA represents typical rural features. "The presence of telecommunications towers […] urban fringe land uses and the sound/sights of nearby development" detract from its sense of tranquillity.

10.4.41 While this character area is in close proximity to Huddersfield, it provides a distinctive rural backdrop to the town. Parts of the character area are located in a Green Belt designation and the Kirklees Way leads through parts of the area. As a result, the character area is considered to be of **Medium sensitivity.**

LCA5: Calder Valley Floor

10.4.42 This character area is located within the east of Huddersfield and extends to the north-east, east and south of the study area. It is characterised by these main points:

- "A valley landscape drained by the River Calder, the River Colne and associated canals";
- "A landscape associated with a strong industrial heritage";
- "There are numerous listed buildings relating to the areas industrial heritage and the Huddersfield Broad Canal"; and
- "The valleys of the LCA are surrounded by large settlements, particularly Huddersfield and Dewsbury, within industrial estates and warehouses occupying the valley floor.

10.4.43 This LCA is perceived as busy, with "extensive urban and industrial development".

10.4.44 While the character area provides some rural aspects in the east, much of the character is urban/industrial development. As a result, the area is considered to be of **Low sensitivity**.

LCA6: Emley Moor Northern Fringes

10.4.45 The character area lies to the east of Huddersfield within the centre of the study area. Its main characteristic features are as follows:

- "local variations in topography create some area of more complex landform, deeply incised by valleys through which small tributaries and watercourses flow";
- "Abundant woodland cover, particularly on the steep valley slopes";
- "Disused quarries and shafts are scattered across the landscape, reflecting the area's industrial heritage";
- "smaller pattern of grassland pastures enclosed by gritstone walls as well as some hedgerow boundaries"; and
- "distinctive settlement character of scattered farms, individual rural houses and groups of dwellings clustered into small villages."

10.4.46 This LCA is perceived as rural and tranquil in relation to its adjacent areas of settlement.

10.4.47 The character area is located in a Green Belt designation and the Kirklees Way crosses through the eastern part of the character area. Due to its close proximity to several settlements it is considered to be of **Medium sensitivity.**

LCA7: Colne (Slaithwaite, Marsden)

10.4.48 This character area is situated south-west of Huddersfield extending west of the study area boundary. It is characterised by these main points:

- "Deeply incised valley of the River Colne with steps and terraces and deep sided cloughs reflecting the underlying geology and weathering processes.";
- "Wealth of historical and archaeological interest, reflecting the industrial heritage of the area";
- "Blackmoorfoot reservoir is a prominent man-made feature located south of Linthwaite."; and
- "The main transport routes also follow the valley landscape, including the A62 which forms the key route into Huddersfield, along with the main Manchester to Leeds railway line."

10.4.49 This LCA is perceived as a busy area and "small scale, well settled […] with strong cultural associations with the Industrial Revolution".

10.4.50 This character area has pockets of rural landscape interspersed with urban settlements, Huddersfield being one. The character area covers a large expanse of land which includes 16 conservation areas, the LCA also covers parts of the South Pennine Moors which is a SSSI. As a result, the character area is considered to be of **Medium sensitivity**.

LCA8: Emley Moor

10.4.51 This character area extends from the Dalton Bank to the west to the outskirts of Dewsbury in the eastern extent of the study area. Main character points include:

- "Elevated, undulating farmland plateau, which reaches heights of up to 265m AOD.";
- "Mixed field pattern, with the scale of the fields dictated by the topography of the land. Hedges, post and wire fencing and gritstone walls enclose the fields.";
- "Buildings are of a traditional gritstone built vernacular";

- "Rich coal mining heritage, with prehistoric iron ore mining also being evident in the landscape"; and
- "Long views north and east towards Huddersfield and Wakefield are afforded by height of the land but are sometimes interrupted by trees and undulation of the ground."

10.4.52 Perceptually, this LCA provides a high level of tranquillity. "The presence of main roads in the north of the LCA detract from this on a local scale".

10.4.53 The character area is located within the Green Belt designation. Kirklees Way crosses through the east of the character area with other routes including the Emley Circular Trail and Emley Village Walk. There are some distant views of the Peak District National Park. As a result, the character area is considered of **Medium sensitivity**.

LCA9: Holmfirth – Meltham

10.4.54 This character area is located to the south-west of Huddersfield in the western extent of the study area and is defined by the following characteristics:

- "Gently undulating plateaux often sloping up to the higher moorlands nearby, ranging from between 150 and 300 metres altitude";
- "Small to medium-scale regular pattern of grassland pastures enclosed by gritstone walls or hedgerows";
- "Isolated remnants of species rich grassland";
- "Disused quarries provide evidence of industrial heritage";
- "A strong historic sense of place with traditional Millstone Grit farmhouses and cottages combining with stone wall field boundaries to create a unified local vernacular";
- "Distinctive settlement character of scattered farms, individual rural houses and groups of dwellings clustered into hamlets and small villages".

10.4.55 This LCA features "a strongly rural landscape" and is perceived as an area of "tranquillity away from the main settlements".

10.4.56 Due to the strong rural character of this area and its abundance of culturally valuable features within the Green Belt it is considered to be of **Medium sensitivity**.

LCA10: Holme River Valley

10.4.57 This character area is located to the south-west of Huddersfield in the southern extent of the study area, main characteristics include:

- "Main valley of the River Holme which runs north towards Huddersfield and is joined from the west and east by tributaries.";
- "Semi-natural habitats within the farmed landscape are largely focused on areas of woodland, many of which are locally designated for their wildlife importance."; and
- "The LCA includes several Conservation Areas including Armitage Bridge and Honley, Hepworth and Butterley – particularly reflecting the settlements' Victorian stone-built architecture."

10.4.58 Some areas of this LCA are perceived as having high levels of tranquillity, with the majority of areas located in the lower lying valley providing "a busy feel".

10.4.59 This character area includes the Beaumont Park and surrounding countryside. It is situated along the Holme river valley with some settlement features on the character area's fringe. The LCA is also located within the Green Belt designation. As a result, the character area is considered to be of **Medium sensitivity**.

LCA11: Fenay Beck Valley Rural Fringes

10.4.60 This character area is located to the south of Huddersfield within the south-western extent of the study area. It is defined by the following characteristic features:

- "Local variations in topography create some areas of more complex landform including deeply incised valleys with small tributaries and watercourses";
- "large blocks of tree and woodland cover found on slopes, particularly in the north east of the LCA";
- "Numerous mills are found along the waterways, particularly textile mills";
- "land cover patterns are small scale and relatively complex";
- "Small grassland pastures are enclosed by gritstone walls as well as some hedgerow boundaries"; and
- "Dense network of minor roads and narrow winding lanes, which radiate from the A269".

10.4.61 Perceptually, this LCA provides varying levels of tranquillity in relative proximity to Huddersfield.

10.4.62 The character area falls within a Green Belt designation and is identified as a tranquil landscape with rural characteristics. The Holme Valley Circular Walk and several culturally valuable features are located in this character area such as the Castle Hill Fort scheduled monument. As a result, this character area is considered to be of **Medium Sensitivity**.

Kirklees Townscape Character Assessment

10.4.63 Due to the lack of a local Townscape Character Assessment, the chapter author has produced a bespoke Townscape Character Assessment using professional judgement as part of this process. Townscape Character Areas (TCAs) have been identified and each has been assigned with a sensitivity. These are shown on Figure 10-5.

TCA 1: Huddersfield Centre

10.4.64 This TCA, situated within the Scheme boundary, encompasses the centre of Huddersfield which is bound by the ring road surrounding the town centre. It is defined by the following characteristics:

- A flat terrain due to the abundance of roads and man-made structures within the town centre, with the exception of the north-eastern extent of the TCA;
- A grid like structure for the majority of the TCA. The north-western extent towards Huddersfield Station neglects the grid structure due to the presence of the railway line. Large blocks of retail and shopping units are located on the edges of the TCA; and
- A variety of mixed-use buildings which are typically 3 to 4 storeys high in the town centre;
- A high density of listed buildings, which reflect the typical architectural style and use of materials;
- Landmark buildings include Grade I listed Huddersfield Station, Grade II* listed Huddersfield Parish Church of St. Peter and Grade II listed Huddersfield Art Gallery; and
- Limited green space and green infrastructure. A small amount of green space is located around the Kirklees Council building, Huddersfield Art Gallery, Huddersfield Parish Church of St. Peter and Huddersfield Station. The only publicly accessible green space is the one located by the Parish Church.

10.4.65 This TCA is perceived as a busy area with traffic moving through and people congregating in the town centre. The high density of buildings using characteristic building materials and some landmark features such as Huddersfield Station afford a strong sense of place.

10.4.66 Due to the high density of listed buildings within this TCA and its town centre use, it is considered to be of **Medium sensitivity**.

TCA 2: Huddersfield East

10.4.67 This TCA lies to the east of Huddersfield town centre, on the eastern side of Kilner Bank. It is defined by the following characteristics:

- Predominantly flat terrain due to the abundance of roads and man-made structures;
- An irregular pattern, with occasional gaps in the built-up areas which are typically pockets of woodland or open green spaces such as sports fields;
- A predominantly residential land use with some smaller shops and schools. The majority of residential properties are modern terraced houses, some larger semi-detached houses are located in the south-west of the TCA;
- An abundance of listed buildings; and
- Considerable amount of green space in the form of sports fields, fields, private gardens and small parks. Roadside tree planting along Grosvenor Road and Long Lane adds to the local green infrastructure network.

10.4.68 This TCA is perceived as a busy residential area. Wakefield Road is the major transport corridor which dissects the TCA and would cause a backdrop of sound pollution.

10.4.69 The abundance of green space in this TCA gives it a pleasant suburban aesthetic. Nevertheless, due to the mix of architecture and used materials, which do not create a sense of unity within the TCA, it is considered to be of **Low sensitivity**.

TCA 3: Huddersfield South

10.4.70 This TCA lies to the south of Huddersfield town centre. It is defined by the following characteristics:

- Undulating landform with a mixture of small lanes and larger traffic routes;
- A green corridor around the River Holme enhances the local abundance of tree cover and green spaces;
- Residential properties are arranged in an irregular pattern along small lanes; and
- Several schools and education facilities are located in this area, with recreation ground and sports pitches adding to the verdant character.

10.4.71 This TCA is experienced as a suburban area of Huddersfield. The busy roads linking to Huddersfield and associated urban noise would be noticeable throughout the TCA.

10.4.72 The abundance of green space in this TCA gives it a pleasant verdant character. The locally diverse styles of architecture detract from a sense of unity. The TCA is considered to have **Low sensitivity**.

TCA 4: Huddersfield West

10.4.73 This TCA lies to south-west of Huddersfield town centre. It is defined by the following characteristics:

- Predominantly flat terrain due to the abundance of roads and man-made structures;
- Residential properties following strict grid structures arranged along the local roads;
- A predominantly residential land use with industrial areas near the railway line by Lockwood Station;
- Few listed buildings; and

- Typically, good green infrastructure network with private gardens and roadside planting contributing. Sports fields located in the western extent of the TCA provide larger areas of accessible green space.

10.4.74 This TCA is perceived as a busy residential area which is an extension to Huddersfield, with a high density of built form.

10.4.75 Due to its residential character with varying styles of built form this TCA is considered to be of **Low sensitivity**.

TCA 5: Huddersfield North and Urban Fringe

10.4.76 This TCA lies to the west and north of the Scheme. It is defined by the following characteristics:

- Slightly undulating landform with highest point to the north;
- Residential properties following an irregular pattern which typically follows local roads;
- Urban fringe which gradually leads into the countryside in the northern extent of the TCA;
- A large number of listed buildings particularly along Halifax Road and Westbourne Road;
- Greenhead Park is a registered park located in the centre of this TCA;
- Several pockets of green space in the form of playing fields and arable fields throughout this TCA. Good tree cover along Halifax Road contributes to the local green infrastructure network;
- The majority of this TCA is regarded as an extension to Huddersfield. The local landform affords views towards the town centre from most locations, which adds to the urban feel of the TCA; and
- The northern extent of the TCA is perceived as smaller scale, peri-urban with stronger links to the local countryside.

10.4.77 Due to the high density of listed buildings and the value of the local green infrastructure network, this TCA is considered to be of **Medium sensitivity**.

TCA 6: Bradley

10.4.78 This TCA lies to the east of LCA 4. It is defined by the following characteristics:

- Predominantly flat area with slight variations in topography;
- An irregular built form pattern that is typically divided into crescents and cul-de-sacs throughout the TCA;
- Three listed buildings are located in this TCA;
- The Kirklees Way is located in the northern extent of this TCA and connects the area with the Green Belt to the north;
- Bradley Park is the main accessible green space located at the centre of this TCA; and
- Residential properties in combination with road-side planting provide a good amount of tree planting.

10.4.79 Perceptually, this TCA has some visual connections to the elevated agricultural land to the south-east and appears open and green as a result. However, most of this TCA is dominated by the network of roads and an array of architectural styles which erode a strong sense of place.

10.4.80 Since this TCA is a residential area with limited contribution to its small number of designations, it is considered to be of **Low sensitivity**.

TCA 7: Mirfield

10.4.81 This TCA lies between the two main areas of LCA 2. It is defined by the following characteristics:

- Slightly undulating landform with highest point to the north;
- Residential properties that follow an irregular pattern which typically follows local roads;
- The predominant land use is residential with 2 storey semi-detached houses;
- Two Grade II* Listed Buildings, Saint Mary's Church and the Old Rectory; and
- Limited amount of accessible green space but good network of public footpaths.

10.4.82 This TCA is perceived as a busy, medium scale settlement area. Views to the surrounding countryside become more frequent in the higher northern extent of the TCA. The nearby railway line and A644 to the south create sound in the backdrop which is perceivable.

10.4.83 Due to the presence of two Grade II* Listed Buildings and the extensive network of PRoW, this TCA is considered to be of **Medium sensitivity**.

TCA 8: Ravensthorpe

10.4.84 This TCA lies to the west of LCA 3. It is defined by the following characteristics:

- Slightly undulating landform with highest point to the north;
- Mixed land use with a small retail centre block within the southern extent and residential properties typically being 2 storey semi-detached houses scattered throughout the TCA;
- Residential properties which follow a predominantly grid-like pattern;
- Several schools and associated playing fields; and
- A limited amount of accessible green space but good network of public footpaths.

10.4.85 Perceptually, some elevated areas afford views of the countryside to the south of the TCA. The majority of the TCA has contained views due to the intervening built form. The TCA would be seen as a busy settlement area.

10.4.86 Since the TCA is predominantly residential with some commercial space and has limited numbers of designations, it is considered to be of **Low sensitivity**.

TCA 9: Dewsbury West

10.4.87 This TCA encompasses Dewsbury centre and the urbanised area to the west of the railway line. It is defined by the following characteristics:

- Undulating landform with highest point to the north and lowest point along the railway line;
- A variety of uses ranging from residential throughout the TCA to commercial and light industrial along the railway line and to the north;
- A dense pattern of built form within the town centre that becomes more widespread in the outer residential areas;
- Two conservation areas; Dewsbury Town Centre Conservation Area and Northfields Conservation Area. The commercial and civic centre is historically located in Dewsbury centre;
- Several listed buildings, with the majority located in Dewsbury;
- Two Registered Parks and Gardens which provide well-managed, accessible open space within this TCA; and
- Good overall levels of vegetation cover, with private gardens and public green spaces contributing to the local green infrastructure network.

10.4.88 Perceptually this is a densely populated settlement with several high-quality green spaces that afford good tree cover. There is a strong visual connection to the elevated countryside to the south-east.

10.4.89 Due to the high abundance of designated features and the overall setting of this TCA it is considered to be of **High sensitivity**.

TCA10: Dewsbury East

10.4.90 This TCA lies to the east of Dewsbury town centre and encompasses a variety land uses including green space, industrial and residential land. It is defined by the following characteristics:

- An abundance of green space with the hanging Heaton Golf Club and parks and recreation grounds connecting to the wider countryside in the north-east;
- Manor Croft Academy and Hanging Heaton Golf Club are the dominant green spaces in this area;
- A varying pattern of built form is noticeable, with denser built form to the west and smaller scale residential units to the east and large commercial units on the TCA's eastern outskirts;
- A distinctive green corridor forms a separation between the town centre and the surrounding residential land; and
- This TCA has an abundance of street trees and an open, well vegetated feel to it. The strong visual connection to the elevated landscape in the south-east adds to its verdant character.

10.4.91 Due to the setting of this TCA and the high-quality green infrastructure network, this TCA is considered to be of **Medium sensitivity**.

TCA 11: Thornhill Edge

10.4.92 This TCA encompasses the western outskirts of Thornhill Edge. It is defined by the following characteristics:

- Undulating landform with highest point to the west;
- A variety of uses ranging from residential throughout the TCA to commercial and light industrial along the railway line and to the north;
- A predominantly grid like pattern of built form, with residential properties aligned along local road network;
- Adjacent to the Green Belt with Holmfirth Conservation Area located within the eastern extent of this TCA;
- Good overall levels of vegetation cover, with private gardens and public green spaces contributing to the local green infrastructure network. Overthorpe Park is the largest accessible green space in the area; and
- The TCA has an abundance of tree cover and an open, green feel to it. Perceptually it forms part of a suburban settlement with a verdant character.

10.4.93 Due to the proximity to the Green Belt and the high-quality green infrastructure in this area it is considered to be of **Medium sensitivity**.

Visual amenity and viewpoints

10.4.94 Figure 10-1 illustrates the theoretical visibility based on the existing baseline and the Scheme with the railway line at a 4m height to accommodate trains in the analysis in both Winter and Summer seasons. The ZTV is based on a DTM. It is colour coded to assist with the analysis of visibility whereby colouration represents up to 100% of the Scheme being theoretically visible

and no colouration represents no theoretical visibility of the Scheme.

10.4.95 The visual analysis has identified the following principal receptor groups which may be sensitive to visual change within the Route Section:

- Residents;
- Users of PRoW;
- Pedestrians;
- Users of the railway;
- Motorists; and
- Cyclists.

10.4.96 Views which are within or near to the Scheme and are considered to be representative of these receptors are described in Table 10-7 and locations shown in Figure 10-1.

10.4.97 Users of the railway, including people travelling on trains or waiting on platforms, would notice changes to the railway line from a close range. However, since this receptor group is using the railway infrastructure, it is considered that these would not experience significant effects as a result of the Scheme due to their acceptance of the infrastructure as part of their journey. As a result, views from platforms and trains have not been included as part of this assessment, since the anticipated changes and effects would not be representative of the effects on the landscape/townscape context and visual amenity of the railway line.

10.4.98 Residential receptors within the study area currently experience a range of different views depending on their location and orientation of windows in relation to the railway. The sensitivity of all residential receptor groups is assumed to be High as determined using the methodology identified in Table 10-3. It is acknowledged that residential receptors may experience a change in their view as a result of the Scheme. However due to the nature of the Scheme, likely significant effects to residential receptors are anticipated to be limited to close-range views.

10.4.99 Table 10-7 provides a baseline description for the selected representative views. These viewpoints provide an overview of the theoretical visibility of the Scheme and assess where sight lines are available to the railway and the approach to the selection of viewpoints is outlined in paragraph 10.3.17. The assessment process identified that the proposed Scheme is not visible from all viewpoint locations however these are included within the table as they provide an indication of the railway line's context within its wider landscape and townscape setting. Where the Scheme is visible from viewpoints, the viewpoint information is provided in bold and shaded blue.

Table 10-7 Description of views

Viewpoint no. and location	Approximate coordinates	Distance from Scheme boundary	Description of view	Visual receptors	Sensitivity Rationale	Sensitivity to change
Viewpoint 1 View looking south-east towards the railway	X: 413218 Y: 416519	170m	View from a footpath (not designated) in Gledholt Woods LNR looking east towards the railway line. The view is dominated by grass in the foreground and a dense belt of trees and shrubs on the edge of the field. Higher ground on the outskirts of Huddersfield is visible above the treeline to the right of this view. The railway line is not visible from this location. During the summer months, visibility is limited to close-range views due to the dense belt of vegetation in the centre of this view. The local undulating topography is visible above the tree line to the right of this view. During the winter months, when the trees are not in leaf, visibility remains limited due to the dense vegetation cover. Residential properties can be glimpsed through the branches of the trees in the centre of this view.	Users of PRoW	Locally designated PRoW through local nature reserve, easily accessible	Medium
Viewpoint 2 View looking north-east towards the Town Centre	X: 412636 Y: 414405	1.8km	View from Beaumont Park looking north east towards the Town Centre. The viewpoint is located on an elevated vantage point which gives expansive views towards Castle Hill located to the south-west of Huddersfield. The left of this view is dominated by ornamental planting and trees which limits visibility. The view affords visibility of a section of railway line which does not form part of Route Section 1 or the Scheme.	Park Users	Locally designated PRoW in Beaumont Park, Registered Park and Garden, high-profile park, slightly elevated, mid-range view	Medium
Viewpoint 3 View looking east towards the railway	X: 413473 Y: 416249	40m	View looking along Springwood Footpath HUD/327/10 next to the railway line. The view is channelled along Springwood Footpath. It is dominated by a stone wall and trees to the left. To the right of the view is a fence set atop a stone wall with trees and shrubs protruding above the fence line. Users of PRoW would experience this view as part of a journey through a busy town centre. Residential receptors would have limited visibility of this view, due to the orientation of their windows as well as intervening built form and vegetation surrounding the properties along Longroyd Place. Due to intervening built form and vegetation there is no visibility of the railway line from this location.	Users of PRoW	Locally designated PRoW near railway tunnel, near listed buildings	Medium
				Residents	The windows of the residential properties are not oriented towards the railway line and therefore the visual envelope is restricted	High
Viewpoint 4 **View looking west towards the railway**	**X: 415423** **Y: 416906**	**1.1km**	**View from Kilner Bank and elevated residential receptors to the east looking west towards the Town Centre.** **The view is from an elevated, publicly accessible road which gives an overview of parts of Huddersfield town centre.** **The railway corridor is visible to the right of this view. Due to the relative distance from the railway and the intervening built environment it is not easily discernible.** **During the winter months, when the trees are not in leaf, visibility of the townscape is increased. However, the visibility of the railway remains limited due to the relative distance from the railway line.**	**Motorists**	**View from elevated road with expansive views of study area. No designation and would be experienced as part of a journey,**	**Low**
				Residents	**Views from properties would be of the busy town centre, in anticipation of changing townscape.**	**High**
Viewpoint 5 **View looking east towards the railway**	**X: 414153** **Y: 417037**	**200m**	**View from Fitzwilliam Street (pedestrian walkway and road) looking east towards the railway line. This viewpoint is located in the centre of Huddersfield within the Huddersfield Town Centre Conservation Area.** **The view is channelled along Fitzwilliam Street. The Huddersfield Viaduct is visible to the left of the view. Huddersfield town centre can be seen in the background. Vegetation can be seen in the centre**	**Motorists**	**Huddersfield Town Centre Conservation Area;** **View would be experienced as part of a journey**	**Low**

Viewpoint no. and location	Approximate coordinates	Distance from Scheme boundary	Description of view	Visual receptors	Sensitivity Rationale	Sensitivity to change
(Photomontage)			**of the view, with some built form protruding above the tree line. The red brick St George's warehouse to the north of Huddersfield Station is visible behind the trees to the right of this view. There are residential and business properties visible to the right of this view.** **For motorists and pedestrians this view would be part of a journey along a busy road.** **Residential properties within the Conservation Area are directed towards the railway line and may afford visibility of the railway viaduct.** **During the winter months, when the trees are not in leaf, a further section of the Huddersfield Viaduct is visible behind the trees in the centre of this view.**	**Residents**	**Properties are located within a conservation area in a historic town centre and so residents may expect views of heritage assets and town centre features**	**High**
				Pedestrians	**Locally designated Huddersfield town centre conservation area;** **Close range view from west of railway line.**	**Medium**
Viewpoint 6 View looking south towards the railway	X: 413535 Y: 419312	1.8km	View from PRoW HUD/389/30, leading through a residential area to the south of Huddersfield Golf Club. View shows predominantly residential properties, with some ornamental vegetation in private gardens. The railway line is not visible due to the intervening built form and the relative distance between the viewpoint and the existing railway line.	Residents	View from residential development near open greenspace in the Green Belt. Expansive views across Huddersfield and towards the wider countryside.	High
				Users of PRoW	View from nationally designated PRoW, near open greenspace and adjacent to residential properties, in Green Belt, elevated view	Medium
Viewpoint 7 View looking south-east towards the railway	X: 413209 Y: 417985	1.4km	View from footpath in the Birkby Conservation Area and cemetery (Rose Hill Burial Ground) looking south-east towards the Town Centre. Several trees of varying species are located in the centre of this view. To the left of the view, the boundary fence of the cemetery is visible with a large oak tree and other vegetation is visible behind the fence. To the right, the view overlooks the natural burial ground. A small pocket of woodland is visible in the background of this view with built form visible behind the trees. Due to the undulating topography and the relative distance from the railway line, the railway is not visible from this location.	Users of PRoW	View from nationally designated PRoW, elevated view to north-west	Medium
				Users of cemetery	View from locally designated conservation area and from within cemetery	Medium
Viewpoint 8 View looking south towards the railway	X: 410858 Y: 418886	3.9km	View looking south towards the Town Centre from Kirklees Way located outside of study area. This is an expansive view which gives an overview of the study area and its context. It is dominated by built form located in the suburban fringe of Huddersfield and interspersed with vegetation within gardens and along roads. The railway line is not visible from this location due to the undulating topography and the intervening built form and vegetation visible in this view.	Users of PRoW	View from nationally designated PRoW, elevated view, long-distance view giving overview of railway line	Medium
Viewpoint 9 View looking north towards the railway	X: 415773 Y: 418625	170m	View looking north towards the railway from PRoW on a bridge by Lock 7 of the Huddersfield Broad Canal. The view is channelled along the bridge and looks towards dense vegetation on the bank of the Canal leading towards the railway line. Due to the intervening vegetation and topography, the railway corridor is not visible from this location.	Users of PRoW	View from locally valued Canal path next to Lock 7; Close- range view	Medium
Viewpoint 10 **View looking north towards the railway** **(Photomontage)**	**X: 415216** **Y: 414133**	**2.8km**	**View looking north towards Huddersfield from PRoW HUD/169/30 on Castle Hill next to Victoria Tower. This is a long-distance view, which gives an overview of the town's context and surrounding settlement structure. It is located adjacent to a Scheduled Monument and within the Green Belt.** **The railway is visible from this location. However, it is not a prominent feature within this view. The view changes according to the seasons. During the winter months, when vegetation is not in leaf, aspects of the railway line are more visible.**	**Users of PRoW**	**PRoW (long distance) near scheduled monument and nearby listed building, long-distance view from south-east**	**High**

Viewpoint no. and location	Approximate coordinates	Distance from Scheme boundary	Description of view	Visual receptors	Sensitivity Rationale	Sensitivity to change
Viewpoint 11 View looking north-west towards the railway	X: 414494 Y: 415806	970m	View looking north-west towards the Town Centre from PRoW HUD/250/60 located on the bridge over the River Colne. The view is channelled along the bridge and on towards Queen Street South, which gives a glimpse of Huddersfield centre. For pedestrians, users of PRoW and cyclists across the bridge, this view would be experienced as part of a journey through a busy town. Motorists along Queens Mill Road would be able to glimpse views from across the bridge. Due to intervening built form and vegetation the railway line is not visible from this location.	Users of PRoW	PRoW over bridge in/near town centre looking towards Conservation Area – users of PRoW would be there to experience the landscape/townscape	Medium
				Pedestrians	PRoW over bridge in/near town centre looking towards Conservation Area	Low
				Cyclists	Cyclists using the bridge in/near town centre looking towards Conservation Area	Low
				Motorists	View from Queens Mill Road as part of a journey	Low
Viewpoint 12 View looking south-east towards the railway	X: 414350 Y: 417932	430m	View looking south-east from a footpath near the Birkby Bradley Greenway. This view is defined by its location in a residential area with some public amenity space. The middle ground of the view is dominated by trees. The view is channelled along Old Halifax Road, which is lined by residential properties and shows a change in topography towards Huddersfield town centre. The railway line is not visible from this location during the summer months. Trees located on the embankment to the north of the railway line to the south-west of Hillhouse Lane Underbridge (MVL3/94) are visible in the centre of this view. The view would be experienced by pedestrians and motorists as part of a journey. Residential properties may afford views of the railway corridor. During the winter months, when the trees are not in leaf, built form can be glimpsed between the branches. The railway is not visible from this location.	Pedestrians	View from Birkby Conservation Area – view would be experienced as part of a journey	Low
				Motorists	View from Brikbry Conservation Area – view would be experienced as part of a journey along a busy road	Low
				Residents	**Residential properties may afford views of the railway line, main focus would be busy town centre view.**	**High**
Viewpoint 13 **View looking south towards the railway line** **(Photomontage)**	**X: 415974** **Y: 418957**	**25m**	**View looking south towards the railway line from PRoW adjacent to Ridings Underbridge (MVL3/99). The foreground of the view is dominated by surrounding dense vegetation. Built form is visible in the background of this view. The undulating topography surrounding Huddersfield becomes apparent in the backdrop.** **The railway line is visible in the foreground of this view through gaps in the vegetation. Railway tracks and yellow railings can be seen from this location.** **During the winter months, the railway line becomes more visible and forms a focal point of this view.**	**Users of PRoW**	**Intersection of National Cycle Route and PRoW adjacent to railway tracks**	**Medium**
Viewpoint 14 **View looking west towards the railway**	**X: 417196** **Y: 418612**	**1km**	**View looking west towards the railway line from PRoW HUD/65/40 in Dalton Bank LNR. The foreground is dominated by meadow grass which transitions into scrub and a dense tree line in the centre of the view. Industrial buildings protrude above the tree line. In the distance, the undulating topography surrounding Huddersfield becomes apparent.** **During the summer months, the existing vegetation screens the tracks from view and there is no visibility of the railway line.** **During the winter months, when trees are not in leaf, the railway line is visible from this location. The railway line to the west of Deighton Station is visible through the trees. The railway line around Ridings Underbridge (MVL3/99) is centrally visible in the background of this view.**	**Users of PRoW**	**View from PRoW in Local Nature Reserve and near open green space**	**Medium**
Viewpoint 15	**X: 417095** **Y: 419858**	**5m**	**View from NCN route 66 on Wheatley's Overbridge (MVL3/103) crossing the railway line. The view is dominated by a wire fence which lines the bridge.**	**Pedestrians**	**View from NCN crossing railway line**	**Low**

Viewpoint no. and location	Approximate coordinates	Distance from Scheme boundary	Description of view	Visual receptors	Sensitivity Rationale	Sensitivity to change
View from pedestrian bridge above the railway line			**Beyond the fence, the railway and the densely vegetated bank on either side of the railway line are visible. The railway is a prominent feature in this view.** **There would be limited change to this view during the winter. While the vegetation would lose its leaves and change the appearance of the edge of the railway line, the overall visibility would not be altered.**		**over listed bridge, low quality view of the railway line in both directions**	
				Cyclists	**View from NCN crossing railway line over listed bridge, low quality view of railway line in both directions**	**Low**
Viewpoint 16 View looking south-east towards the railway	X: 417019 Y: 421045	830m	View looking south-east towards the Town Centre from the Kirklees Way. The view shows an open field on a slope that is typical for the local topography. A post and wire fence is visible in the foreground. An electricity pylon and cables are located to the right of this view. The background of the view features varying levels of vegetation with glimpses of built form visible among the trees. Railway infrastructure not affected by the Scheme is visible from this location.	Users of PRoW	Locally designated PRoW, mid-range view to north of railway (not affected by Scheme), in Green Belt designation	Medium
Viewpoint 17 **View looking south-east towards the railway**	**X: 418128** **Y: 422522**	**1.9km**	**Long-distance view looking south-east from the PRoW SPE/160/10. The view shows agricultural land on characteristic, undulating topography for the local context. The local vegetation pattern featuring pockets of woodland, lines of trees and hedgerows are represented in this view. Typical field boundaries can be seen to the left of this view in the form of post and wire fencing and hedgerows. A focal point of this view is a tall, white chimney emitting smoke in the middle ground of this view. Due to its elevated location, the viewpoint gives an overview of the Scheme. Huddersfield is visible in the backdrop of this view. Scattered built form is visible on a hill to the left of this view.** **The railway line is visible from this location. It can be seen in the middle ground of this view adjacent to the white chimney.** **During the winter months, when trees are not in leaf, visibility of the settlement is increased.**	**Users of PRoW**	**View from locally designated footpath in a rural setting with views across the local countryside**	**Medium**
Viewpoint 18 View from north-west of the railway	X: 417962 Y: 422107	1.3km	View from PRoW looking south-east towards the railway line. The view shows a rural landscape dominated by agricultural land and pockets of woodland. Both the foreground and the backdrop of this view reflect the local field pattern. The middle ground of the view features a dense belt of trees and shrubs. A small woodland is visible to the left of this view. The railway is not visible from this location.	Users of PRoW	View from Kirklees Way near scheduled monument in a rural setting with views across the local countryside	Medium
Viewpoint 19 **View looking south-west towards the railway** **(Photomontage)**	**X: 419128** **Y: 421335**	**980m**	**View from the PRoW MIR/23/10 adjacent to residential properties. The view shows a field with typical field boundaries made up of a stone wall and hedgerow in the foreground. The background shows an expansive overview of Huddersfield and its surrounding context.** **The railway line is visible from this location. A viaduct leading out from Huddersfield centre can be seen in the far distance of this view.** **The view would be experienced by users of the PRoW. Residential properties adjacent to the PRoW are oriented towards the railway corridor and would have potential views of the railway line.** **During the winter months, there would be limited change to this view.**	**Users of PRoW**	**Intersection of PRoW in open space near residential properties, in Green Belt**	**Medium**
				Residents	**Residential properties afford views of the railway corridor and surrounding vegetation**	**High**

Viewpoint no. and location	Approximate coordinates	Distance from Scheme boundary	Description of view	Visual receptors	Sensitivity Rationale	Sensitivity to change
Viewpoint 20 **View looking north-west towards the railway** **(Photomontage)**	**X: 416481** **Y: 418886**	**640m**	**View from a sports field adjacent to residential properties and from those residential properties looking towards the railway line. The view is dominated by a sports pitch in the foreground and rugby goal posts can be seen to the right of this view. The sports field is bound by a line of trees which is visible in the backdrop of this view.** **The railway line is not directly visible from this location due to the intervening vegetation located on an embankment in front of the railway line. A dense buffer of vegetation along the Huddersfield Broad Canal and the railway embankment limit visibility.** **This view would be experienced by walkers on their way to PRoW and people using the sports pitch. Residents from the adjacent properties would experience a similar view.** **During the winter months the railway line becomes visible through the trees.**	**Pedestrians**	**Intersection of PRoW in open space near residential properties, in Green Belt**	**Low**
				Residents	**Residential properties afford views of the railway corridor and surrounding vegetation**	**High**
Viewpoint 21 **View from Calder Road bridge across the railway line** **(Photomontage)**	**X: 422727** **Y: 419893**	**2m**	**This view looks towards Ravensthorpe Station from Calder Road Overbridge (MVN2/202) across the railway line. The view is dominated by the railway line which forks into two separate routes at this location. The red Station Footbridge (MDL1/4) across the railway line which is part of Ravensthorpe Station can be seen in the centre of this view. Two platforms at Ravensthorpe Station can be seen behind the pedestrian bridge. An electricity pylon dominates the skyline to the left of the pedestrian bridge. A well-vegetated embankment along the railway can be seen on either side of the railway line. A distribution warehouse is partially visible to the left of the railway line. A light industrial building is visible through the trees to the right of the railway line.** **This view would be experienced by pedestrians walking across the bridge and motorists driving across the bridge.** **During the winter months, the visibility of the railway line remains the same.**	**Pedestrians**	**View from road bridge over railway line, looking towards Ravensthorpe Station. This would be part of a journey.**	**Low**
				Motorists	**View from road bridge over railway line. This would be part of a journey**	**Low**
Viewpoint 22 View looking south towards the railway	X: 421279 Y: 420383	980m	View looking south towards the railway from PRoW MIR/48/30, adjacent to the Grade II* listed Church of St Mary. The view is dominated by open fields with a line of vegetation in the background. Left of the view is a block of residential development visible through a clearing in the vegetation line. There is partial visibility of residential development through gaps in the tree line. The railway is not visible from this viewpoint due to the low-lying topography and vegetation. There is no visibility of the railway in winter.	Users of PRoW	PRoW next to locally designated St Mary the Virgin Church in open space near residential properties, in the Green Belt	Medium
Viewpoint 23 **View looking north towards the railway**	**X: 422327** **Y: 419691**	**10m**	**View from PRoW adjacent to the railway line. The view is channelled along the footpath over Hunger Hill Overbridge (MVN2/201). To the left of the view, vegetation dominates the foreground. A metal fence and brick wall are visible through gaps in the vegetation. Trees can be seen behind the fence obscuring the railway line from view. To the right of the view, similarly overgrown vegetation dominates the foreground. A wall and construction fence can be seen behind scrubby vegetation in the foreground. Trees dominate the background of this view.** **In summer, the railway is not visible due to the intervening cover of vegetation.** **During the winter, when trees are not in leaf and the scrubby vegetation has died down, the railway line is visible on both sides of the bridge.**	**Users of PRoW**	**Locally designated PRoW looking towards crossing over the railway line, close range of the site.**	**Medium**
Viewpoint 24 View looking south towards the railway	X: 420722 Y: 419814	400m	View from NCN Route 66 and public footpath looking south towards the railway line. The view overlooks a recreational field in the foreground including sports pitches and play equipment. A dense line of vegetation forms the background of this view. Built form is visible to the left and right of this view. The undulating topography surrounding Huddersfield is visible in the backdrop of this view above the	Users of PRoW	National cycle route north of the railway line adjacent to cricket grounds. Close-range view across sports field	Medium

Viewpoint no. and location	Approximate coordinates	Distance from Scheme boundary	Description of view	Visual receptors	Sensitivity Rationale	Sensitivity to change
			hedgerows can be seen in the background. The railway corridor is not visible from this location. During the winter months, when trees are not in leaf, light industrial and commercial buildings can be seen through the dense line of trees.		and commercial properties	
				Pedestrians	Close-range view across sports field and commercial properties along a busy road	Low
				Users of recreational ground	. Close-range view across sports field and commercial properties	Medium
				Cyclists	National cycle route north of the railway line adjacent to cricket grounds. Close-range view across sports field and commercial properties	Medium
Viewpoint 25 **View looking north-west towards the railway** **(Photomontage)**	**X: 423630** **Y: 420543**	**280m**	**View from the PRoW and NCN Route 66, looking along the River Calder towards the railway. The view is channelled along the footbridge.** **Visibility of the railway line on the River Calder Underbridge is restricted due to the aqueduct in the foreground. A bridge foundation located in the watercourse can be seen in the background.** **Electricity pylons and an industrial chimney protrude above the skyline in the backdrop of this view. Residential properties are visible above the vegetation in the right of this view. Residential properties are visible above the vegetation in the right of this view. The view would be experienced by pedestrians and cyclists.** **During the winter months, when trees are not in leaf, there is no change to the visibility of the River Calder Underbridge, since the view is channelled along the River Calder.**	**Users of PRoW**	**NCN Route Intersecting locally designated PRoW near residential properties.**	**Medium**
				Cyclists	**NCN Route Intersecting locally designated PRoW near residential properties.**	**Medium**
Viewpoint 26 **View looking north towards the railway**	**X: 420402** **Y: 419211**	**190m**	**View from Hopton New Road looking north towards the railway line. The view looks over a stone wall along Hopton New Road towards Mirfield Station and the station car park. A transmission pole is located to the right of the carpark. The foreground of the view is dominated by the busy road to the left and the field to the right. A lamp post is located in the centre of this view. A brick building associated with the Station Business Park lies adjacent to the road in the middle distance of this view. Station Road Underbridge (MVN2/193) is visible in the background of this view. Residential properties can be seen to the far left of this view. Holme Bank Business Park is partially visible in the far right of this view. Built form can be glimpsed through the vegetation forming the backdrop to this view.** **This view would be experienced by pedestrians and motorists along Hopton New Road, potentially on their way to Mirfield Station.** **During the winter months, when the trees are not in leaf, visibility of the railway line and Mirfield Station is increased.**	**Pedestrians**	**View from road bridge looking towards Mirfield Station, clear views of the site.**	**Low**
				Motorists	**View from road bridge looking towards Mirfield Station, clear views of the site.**	**Low**
Viewpoint 27 View looking north-west towards the railway	X: 423219 Y: 419568	450m	View from the PRoW looking north-west. The view is dominated by a hedgerow in the foreground and looks through a gap in the vegetation. The view looks across agricultural land towards residential properties in the background of this view. Due to the intervening built form and vegetation, the railway line is not visible from this viewpoint.	Users of PRoW	Crossing of multiple locally designated PRoW south of residential properties in open countryside	Medium

Viewpoint no. and location	Approximate coordinates	Distance from Scheme boundary	Description of view	Visual receptors	Sensitivity Rationale	Sensitivity to change
Viewpoint 28 View looking south towards the railway	X: 421204 Y: 422510	3.2km	The viewpoint is taken from PRoW SPE/145/10 on higher lying ground. An open field dominates the foreground to the left of the view. A post and wire fence, which marks the field boundary, is visible in the foreground. A hedgerow, which bounds the adjacent field, is located to the right of the view. The railway is not visible from this location due to the intervening vegetation and the local topography.	Users of PRoW	Crossing of multiple locally designated PRoW south of residential properties in open countryside	Medium
Viewpoint 29 View looking west towards the railway	X: 425796 Y: 419178	2.3km	View from PRoW DEW/82/10 looking west towards the railway. The view is dominated by a line of vegetation in the centre of this view. The footpath is vegetated on both sides. Overhead power lines are visible to the left of the view. Due to the intervening vegetation and relative distance, there is no visibility of the railway line.	Users of PRoW	View from Kirklees Way to the east of the railway line. Nationally designated footpath, within a conservation area.	Medium
Viewpoint 30 View looking north towards the railway	X: 418961 Y: 415923	4.4km	View from PRoW on Thurgory Lane looking north towards the railway. The view shows agricultural land with typical field boundaries such as stone walls and hedgerows. A wooden farm building is visible to the left of this view. The undulating topography that is typical for this area is clearly discernible in this view. Scattered residential properties can be seen in the distance. During the winter months additional built form is visible to the left of this view. Due to the intervening landform and vegetation, the railway corridor is not visible from this location.	Users of PRoW	View from locally designated PRoW where it meets Thurgory Lane. Long-distance view which shows landscape context	Medium
				Motorists	View from Thurgory Lane	Low
Viewpoint 31 View looking east towards the railway	X: 413621 Y: 416849	640m	View looking east towards the Town Centre from Greenhead Park. The view is channelled along the footpath; there is an avenue of trees along the path as well as some benches. Left of the view includes trees, ornate shrubs, and a large fountain feature in the background. Right of the view is dominated by low hedging. The park is a Registered Park and Garden and is frequented by pedestrians entering and using park facilities. Due to the intervening built form and the local topography, the railway line is not visible from this location.	Park users	View from Registered Park in conservation Area in close proximity to War memorial	High
Viewpoint 32 **View looking south towards the railway**	**X: 418200** **Y: 421133**	**425m**	**View from Kirklees Way adjacent to a carpark to the north of Huddersfield Road. This is a busy view which shows Huddersfield Road in the foreground. A large industrial building and chimney can be seen in the middle ground of this view. Scattered trees are in the centre and to the right of this view.** **The railway is visible in the middle ground of the view. Parts of a railway bridge across the River Calder can be seen. The bridge lies in contrast to the backdrop of this view, which shows a rural setting with residential properties among pockets of woodland adjacent to agricultural land. However, the railway line infrastructure does not protrude above the skyline, which is defined by the local undulating topography and residential properties located on the top of a visible hill.** **The view would change depending on the season. In winter more of the railway becomes visible.**	**Users of PRoW**	**View from Public House Car Park and entrance to locally designated PRoW.**	**Medium**
				Motorists	**Users of Huddersfield Road and car parking area**	**Low**
Viewpoint 33 View looking west towards the railway **(Photomontage)**	X: 417507 Y: 419565	520m	View from PRoW HUD/63/10. The view is from an elevated vantage point and gives an expansive view of the surrounding settlement. The railway line is not visible from this location due to the intervening built form and vegetation. The railway line is located in a cutting behind a dense line of trees which can be seen in this view. Vegetation located on the embankment forming the cutting can be seen from this location. During the winter months, when trees are not in leaf, visibility of the embankment surrounding the railway line is increased. However, the railway line is not visible from this location.	Users of PRoW	Locally designated PRoW in Green Belt, near National Cycle Route.	Medium
Viewpoint 34 **View looking north towards the railway**	**X: 419495** **Y: 419157**	**630m**	**View from PRoW DEW/8/70 looking north towards the railway. The view is from an elevated location and shows the local settlement structure with residential properties interspersed with trees and blocks of woodland.** **While the railway is not a prominent feature in this view, it can be seen from this location.**	**Users of PRoW**	**Locally designated PRoW in Green Belt, Long distance view**	**Medium**

Viewpoint no. and location	Approximate coordinates	Distance from Scheme boundary	Description of view	Visual receptors	Sensitivity Rationale	Sensitivity to change
(Photomontage)			**During the winter, when trees are not in leaf, the visibility of the railway line is increased. However, due to the distance from the railway line, this is not a prominent feature.**			
Viewpoint 35 **View looking north towards the railway** **(Photomontage)**	**X: 419494** **Y: 418872**	**1km**	**View from PRoW MIR/65/20. The view is from an elevated location, its foreground is dominated by an undulating agricultural landscape with typical field boundaries made up of hedgerows, post and wire fences and stone walls. The view shows the local settlement structure with residential properties interspersed with trees and blocks of woodland.** **While the railway line is not a prominent feature in this view, it is visible from this location to the left of the view.**	**Users of PRoW**	**Locally designated PRoW in the Green Belt**	**Medium**
Viewpoint 36 View looking north towards the railway	X: 420550 Y: 418895	590m	This view is from the pedestrian walkway along Hopton Lane near residential properties looking north towards the railway. The view is dominated by arable fields and grassland in the foreground which is divided by characteristic field boundaries such as hedgerows and stone walls in the middle ground of the view. Residential development can be seen in the backdrop of the view. A small building and shipping container are visible to the right of the view. Due to the undulating topography and the intervening vegetation, the railway line is not visible from this location.	Pedestrians	Walkers in the Green Belt	Low
				Motorists	Motorists along Hopton Lane	Low
				Residents	Residential properties near Hopton Lane	High
Viewpoint 37 View looking north towards the railway	X: 421272 Y: 418921	460m	View from PRoW to the south of the railway. The view shows agricultural land with characteristic hedgerows in the foreground. An isolated tree is located within the field boundary. Residential properties are located in the left of this view. To the right of this view, scrap materials and containers are stored in a land parcel associated with a light industrial unit. To the far right, dense vegetation located in the local woodland is visible. Due to the intervening vegetation and built form, the railway corridor is not visible from this location. During the winter months, when trees are not in leaf, built form can be glimpsed between the trees in the background. However, the railway line cannot be seen.	Users of PRoW	View from locally designated PRoW in the Green Belt and near Ancient Woodlands (Briery Bank & Newhall Wood)	Medium
Viewpoint 38 View looking north towards the railway	X: 423396 Y: 419336	680m	View from the PRoW looking north towards the railway. The view is interrupted by dense vegetation on either side of the view. The view includes open fields in the middle-ground with low hedge lines. The background features dense vegetation lines. Snippets of the built form are visible through clearings in the tree lines. The railway line is not visible from this viewpoint. During the winter months, when trees are not in leaf, the overall visibility of the townscape is increased. The railway is not visible.	Users of PRoW	View form locally designated PRoW in the Green Belt, near Ancient Woodland	Medium
Viewpoint 39 **View looking north towards the railway**	**X: 423227** **Y: 418547**	**1.5km**	**View from PRoW DEW/6/60 looking north towards the railway. View looking across an open field towards Ravensthorpe Station. Ravenshall School and residential properties are visible in the middle ground of this view. To the left of the view, dense vegetation is visible with electricity pylons and telephone poles protruding above the tree line. To the right of the view, a line of trees and dense vegetation is visible. The background of the view shows the local undulating topography. Residential properties and areas of vegetation and woodland are visible in the background.** **Due to the intervening vegetation and built form, the railway line is not visible from this location.** **During the winter months, when trees are not in leaf, built form is more easily discernible through the lines of vegetation. Calder & Hebble Canal Underbridge (MDL1/6) is discernible in the background of this view. However, due to the distance from the railway corridor and the intervening built form and vegetation, the bridge is not a prominent feature in this view.**	**Users of PRoW**	**View from locally designated PRoW in a countryside setting**	**Medium**
Viewpoint 40	**X: 414268** **Y: 416762**	**10m**	**View from footpath along New North Parade over Westgate Overbridge (MVL3/90) in Huddersfield Town Centre looking towards Huddersfield Station. The railway line is a prominent feature in this view. The view looks across the railway line towards the Grade I listed station building. The view is**	**Pedestrians**	**View of Huddersfield Station from within Huddersfield Town**	**Medium**

Viewpoint no. and location	Approximate coordinates	Distance from Scheme boundary	Description of view	Visual receptors	Sensitivity Rationale	Sensitivity to change
View looking East towards Huddersfield Station (Photomontage)			focussed on the platforms and train tracks in the centre of this view. The existing train shed over the platforms is prominent from this location. Built form along the sides of the railway corridor is visible to the left and right of this view. The Grade II listed George Hotel is visible to the right of the railway station, adjacent to a group of trees located on St. George's Square. The local, undulating topography becomes apparent in the backdrop of this view, with hills surrounding the Huddersfield area forming part of the skyline. The waste facility chimney visible in the background protrudes above the skyline from this location. This view would be experienced by pedestrians walking along the footpath through the Town Centre. The visibility of Huddersfield Station is independent from seasonal variations and no changes would occur to this view during the winter months.		Centre Conservation Area.	
Viewpoint 41 View looking north-east toward the railway (Photomontage)	X: 418679 Y: 420324	75m	View from footpath leading off Helm Lane to the south of Helm Lodge and the railway line. The view looks across an open field which is used as a paddock for horses. A fence lining the side of the footpath is visible along the edge of the field. Telephone poles and wires cut across the view. The railway line, which is elevated on an embankment, is visible in the centre of this view behind the paddock. Scattered trees and shrubs line the side of the railway line, which limits its visibility. The backdrop of the view features undulating topography with residential properties visible in the distance. An area of dense tree cover, visible in the background, forms part of the Church of the Resurrection grounds. This view would be experienced by users of PRoW walking to the south of the railway line. During the winter months, when vegetation is not in leaf, the visibility of the railway line is enhanced. Overall, more built form becomes visible from this location with the reduced foliage.	Users of PRoW	View from locally designated PRoW	Medium
Viewpoint 42 View looking north towards the railway line (Photomontage)	X: 423486 Y: 420492	115m	View from PRoW on the southern bank of the River Calder looking towards River Calder Underbridge (MDL1/8). The view is channelled along the footpath towards the bridge in the background. The foreground is dominated by grass and scrub to the left and right of the footpath. The river is visible to the right of this view, running parallel to the footpath. The Spen Valley Green Way is visible below the bridge on the right-hand side of the river. A brick chimney associated with Ravens Ing Mills and an electricity pylon protrude above the bridge and surrounding vegetation in the backdrop of this view. This view would be experienced by users of the footpath. During the winter months visibility of the bridge marginally increases, due to a reduction in foliage cover. Built form becomes more easily discernible in the backdrop on the northern bank of the river to the right of this view.	Users of PRoW	View from locally designated PRoW	Medium

10.5 Potential effects

Assessment of potential effects

10.5.1 An assessment of the effects resulting from the Scheme 'during construction' and 'operational' phases are presented separately in this chapter. There may be some overlap between the construction activities and operational phase of the Scheme. However, temporary and permanent effects have been considered within the phase where the main magnitude of change arises.

10.5.2 This report provides a summary of scheme-wide effects arising as a result of the railway infrastructure works forming part of the Scheme. For detailed analysis of potential effects applying to Route Sections 1 to 6 refer to the Route Section Assessments in Volume 2ii of the ES.

Construction

10.5.3 During the construction phase the Scheme is likely to give rise to a number of changes to the landscape/townscape character and visual amenity, arising from site preparation and construction activities. The construction phase is predominantly a period of temporary change; however, any earthmoving, recontouring or building work can potentially result in permanent changes to the landscape. For the purpose of this assessment, it has been assumed that each compound will remain in place for the duration of the Scheme construction i.e. a period of up to four years. However, the exact length of time will vary according to the programme for the particular route section which will be developed during detailed design. The construction activities in themselves could also be a source of significant disruption and visual intrusion. Effects described as temporary are relevant to the construction phase for a duration of approximately four years, unless stated otherwise. The principal construction operations likely to have temporary effects on landscape character and visual amenity include:

- Site clearance works (including vegetation removal);
- Fixed and mobile construction plant;
- Construction haulage;
- Site compound(s), utilities and protective hoarding;
- Groundworks and construction of substructure (e.g. excavations, foundations and perimeter walls); and
- Increased movement and disturbance associated with construction works and the operation of construction plant.

10.5.4 Construction lighting may become noticeable at night, especially during the autumn and winter months. This would be most noticeable around construction compounds. The Code of Construction Practice (CoCP) will put in place measures to manage this issue appropriately (see Part A of the CoCP in Appendix 2-1). This specifies that the intensity and timing of the construction lighting would be appropriate and in a way that reduces detrimental impact on the surrounding landscape, townscape and visual amenity as far as reasonably practical.

Operation

10.5.5 The effect of the completed works would persist during the operational life of the Scheme. For the purposes of this assessment, 'operational' considers Year 1 and Year 15 of the completed scheme to account for the worst-case scenario of unmatured vegetation and the maturation of proposed vegetation including planting to mitigate effects or enhance the Scheme. The principal aspects which are likely to have permanent effects on the landscape character and visual amenity of the Scheme and its surroundings are:

- OLE and associated structures/gantries to provide electricity to the railway;
- Changes to stations;
- Earthworks, including the cutting at Heaton Lodge;
- Changes to lighting along the railway line and at railway stations;
- Retaining walls;
- Lineside palisade fencing of approximately 1.8m high;
- Permanent railway compounds for maintenance work and storage facilities;
- New Ravensthorpe Viaduct and grade separated junction, including earthworks; and
- Vegetation clearance.

Landscape character and townscape character

10.5.6 The potential effects on landscape and townscape character would vary during the construction phase and during the operational phase. The following is a summary of the potential Scheme-wide effects. For detailed analysis of potential effects applying to Route Sections 1 to 6 refer to Section 10.3 of the Route Section Assessments in Volume 2ii of the ES.

10.5.7 During the construction phase several of the identified LCAs and TCAs would experience temporary adverse effects due to the Scheme. LCAs 3, 4, 5 and 8 and TCAs 5, 6 and 7 would experience temporary minor adverse effects due to their close proximity to the Scheme, which are not significant. TCAs 1 and 9 would experience temporary moderate adverse effects, which are significant. Increased traffic to and from the site and partially constructed railway infrastructure within the Scheme boundary would be noticeable from within these character areas. Construction lighting would also be noticeable, particularly during the autumn and winter months. However, the effects would be localised and temporary.

10.5.8 During the operational phase, there would be no anticipated significant effects on the local landscape and townscape character areas. The proposed changes as a result of the Scheme would be in keeping with the character of the existing railway infrastructure and would not disrupt the integrity of the local character.

10.5.9 For the assessment of potential effects on landscape and townscape character, operational is taken to be Year 15 (which is 15 years after the Scheme is operational). This is considered appropriate since the effects on the local landscape and townscape would be consistent throughout the Scheme's operational phase.

Visual amenity

10.5.10 The potential effects on visual amenity would vary during the construction phase and during the operational phase. The following is a summary of the potential Scheme-wide effects at construction, Year 1 and Year 15. For detailed analysis of potential effects applying to Route Sections 1 to 6 refer to Section 10.3 of the Route Section Assessments in Volume 2ii of the ES.

10.5.11 In general, the Scheme benefits from a tight visual envelope due to an abundance of vegetation in close vicinity to the railway line and the locally undulating topography. Linear belts of trees and larger groups of shrubs limit the visibility of the railway line.

10.5.12 During construction, close and mid-range views, would be affected by increased levels of traffic moving to and from the railway line. Construction lighting would be noticeable in views particularly during the autumn and winter months. Partially constructed gantries, scaffolding along the route, cranes and moving plant and machinery would be visible to these receptors. Earthworks and vegetation clearance would also be noticeable. Users of the railway would also experience temporary adverse effects as a result of the Scheme. However, it is

anticipated that any views of works along the line would be fleeting and part of a journey and so the anticipated effects are not considered to be significant.

10.5.13 Long distance views generally offer an overview of the study area and show the context of the Scheme. However, due to the local topography and built form the potential effects on these views are limited. Partially constructed railway infrastructure may become visible but would not be prominent within expansive views.

10.5.14 At completion, close-range views would showcase structural changes to the local railway infrastructure such as the provision of OLE, changes to lighting and additional tracks. Users of the railway would experience beneficial changes, due to the introduction of enhanced railway infrastructure. Vegetation clearance would be prominent from residential receptors adjacent to the Scheme and certain viewpoint locations. Mid-range and long-distance views would be marginally affected due to the relative distance from the railway line.

10.5.15 Table 10-8 provides a summary of potential Scheme-wide effects for landscape and townscape character areas and agreed viewpoints during construction. Table 10-9 provides a summary of potential Scheme-wide effects on agreed viewpoints during the operational phase at Year 1 and Table 10-10 provides a summary of potential Scheme-wide effects on landscape and townscape character and agreed views during the operational phase at Year 15.

Table 10-8 Summary of potential Scheme-wide effects during construction

Route Section	Receptor	Sensitivity	Magnitude of change	Significance of effect	Comments
Route Section 1 – Huddersfield	**Landscape and townscape assessment**				
	LCA 5	Low	Minor	Temporary, Minor adverse	Increased traffic to and from the site, site hoarding, moving plant and construction works along the railway line would be locally noticeable within this character area. However, the effects would be highly localised and as a result would not affect the integrity of the local character.
	LCA 7	Medium	Negligible	Temporary, Negligible	There would be no noticeable effects.
	LCA 11	Medium	Negligible	Temporary, Negligible	There would be no noticeable effects.
	TCA 1	Medium	Moderate	**Temporary, Moderate adverse**	Increased traffic to and from the site as a result of the railway improvement works would locally become noticeable. Scaffolding, cranes, site hoarding and other taller vertical elements surrounding the station would affect the setting of the local character features.
	TCA 2	Low	Negligible	Temporary, Negligible	There would be no noticeable effects.
	TCA 4	Low	Negligible	Temporary, Negligible	There would be no noticeable effects.
	TCA 5	Medium	Minor	Temporary, Minor adverse	Increased traffic to and from the site as a result of the Scheme would have localised effects in the northern extent of the Scheme. These would be localised in relation to the overall size of the TCA and would not impact the overall integrity of the character area.

Route Section	Receptor	Sensitivity	Magnitude of change	Significance of effect	Comments
	Visual assessment				
	Viewpoint 1 – Users of PRoW	Medium	Minor	Temporary Minor adverse	Construction work, such as vegetation clearance south of Gledholt Bank, may become visible to the right of this view. This would have limited effect on the view and would not be easily discernible.
	Viewpoint 2 -Park Users	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 3 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 3 – Residents	High	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 4 – Motorists	Low	Minor	Temporary Minor adverse	Construction works and scaffolding in Huddersfield town centre, at Huddersfield Station and along Huddersfield Viaduct would be visible from this location.
	Viewpoint 4 – Residents	High	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 5 – Motorists	Low	Moderate	Temporary Minor adverse	Work taking place on the Huddersfield Viaduct (Span 4) Underbridge (MVL3/92(3)) and viaduct to the left of this view would be visible from this location.
	Viewpoint 5 – Pedestrians	Medium	Moderate	**Temporary Moderate adverse**	Work taking place on the Huddersfield Viaduct (Span 4) Underbridge (MVL3/92(3)) and viaduct to the left of this view would be visible from this location.
	Viewpoint 5 – Residents	High	Moderate	**Temporary Major adverse**	Work taking place on the Huddersfield Viaduct (Span 4) Underbridge (MVL3/92(3)) and viaduct to the left of this view would be visible from this location.
	Viewpoint 6 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.

Route Section	Receptor	Sensitivity	Magnitude of change	Significance of effect	Comments
	Viewpoint 6 – Residents	High	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 7 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 7 – Users of the Cemetery	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 8 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 10 – Users of PRoW	High	Minor	**Temporary Moderate adverse**	During construction, work taking place on the railway line would be visible from this location. Scaffolding and taller elements such as cranes near Huddersfield Station would be discernible in the skyline.
	Viewpoint 11 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 11 – Pedestrians	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 11 – Cyclists	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 11 – Motorists	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 12 – Pedestrians	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 12 – Motorists	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 12 – Residents	High	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 31 – Park Users	High	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 40 – Pedestrians	Medium	Major	**Temporary Major adverse effects**	Construction activity at Huddersfield Station would be prominent in this view.

Route Section	Receptor	Sensitivity	Magnitude of change	Significance of effect	Comments
Route Section 2 – Hillhouse to Fartown	**Landscape and townscape assessment**				
	LCA 4	Medium	Negligible	Negligible	There would be no noticeable effects.
	LCA 5	Low	Minor	Temporary, Minor adverse	Increased traffic to and from the Scheme, site hoarding, moving plant and construction works along the railway line would be locally noticeable within this character area. The crawler crane within the Hillhouse compound would be a prominent feature and would detract from the local landscape and townscape.
	LCA 8	Medium	Negligible	Negligible	No discernible changes to this view.
	TCA 2	Low	Negligible	Negligible	No discernible changes to this view.
	TCA 5	Medium	Negligible	Negligible	No discernible changes to this view.
	Visual assessment				
	Viewpoint 6 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 6 - Residents	High	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 7 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 7 – Users of the Cemetery	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 8 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 9 – Users of PRoW	Medium	Moderate	**Temporary Moderate adverse**	During the construction phase, vegetation clearance to the right and in the background of this view would be prominent form this location. Plant and construction site vehicles driving to and

Route Section	Receptor	Sensitivity	Magnitude of change	Significance of effect	Comments
					from the Scheme would become noticeable in the centre of this view. The railway is not visible form this location.
	Viewpoint 10 – Users of PRoW	High	Minor	**Temporary Moderate adverse**	Work taking place on the railway line would be visible from this location.
	Viewpoint 12 – Pedestrians	Low	Minor	Temporary Minor adverse	During the construction phase, vegetation clearance to the north-west of the railway line along Alder street would become visible above the roof tops in the central background of this view. This would increase visibility of the railway line during the summer months.
	Viewpoint 12 – Motorists	Low	Negligible	Negligible	Motorists would experience the unchanged view as part of a journey.
	Viewpoint 12 – Residents	High	Negligible	Negligible	Residential properties are oriented in a way which does not afford direct views of the Scheme.
	Viewpoint 13 – Users of PRoW	Medium	Major	**Temporary Major adverse**	Due to the close proximity of this viewpoint location to the Scheme, work on the railway line would be prominent in this view.
	Viewpoint 14 – Users of PRoW	Medium	Minor	Temporary Minor adverse	During the construction phase, taller vertical elements such as cranes or scaffolding, in particular around Deighton Station and Ridings Underbridge (MVL3/99) would become visible from this location.
	Viewpoint 20 – Pedestrians	Low	Moderate	Temporary Minor adverse	Works taking place on the railway line would be prominent from this location. Vegetation clearance and plant movement at the Ridings compound and at Deighton

Route Section	Receptor	Sensitivity	Magnitude of change	Significance of effect	Comments
					Station compound would be visible to pedestrians in the background of this view.
	Viewpoint 20 - Residents	High	Minor	**Temporary Moderate adverse**	Works taking place on the railway line would be noticeable from this location.
Route Section 3 – Deighton and Bradley	**Landscape and townscape assessment**				
	LCA 2	Medium	Negligible	Negligible	There would be no noticeable effects.
	LCA 4	Medium	Minor	Temporary Minor adverse	While construction work would not be taking place in this LCA, additional traffic to and from the Scheme as a result of the works would become noticeable.
	LCA 5	Low	Minor	Temporary Minor adverse	Increased traffic to and from the site, site hoarding, moving plant and construction works along the railway line would be locally noticeable within this character area.
	LCA 8	Medium	Negligible	Negligible	There would be no noticeable effects.
	TCA 5	Medium	Minor	Temporary Minor adverse	Increased traffic to and from the Scheme along Whitacre Street would be noticeable in this TCA. While some changes would occur as a result of the Scheme, these would be localised in relation to the overall size of the TCA.
	TCA 6	Low	Minor	Temporary Minor adverse	Increased traffic to and from the Scheme as a result of the works would be noticeable along Leeds Road.
	Visual assessment				
	Viewpoint 10 – Users of PRoW	High	Minor	**Temporary Moderate adverse**	During construction, moving plant and machinery and increased traffic due to construction activities driving to and from the railway line would be visible from this location.

Route Section	Receptor	Sensitivity	Magnitude of change	Significance of effect	Comments
	Viewpoint 14 – Users of PRoW	Medium	Minor	Temporary Minor adverse	Taller vertical elements such as cranes and scaffolding located at Deighton Station would protrude above the tree line to the right of this view. During the winter months this effect would be amplified.
	Viewpoint 15 – Pedestrians	Low	Major	**Temporary Moderate adverse**	The existing bridge, which is the focus of this view, would be demolished and a new bridge erected. Equipment and machinery involved in this process would have considerable effect on this viewpoint.
	Viewpoint 15 – Cyclists	Low	Major	**Temporary Moderate adverse**	
	Viewpoint 17 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 19 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 19- Residents	High	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 20 – Pedestrians	Low	Moderate	Temporary Minor adverse	Equipment such as cranes and gantries involved in the removal of Deighton station, which is located behind the tree line to the right of this view, would be noticeable.
	Viewpoint 20 – Residents	High	Minor	**Temporary Moderate adverse**	
	Viewpoint 30 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 30 – Motorists	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 33 – Users of PRoW	Medium	Moderate	**Temporary Moderate adverse**	During the construction phase, taller vertical elements such as cranes and gantries would become visible from this location. Any work affecting the vegetation along the railway line would be prominent in this view.
Route Section 4 - Colne Bridge and Battyeford	**Landscape and townscape assessment**				
	LCA 2	Medium	Negligible	Negligible	There would be no noticeable effects.
	LCA 4	Medium	Negligible	Negligible	There would be no noticeable effects.

Route Section	Receptor	Sensitivity	Magnitude of change	Significance of effect	Comments
	LCA 5	Low	Minor	Temporary Minor adverse	Increased traffic to and from the Scheme, partially constructed built form and other elements associated with the works would be noticeable within this LCA.
	LCA 8	Medium	Minor	Temporary Minor adverse	Moving plant, increased traffic and partially constructed built form would be noticeable.
	TCA 6	Low	Negligible	Negligible	There would be no noticeable effects.
	TCA 7	Medium	Minor	Temporary Minor adverse	Increased traffic along Huddersfield Road to and from the Scheme would be noticeable within this TCA.
	Visual assessment				
	Viewpoint 10 – Users of PRoW	High	Minor	**Temporary Moderate adverse**	Work taking place on the railway line would be visible from this location.
	Viewpoint 16 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 17 – Users of PRoW	Medium	Minor	Temporary Minor adverse	Work on the railway line would be visible from this viewpoint location. Taller elements such as cranes / scaffolding and moving machinery would be discernible in the background of this view
	Viewpoint 18 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 19 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 19 - Residents	High	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 30 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 30 – Motorists	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 32 – Users of PRoW	Medium	Minor	Temporary Minor adverse	Construction work would be visible on the railway line in the backdrop of this view. Taller elements, such as cranes and

Route Section	Receptor	Sensitivity	Magnitude of change	Significance of effect	Comments
					scaffolding, would protrude above the existing built form and vegetation.
	Viewpoint 32- Motorists	Low	Minor	Temporary Minor adverse	Construction work would be visible on the railway line in the backdrop of this view. Taller elements, such as cranes and scaffolding, would protrude above the existing built form and vegetation.
	Viewpoint 33 – Users of PRoW	Medium	Moderate	**Temporary Moderate adverse**	Partial visibility of construction equipment would be noticeable. Vegetation clearance to facilitate works along the railway line would be noticeable from this location.
	Viewpoint 35 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 36 – Pedestrians	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 36 – Motorists	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 36 – Residents	High	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 41 – Users of PRoW	Medium	Major	**Temporary Major adverse**	Due to the view's direct orientation towards the railway line, any changes as a result of the Scheme would be prominent from this location.
Route Section 5 – Mirfield and Lower Hopton	**Landscape and townscape assessment**				
	LCA 2	Medium	Negligible	Negligible	There would be no noticeable effects.
	LCA 3	Medium	Negligible	Negligible	There would be no noticeable effects.
	LCA 5	Low	Minor	Temporary Minor adverse	The Scheme is located in this character area. Increased traffic to and from the Scheme, site hoarding, moving plant and construction works along the railway line would be noticeable within this character area.
	LCA 8	Medium	Negligible	Negligible	There would be no noticeable effects.
	TCA 7	Medium	Negligible	Negligible	There would be no noticeable effects.

Route Section	Receptor	Sensitivity	Magnitude of change	Significance of effect	Comments
	TCA 8	Low	Negligible	Negligible	There would be no noticeable effects.
	Visual assessment				
	Viewpoint 22 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 24 – User of PRoW	Medium	Minor	Temporary Minor adverse	Increased traffic to and from the site along Hurst Lane, which is visible to the far right of this view, would be noticeable from this location. Vehicles transporting equipment, machinery and plant would be travelling along this road to reach the site.
	Viewpoint 24 – Pedestrians	Low	Minor	Temporary Minor adverse	Increased traffic to and from the site along Hurst Lane, which is visible to the far right of this view, would be noticeable from this location. Vehicles transporting equipment, machinery and plant would be travelling along this road to reach the site.
	Viewpoint 24- Users of Recreation ground	Medium	Minor	Temporary Minor adverse	Increased traffic to and from the site along Hurst Lane, which is visible to the far right of this view, would be noticeable from this location. Vehicles transporting equipment, machinery and plant would be travelling along this road to reach the site.
	Viewpoint 24 - Cyclists	Low	Minor	Temporary Minor adverse	Increased traffic to and from the site along Hurst Lane, which is visible to the far right of this view, would be noticeable from this location. Vehicles transporting equipment, machinery and plant would be travelling along this road to reach the site.
	Viewpoint 26 – Pedestrians	Low	Moderate	Temporary Minor adverse	Works at Mirfield Station and along the railway line would be prominent in this view. Moving machinery and scaffolding would be easily discernible. Increased

Route Section	Receptor	Sensitivity	Magnitude of change	Significance of effect	Comments
					traffic levels to and from the site would be noticeable on Hopton New Road.
	Viewpoint 26 – Motorists	Low	Moderate	Temporary Minor adverse	Works at Mirfield Station and along the railway line would be prominent in this view. Moving machinery and scaffolding would be easily discernible. Increased traffic levels to and from the site would be noticeable on Hopton New Road.
	Viewpoint 28 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 30 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 30 – Motorists	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 34 – Users of PRoW	Medium	Minor	Temporary Minor adverse	Construction work on the railway line would be visible from this location. The compound erected at Ravensthorpe Triangle would be visible in the centre of this view.
	Viewpoint 35 – Users of PRoW	Medium	Minor	Temporary Minor adverse	Construction work on the railway line would be visible from this location. Cranes/scaffolding and partially constructed built form would be visible at Mirfield Station to the right of this view.
	Viewpoint 36 – Pedestrians	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 36 – Motorists	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 36 – Residents	High	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 37 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 38 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.

Route Section	Receptor	Sensitivity	Magnitude of change	Significance of effect	Comments
Route Section 6 - Ravensthorpe and Westtown	**Landscape and townscape assessment**				
	LCA 2	Medium	Negligible	Negligible	There would be no noticeable effects.
	LCA 3	Medium	Minor	Temporary Minor adverse	The Route Section boundary, north-west of the railway line is located in this character area. The movement of plant equipment to and from the Scheme would be visible from the adjacent country park and offices.
	LCA 5	Low	Moderate	Temporary Minor adverse	Increased traffic to and from the site, site hoarding, moving plant and construction works along the railway line would be locally noticeable within this character area.
	LCA 8	Medium	Negligible	Negligible	There would be no noticeable effects.
	TCA 8	Low	Negligible	Negligible	There would be no noticeable effects.
	TCA 9	High	Minor	**Temporary Moderate adverse**	The northern extent of the Route Section boundary is located within this TCA. This part of the Scheme is raised above the main road on a bridge, however the part within the TCA is very small and would not be prominent within the character area. Access to the site would increase traffic along the A644.
	TCA 11	Medium	Negligible	Negligible	There would be no noticeable effects.
	Visual assessment				
	Viewpoint 21 – Pedestrians	Low	Major	**Temporary Moderate adverse**	Demolition works at Ravensthorpe Station would be noticeable from this location. The existing Gas Pipebridge (MVN2/202A) would be demolished as part of the construction works for the Scheme. As a result, this view would be altered considerably due to construction works.
	Viewpoint 21 – Motorists	Low	Major	**Temporary Moderate adverse**	Demolition works at Ravensthorpe Station would be noticeable from this location. The

Route Section	Receptor	Sensitivity	Magnitude of change	Significance of effect	Comments
					existing Gas Pipebridge (MVN2/202A) would be demolished as part of the construction works for the Scheme. As a result, this view would be altered considerably due to construction works.
	Viewpoint 22 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 23 – Users of PRoW	Medium	Major	**Temporary Major adverse**	Earthworks as part of the alterations to this location would be noticeable to the right of this view. Moving plant and machinery as well as cranes and construction workers would be visible.
	Viewpoint 25 – Users of PRoW	Medium	Moderate	**Temporary Moderate adverse**	During construction, work taking place on the Baker Viaduct Underbridge (RBA/2) would be visible from this location. Taller vertical elements such as cranes and partially constructed elements of the new railway infrastructure would be noticeable in this view. However, the aqueduct in the foreground would remain the focus of this view.
	Viewpoint 25 – Cyclists	Medium	Moderate	**Temporary Moderate adverse**	During construction, work taking place on the Baker Viaduct Underbridge (RBA/2) would be visible from this location. Taller vertical elements such as cranes and partially constructed elements of the new railway infrastructure would be noticeable in this view. However, the aqueduct in the foreground would remain the focus of this view.
	Viewpoint 27 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 28 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.

Route Section	Receptor	Sensitivity	Magnitude of change	Significance of effect	Comments
	Viewpoint 29 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 30 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 30 – Motorists	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 34 – Users of PRoW	Medium	Minor	Temporary Minor adverse	The compound erected at Ravensthorpe Triangle would be visible in the centre of this view. Moving plant and machinery would be discernible from this location.
	Viewpoint 39 – Users of PRoW	Medium	Major	**Temporary Moderate adverse**	Taller vertical elements such as cranes to construct Baker Viaduct Underbridge (RBA/2), dismantle Ravensthorpe Station and install the OLE along the railway line have potential to protrude above the tree line.
	Viewpoint 42- Users of PRoW	Medium	Major	**Temporary Major adverse**	The view is directly focussed on the New River Calder bridge. Any works taking place to facilitate access and construction work would be prominent from this location. Partially constructed elements of the new bridge would be visible.

Table 10-9 Summary of potential Scheme-wide effects during the operational phase (Year 1)

Route Section	Receptor	Sensitivity	Magnitude of change	Significance of effect	Comments
1 – Huddersfield	**Visual assessment**				
	Viewpoint 1 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 2 -Park Users	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 3 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 3 – Residents	High	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 4 – Motorists	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 4 - Residents	High	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 5 - Motorists	Low	Moderate	Permanent Minor adverse	Permanent changes to the structure of the Huddersfield Viaduct (Span 4) Underbridge (MVL3/92(3)) would become visible.
	Viewpoint 5 – Pedestrians	Medium	Moderate	**Permanent Moderate adverse**	Permanent changes to the structure of the Huddersfield Viaduct (Span 4) Underbridge (MVL3/92(3)) would become visible.
	Viewpoint 5 - Residents	High	Minor	**Permanent Moderate adverse**	While changes would be noticeable, residential properties are not directly oriented towards the railway bridge. Effects would be limited as a result.
	Viewpoint 6 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 6 – Residents	High	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 7 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.

Route Section	Receptor	Sensitivity	Magnitude of change	Significance of effect	Comments
	Viewpoint 7 – Users of the Cemetery	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 8 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 10 – Users of PRoW	High	Minor	**Permanent Moderate adverse**	Changes to the railway line would be visible in this long-distance view. OLE and associated infrastructure along the railway line would be visible. However, due to the relative distance from the Scheme these elements would not be prominent features in this view.
	Viewpoint 11 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 11- Pedestrians	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 11 – Cyclists	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 11 - Motorists	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 12 - Pedestrians	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 12 – Motorists	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 12 - Residents	High	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 31 – Park Users	High	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 40 – Pedestrians	Medium	Major	**Permanent Major adverse**	Structural changes to the parapet of the Westgate Overbridge (MVL3/90) (increased parapet height to 1.8m) would dominate the foreground, which would become the new focus of this

Route Section	Receptor	Sensitivity	Magnitude of change	Significance of effect	Comments
					view. Structural changes to the station roof would protrude above the parapet.
2 – Hillhouse and Fartown	**Visual assessment**				
	Viewpoint 6 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 6 - Residents	High	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 7 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 7 – Users of the Cemetery	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 8 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 9 – Users of PRoW	Medium	Moderate	**Permanent Moderate adverse**	During the construction phase, vegetation clearance would occur in this location to facilitate access to the railway. At Year 1, the reduced vegetation would be noticeable to the right of this view and in the background of this view. The railway itself would not be visible.
	Viewpoint 10 – Users of PRoW	High	Minor	**Permanent Moderate adverse**	OLE above the railway line would be discernible in some parts of this view. However, since this view is an expansive view of the Scheme and its context, the changes would not be prominent in this view.
	Viewpoint 12 – Pedestrians	Low	Minor	Permanent Minor adverse	New railway infrastructure such as gantries and OLE would be visible from this location. Vegetation clearance to facilitate construction of new railway infrastructure would be discernible.

Route Section	Receptor	Sensitivity	Magnitude of change	Significance of effect	Comments
	Viewpoint 12 – Motorists	Low	Negligible	Negligible	Motorists would experience this view as part of a journey. Any changes would be a glimpse of the town centre context.
	Viewpoint 12 – Residents	High	Negligible	Negligible	Residential properties are oriented in a way which does not afford direct views of the Scheme.
	Viewpoint 13 – Users of PRoW	Medium	Major	**Permanent Major adverse**	Due to the close proximity of this viewpoint location to the Scheme, changes to the railway line would be noticeable in this view. Cleared vegetation along the railway line would be prominent from this location. New railway infrastructure would be visible.
	Viewpoint 14 – Users of PRoW	Medium	Minor	Permanent Minor adverse	Gantries and OLE would protrude above the tree line and would become visible, particularly during the winter months.
	Viewpoint 20 – Pedestrians	Low	Minor	Permanent Minor adverse	During the operational phase, overhead electricity lines would become visible above the tree line. The relocated platforms at Deighton Station and the new forecourt to the south of the railway line may become visible from this location.
	Viewpoint 20 - Residents	High	Minor	**Permanent Moderate adverse**	During the operational phase, overhead electricity lines would become visible above the tree line. The relocated platforms at Deighton Station and the new forecourt to the south of the railway line may become visible from this location.

Route Section	Receptor	Sensitivity	Magnitude of change	Significance of effect	Comments
3 – Deighton and Bradley	**Visual assessment**				
	Viewpoint 10 – Users of PRoW	High	Negligible	Negligible	Limited changes to this view in the background of the view.
	Viewpoint 14 – Users of PRoW	Medium	Minor	Permanent Minor adverse	During the operational phase, new introduced built form and railway infrastructure would become visible above trees.
	Viewpoint 15 – Pedestrians	Low	Major	**Permanent Moderate adverse**	At the operational phase, changes to the railway line would be prominent in this view. The existing bridge would be demolished, and a new bridge erected as part of the Scheme. This would permanently alter the viewpoint and its context.
	Viewpoint 15 – Cyclists	Low	Major	Permanent Moderate adverse effect	
	Viewpoint 17 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 19 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 19- Residents	High	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 20 – Pedestrians	Low	Moderate	Permanent Minor adverse	During the operational phase, OLE would become visible above the tree line. Other infrastructure associated with the railway line would be located behind the dense belt of vegetation and would not affect the integrity of this view.
	Viewpoint 20 – Residents	High	Minor	**Permanent Moderate adverse**	
	Viewpoint 30 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 30 – Motorists	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 33 – Users of PRoW	Medium	Minor	Permanent Minor adverse	At completion, OLE would become visible above the tree line to the right of this view.

Route Section	Receptor	Sensitivity	Magnitude of change	Significance of effect	Comments
4 – Colne Bridge and Battyeford	**Visual assessment**				
	Viewpoint 10 – Users of PRoW	High	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 16 – Users of PRoW	Medium	Minor	Permanent Minor adverse	The FTN telecom mast at Heaton Lodge may become visible above the tree line.
	Viewpoint 17 – Users of PRoW	Medium	Minor	Permanent Minor adverse	The FTN telecom mast at Heaton Lodge may become visible above the tree line.
	Viewpoint 18 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 19 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 19 - Residents	High	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 30 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 30 – Motorists	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 32 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 32- Motorists	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 33 – Users of PRoW	Medium	Moderate	**Permanent Moderate adverse**	At Year 1, there would be discernible changes to the view. Vegetation clearance along the railway line to the left of the orange and grey “Mamas and Papas” factory building would be prominent from this location. OLE would be visible above the vegetation along the railway line. This would increase visibility of the railway line.
	Viewpoint 35 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.

Route Section	Receptor	Sensitivity	Magnitude of change	Significance of effect	Comments
	Viewpoint 36 – Pedestrians	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 36 – Motorists	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 36 – Residents	High	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 41 – Users of PRoW	Medium	Moderate	**Permanent Moderate adverse**	Gantries and newly introduced OLE would be visible from this location. While these changes would be noticeable, they would be in keeping with the existing railway infrastructure and would not be visually intrusive upon this view.
5 – Mirfield and Lower Hopton	**Visual assessment**				
	Viewpoint 22 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 24 – User of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 24 – Pedestrians	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 24- Users of Recreation ground	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 24 - Cyclists	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 26 – Pedestrians	Low	Moderate	Permanent Minor beneficial	Structural improvements to Station Road Underbridge (MVN2/193) at Mirfield Station would be discernible from this view. Vegetation removal would be noticeable. Replacement planting as part of the Scheme would provide additional vegetation. Station improvements would enhance the aesthetic appearance and provide a

Route Section	Receptor	Sensitivity	Magnitude of change	Significance of effect	Comments
					coherent road network and pedestrian walkways surrounding the station.
	Viewpoint 26 – Motorists	Low	Minor	Permanent Minor beneficial	New railway infrastructure such as OLE and works to the Station Road Underbridge (MVN2/193) at Mirfield Station would be discernible from this view. Replacement planting as part of the Scheme would provide additional vegetation.
	Viewpoint 28 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 30 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 30 – Motorists	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 34 – Users of PRoW	Medium	Minor	Permanent Minor adverse	The permanent compound erected at Ravensthorpe Triangle would be visible in the centre of this view.
	Viewpoint 35 – Users of PRoW	Medium	Minor	Permanent Minor adverse	OLE and other railway infrastructure would be noticeable from this view.
	Viewpoint 36 – Pedestrians	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 36 – Motorists	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoints 36 – Residents	High	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 37 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 38 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
6 – Ravensthorpe and Westtown	**Visual assessment**				
	Viewpoint 21 – Pedestrians	Low	Major	**Permanent Moderate adverse**	At Year 1, Gas Pipe Pipebridge (MVN2/202A) and Calder Road

Route Section	Receptor	Sensitivity	Magnitude of change	Significance of effect	Comments
					Overbridge (MVN2/202) would have been demolished and the current viewpoint location would not be in existence. As a result, the view would be significantly affected by the Scheme.
	Viewpoint 21 – Motorists	Low	Major	**Permanent Moderate adverse**	At Year 1, Gas Pipebridge (MVN2/202A) and Calder Road Overbridge (MVN2/202) would have been demolished and the current viewpoint location would not be in existence. As a result, the view would be significantly affected by the Scheme.
	Viewpoint 22 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 23 – Users of PRoW	Medium	Major	**Permanent Major adverse**	At Year 1, an increased parapet height and new railway infrastructure such as OLE would become visible from this viewpoint location. Completed earthworks and vegetation clearance would be noticeable.
	Viewpoint 25 – Users of PRoW	Medium	Minor	Permanent Minor adverse	Due to the existing infrastructure present in the view and the relative distance from the Scheme, there would be limited changes to this view.
	Viewpoint 25 – Cyclists	Medium	Minor	Permanent Minor adverse	Due to the existing infrastructure present in the view and the relative distance from the Scheme, there would be limited changes to this view.
	Viewpoint 27 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 28 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 29 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.

Route Section	Receptor	Sensitivity	Magnitude of change	Significance of effect	Comments
	Viewpoint 30 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 30 – Motorists	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 34 – Users of PRoW	Medium	Negligible	Negligible	The permanent compound erected at Ravensthorpe Triangle would be visible in the centre of this view. Due to the relative distance this would not be a prominent feature in this view.
	Viewpoint 39 – Users of PRoW	Medium	Moderate	**Permanent Moderate adverse**	Vegetation clearance would be noticeable from this location at Year 1
	Viewpoint 42- Users of PRoW	Medium	Major	**Permanent Major adverse**	At Year 1, the newly constructed bridge would be prominent in this view. The original bridge would be obscured from view due to the new construction in the foreground.

Table 10-10 Summary of potential visual Scheme-wide effects during the operational phase (Year 15)

Route Section	Receptor	Sensitivity	Magnitude of change	Significance of effect	Comments
1 – Huddersfield	**Landscape and Townscape Character Assessment**				
	LCA 5	Low	Negligible	Negligible	Effects would be highly localised and as a result would not affect the integrity of the local character.
	LCA 7	Medium	Negligible	Negligible	There would be no noticeable effects.
	LCA 11	Medium	Negligible	Negligible	There would be no noticeable effects.
	TCA 1	Low	Negligible	Negligible	Changes to the station building would be in keeping with the existing railway infrastructure and would not change the integrity of the townscape character.
	TCA 2	Low	Negligible	Negligible	There would be no noticeable effects.
	TCA 4	Low	Negligible	Negligible	There would be no noticeable effects.
	TCA 5	Medium	Negligible	Negligible	There would be no noticeable effects.
	Visual assessment				
	Viewpoint 1 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 2 -Park Users	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 3 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 3 – Residents	High	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 4 – motorists	Low	Negligible	Negligible	New railway infrastructure would be in keeping with the baseline view.
	Viewpoint 4 - Residents	High	Negligible	Negligible	No discernible changes to this view.

Route Section	Receptor	Sensitivity	Magnitude of change	Significance of effect	Comments
	Viewpoint 5 – Motorists	Low	Moderate	Permanent Minor adverse	Permanent changes to the structure of the Huddersfield Viaduct (Span 4) Underbridge (MVL3/92(3)) would become visible.
	Viewpoint 5 – Pedestrians	Medium	Moderate	**Permanent Moderate adverse**	Permanent changes to the structure of the Huddersfield Viaduct (Span 4) Underbridge (MVL3/92(3)) would become visible.
	Viewpoint 5 - Residents	High	Minor	**Permanent Moderate adverse**	While changes would be noticeable, residential properties are not directly oriented towards the railway bridge. Effects would be limited as a result.
	Viewpoint 6 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 6 – Residents	High	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 7 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 7 – Users of the Cemetery	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 8 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 10 – Users of PRoW	High	Minor	**Permanent Moderate adverse**	OLE and associated infrastructure along the railway line would be visible. However, due to the relative distance from the Scheme these elements would not be prominent features in this view.
	Viewpoint 11 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 11- Pedestrians	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 11 – Cyclists	Low	Negligible	Negligible	No discernible changes to this view.

Route Section	Receptor	Sensitivity	Magnitude of change	Significance of effect	Comments
	Viewpoint 11 - Motorists	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 12 - Pedestrians	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 12 – Motorists	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 12 - Residents	High	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 31 – Park Users	High	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 40 – Pedestrians	Medium	Major	**Permanent Major adverse**	Changes to the parapet of the Westgate Overbridge (MVL3/90) (increased parapet height to 1.8m) would dominate the foreground of this view.
2 – Hillhouse and Fartown	**Landscape and Townscape Character Assessment**				
	LCA 4	Medium	Negligible	Negligible	There would be no noticeable effects.
	LCA 5	Low	Negligible	Negligible	Effects would be localised within the LCA and would not affect the integrity of the overall character.
	LCA 8	Medium	Negligible	Negligible	There would be no noticeable effects.
	TCA 2	Low	Negligible	Negligible	There would be no noticeable effects.
	TCA 5	Medium	Negligible	Negligible	There would be no noticeable effects.
	Visual assessment				
	Viewpoint 6 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 6 - Residents	High	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 7 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 7 – Users of the Cemetery	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 8 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.

Route Section	Receptor	Sensitivity	Magnitude of change	Significance of effect	Comments
	Viewpoint 9– Users of PRoW	Medium	Moderate	**Permanent Moderate adverse**	Vegetation clearance in the foreground of this view would be noticeable. Some natural regeneration may have occurred since the clearance took place. The railway line would not be visible form this location.
	Viewpoint 10 – Users of PRoW	High	Minor	**Permanent Moderate adverse**	OLE above the railway line would be discernible in some parts of this view. However, since this view is an expansive view of the Scheme and its context, the changes would not be prominent in this view.
	Viewpoint 12 – Pedestrians	Low	Minor	Permanent Minor adverse	New railway infrastructure such as gantries and OLE would be visible from this location. Vegetation clearance to facilitate construction of new railway infrastructure would be discernible.
	Viewpoint 12 – Motorists	Low	Negligible	Negligible	Motorists would experience this view as part of a journey. Any changes would be a glimpse of the town centre context.
	Viewpoint 12 – Residents	High	Negligible	Negligible	Residential properties are oriented in a way which does not afford direct views of the Scheme.
	Viewpoint 13 – Users of PRoW	Medium	Major	**Permanent Major adverse**	Due to the close proximity of this viewpoint location to the Scheme, changes to the railway line would be noticeable in this view. Cleared vegetation along the railway line would be prominent from this location. New railway infrastructure would be visible.
	Viewpoint 14 – Users of PRoW	Medium	Minor	Permanent Minor adverse	Gantries and OLE would protrude above the tree line and would become

Route Section	Receptor	Sensitivity	Magnitude of change	Significance of effect	Comments
					visible, particularly during the winter months.
	Viewpoint 20 – Pedestrians	Low	Minor	Permanent Minor adverse	During the operational phase, OLE would become visible above the tree line. The relocated platforms at Deighton Station and the new forecourt to the south of the railway line may become visible from this location.
	Viewpoint 20 - Residents	High	Minor	**Permanent Moderate adverse**	During the operational phase, OLE would become visible above the tree line. The relocated platforms at Deighton Station and the new forecourt to the south of the railway line may become visible from this location.
3 – Deighton and Bradley	**Landscape and Townscape Character Assessment**				
	LCA 2	Medium	Negligible	Negligible	There would be no noticeable effects.
	LCA 4	Medium	Negligible	Negligible	Once the Scheme is complete, the integrity of the character area would not be disrupted.
	LCA 5	Low	Negligible	Negligible	The changes would be in keeping with the existing railway infrastructure and would not affect the integrity of the overall character.
	LCA 8	Medium	Negligible	Negligible	There would be no noticeable effects.
	TCA 5	Medium	Negligible	Negligible	While some changes would occur as a result of the Scheme, these would be localised in relation to the overall size of the TCA.
	TCA 6	Low	Negligible	Negligible	Once the Scheme is complete, the integrity of the character area would not be disrupted.

Route Section	Receptor	Sensitivity	Magnitude of change	Significance of effect	Comments
	Visual assessment				
	Viewpoint 10 – Users of PRoW	High	Negligible	Negligible	Limited changes to this view would occur in the background of the view.
	Viewpoint 14 – Users of PRoW	Medium	Minor	Permanent Minor adverse	During the operational phase, new introduced built form and railway infrastructure would become visible above trees.
	Viewpoint 15 – Pedestrians	Low	Major	**Permanent Moderate adverse**	At Year 15, changes to the railway line would remain prominent in this view. The existing bridge would be demolished, and a new bridge erected as part of the Scheme. This would permanently alter the viewpoint and its context.
	Viewpoint 15 – Cyclists	Low	Major	**Permanent Moderate adverse**	
	Viewpoint 17 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 19 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 19- Residents	High	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 20 – Pedestrians	Low	Moderate	Permanent Minor adverse	At Year 15, OLE would remain visible above the tree line. Other infrastructure associated with the railway line would be located behind the dense belt of vegetation and would not affect the integrity of this view.
	Viewpoint 20 – Residents	High	Minor	**Permanent Moderate adverse**	At Year 15, OLE would remain visible above the tree line. Other infrastructure associated with the railway line would be located behind the dense belt of vegetation and would not affect the integrity of this view.

Route Section	Receptor	Sensitivity	Magnitude of change	Significance of effect	Comments
	Viewpoint 30 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 30 – Motorists	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 33 – Users of PRoW	Medium	Minor	Permanent Minor adverse	At completion, OLE would become visible above the tree line to the right of this view.
4 – Colne Bridge and Battyeford	**Landscape and Townscape Character Assessment**				
	LCA 2	Medium	Negligible	Negligible	There would be no noticeable effects.
	LCA 4	Medium	Negligible	Negligible	There would be no noticeable effects.
	LCA 5	Low	Negligible	Negligible	During the operational phase, the integrity of the character within LCA 5 would not be affected. The newly introduced built form and railway infrastructure would be in keeping with the existing character.
	LCA 8	Medium	Negligible	Negligible	There would be no noticeable effects.
	TCA 6	Low	Negligible	Negligible	There would be no noticeable effects.
	TCA 7	Medium	Negligible	Negligible	There would be no noticeable effects.
	Visual assessment				
	Viewpoint 10 – Users of PRoW	High	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 16 – Users of PRoW	Medium	Minor	Permanent Minor adverse	The FTN telecom mast at Heaton Lodge may become visible above the tree line.
	Viewpoint 17 – Users of PRoW	Medium	Minor	Permanent Minor adverse	The FTN telecom mast at Heaton Lodge may become visible above the tree line.
	Viewpoint 18 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 19 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 19 - Residents	High	Negligible	Negligible	No discernible changes to this view.

Route Section	Receptor	Sensitivity	Magnitude of change	Significance of effect	Comments
	Viewpoint 30 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 30 – Motorists	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 32 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 32- Motorists	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 33 – Users of PRoW	Medium	Moderate	**Permanent Moderate adverse**	At Year 15, there would be discernible changes to the view. Regeneration of previously cleared vegetation along the railway line to the left of the orange and grey "Mamas and Papas" factory building would be noticeable from this location.
	Viewpoint 35 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 36 – Pedestrians	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 36 – Motorists	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 36 – Residents	High	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 41 – Users of PRoW	Medium	Moderate	**Permanent Moderate adverse**	Gantries and OLE would be visible from this location. While these changes would be noticeable, they would be in keeping with the existing railway infrastructure and would not be visually intrusive upon this view.
5 – Mirfield and Lower Hopton	**Landscape and Townscape Character Assessment**				
	LCA 2	Medium	Negligible	Negligible	There would be no noticeable effects.
	LCA 3	Medium	Negligible	Negligible	There would be no noticeable effects.

Route Section	Receptor	Sensitivity	Magnitude of change	Significance of effect	Comments
	LCA 5	Low	Minor	Permanent Minor beneficial	Localised effects due to improvements to Mirfield Station.
	LCA 8	Medium	Negligible	Negligible	There would be no noticeable effects.
	TCA 7	Medium	Negligible	Negligible	There would be no noticeable effects.
	TCA 8	Low	Negligible	Negligible	There would be no noticeable effects.
	Visual assessment				
	Viewpoint 22 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 24 – User of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 24 – Pedestrians	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 24- Users of Recreation ground	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 24 - Cyclists	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 26 – Pedestrians	Low	Minor	Permanent Minor beneficial	Structural improvements to the Station Road Underbridge (MVN2/193) at Mirfield Station would be discernible from this view. Regenerated vegetation would be noticeable. Planting as a part of the Scheme would have matured. The works to the railway station would enhance the aesthetic appearance of the station and provide a coherent road network and pedestrian walkways surrounding the station.
	Viewpoint 26 – Motorists	Low	Minor	Permanent Minor beneficial	New railway infrastructure such as OLE and structural improvements to the Station Road Underbridge (MVN2/193) at Mirfield Station would

Route Section	Receptor	Sensitivity	Magnitude of change	Significance of effect	Comments
					be discernible from this view. Regenerated vegetation would be noticeable.
	Viewpoint 28 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 30 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 30 – Motorists	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 34 – Users of PRoW	Medium	Negligible	Negligible	Railway infrastructure would be visible in the background of this view. This would not be a focal point of the view.
	Viewpoint 35 – Users of PRoW	Medium	Minor	Permanent Minor adverse	OLE would be noticeable above the built form and vegetation. Vegetation clearance along the River Calder would be noticeable
	Viewpoint 36 – Pedestrians	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 36 – Motorists	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 36 – Residents	High	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 37 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 38 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
6 – Ravensthorpe and Westtown	**Landscape and Townscape Character Assessment**				
	LCA 2	Medium	Negligible	Negligible	There would be no noticeable effects.
	LCA 3	Medium	Negligible	Negligible	Effects would be localised within the LCA and would not affect the integrity of the overall character.

Route Section	Receptor	Sensitivity	Magnitude of change	Significance of effect	Comments
	LCA 5	Low	Negligible	Negligible	Effects would be localised within the LCA and would not affect the integrity of the overall character.
	LCA 8	Low	Negligible	Negligible	Effects would be localised within the LCA and would not affect the integrity of the overall character.
	TCA 8	Low	Negligible	Negligible	There would be no noticeable effects.
	TCA 9	High	Negligible	Negligible	Effects would be localised within the LCA and would not affect the integrity of the overall character.
	TCA 11	Medium	Negligible	Negligible	There would be no noticeable effects.
	Visual assessment				
	Viewpoint 21 – Pedestrians	Low	Major	**Permanent Moderate adverse**	A Year 15, permanent changes to the railway layout and the relocation of the railway bridge would remain prominent in this view.
	Viewpoint 21 – Motorists	Low	Major	**Permanent Moderate adverse**	A Year 15, permanent changes to the railway layout and the relocation of the railway bridge would remain prominent in this view.
	Viewpoint 22 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 23 – Users of PRoW	Medium	Major	**Permanent Major adverse**	At Year 15, an increased parapet height and new railway infrastructure such as OLE would become visible from this viewpoint location. Completed earthworks and vegetation clearance would be noticeable. Some of the vegetation may have regenerated naturally and softened the effects.

Route Section	Receptor	Sensitivity	Magnitude of change	Significance of effect	Comments
	Viewpoint 25 – Users of PRoW	Medium	Minor	Permanent Minor adverse	Due to the existing infrastructure present in the view and the relative distance from the Scheme, there would be limited changes to this view.
	Viewpoint 25 – Cyclists	Medium	Minor	Permanent Minor adverse	Due to the existing infrastructure present in the view and the relative distance from the Scheme, there would be limited changes to this view.
	Viewpoint 27 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 28 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 29 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 30 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 30 – Motorists	Low	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 34 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 39 – Users of PRoW	Medium	Negligible	Negligible	No discernible changes to this view.
	Viewpoint 42- Users of PRoW	Medium	Major	**Permanent Major adverse**	At Year 15, the newly constructed bridge would be prominent in this view. The original bridge would be obscured from view due to the new construction in the foreground.

10.5.16 During construction, residential receptors within the wider study area are anticipated to experience a change in view. These temporary changes would have most noticeable effects on receptors with direct views of construction hubs and satellite compounds. The location of the compounds are illustrated in Figure 2-4.

10.5.17 Residential receptors with direct views of construction hubs would experience views of construction activities, material and plant storage, office and welfare facilities and staff parking, which would all introduce prominent new elements into their existing view. For the purposes of assessment, it has been assumed that the construction hubs will remain in place throughout the duration of the Scheme i.e. for a maximum of four years. However, the exact length of time will vary according to the staging of works in each Route Section. Further details of the four strategic construction hubs are provided in Chapter 2 (Scheme description) of the Scheme-wide Assessment (Table 2-6). Depending on the baseline view from these receptors and the type of activities visible, the magnitude of change is anticipated to range from minor to major adverse. The resulting effect is anticipated to range from **temporary Moderate adverse** to **temporary Major adverse**, which would be **significant** in EIA terms, albeit temporary in nature.

10.5.18 Residential receptors with direct views of satellite compounds would also experience views of construction activities. Satellite compounds will be used intermittently over the 4-year period rather than continuously. Further details of the satellite compounds are provided in Chapter 2 (Scheme description) of the Scheme-wide Assessment in Table 2-7. These would introduce prominent new elements into the existing view. These effects would be predominantly localised and typically reduce with distance from the Scheme. The magnitude of change at these receptors is anticipated to range between minor to major adverse depending on the nature of the works occurring at the compound. The resulting effect is anticipated to range from **temporary Moderate adverse** to **temporary Major adverse**, which would be **significant** in EIA terms, albeit temporary in nature.

10.5.19 Receptors with direct views of the railway would experience noticeable effects depending on their orientation towards the railway and their relative distance from the construction activity taking place. The construction of new railway infrastructure (e.g. OLE and signalling) or alteration of existing infrastructure would be a notable change from the existing view. The magnitude of change at receptors experiencing these views are anticipated to range between minor to major adverse. The resulting effect is anticipated to range from **temporary Moderate adverse** to **temporary Major adverse**, which would be **significant** in EIA terms, albeit temporary in nature.

10.5.20 Residential receptors with distant views of the Scheme would experience limited changes as a result of the works. These changes are anticipated to result in a minor magnitude of change resulting in **temporary Moderate adverse** effects, which would be **significant**.

10.5.21 Overall, the potential effects during the construction phase on residential receptors (high sensitivity) within the wider study area would range from **temporary Moderate adverse** to **temporary Major adverse,** which would be **significant** in EIA terms.

10.5.22 Vegetation clearance undertaken to facilitate construction work may increase visibility of the railway line during the operational phase as well as the construction phase.

10.5.23 During the operational phase, new railway infrastructure such as noise barriers, lineside palisade fencing and OLE would become noticeable in some locations. Particularly where OLE is located adjacent to residential properties and where it is situated on elevated locations such as embankments, viaducts and bridges, it would be visually prominent. Nevertheless, these effects are considered to be localised and the changes would be in keeping with the existing railway infrastructure.

10.5.24 Table 10-11 provides a summary of potential effects of the construction and in particular where OLE installation is expected to have greatest effect on residential receptors during the construction phase and Table 10-12 provides a summary of potential effects of OLE on residential receptors during the operational phases at Year 1 and Year 15.

Table 10-11 Summary of potential effects of the construction of OLE on residential receptors during the construction phase

Representative Residential receptors	Sensitivity	Magnitude of change	Significance of effect	Commentary
Route Section 1				
Mark Street and Cross Church Street	High	Moderate	**Major adverse**	Properties would experience a change in view due to the loss of screening vegetation due to the use of the land adjacent to the railway as a compound during construction (Cross Church Street compound). The construction of new railway infrastructure (e.g. OLE) or alteration of existing infrastructure would be a notable change from the existing view. However, these works would be localised.
Route Section 2				
Hammond Street / Abbey Place	High	Major	**Major adverse**	Vegetation removal during construction would open up views of the railway. The Construction hub at Huddersfield Station would be visible.
Topaz Close	High	Major	**Major adverse**	Vegetation removal during construction would open up views of the railway. The Construction hub at Huddersfield Station would be visible
Route Section 3				
Whitacre Close	High	Moderate	**Major adverse**	Screening vegetation south of the houses would be retained during construction. The construction of new railway infrastructure such as OLE and changes to Deighton Station would be a notable change.
Properties on the west of Whitacre Street (north of MVL3/101)	High	Moderate	**Moderate adverse**	The loss of scattered trees between the railway and receptors would be noticeable, however this would not significantly alter the view. The construction of new railway infrastructure such as OLE and changes to Deighton Station would be a notable change.

Representative Residential receptors	Sensitivity	Magnitude of change	Significance of effect	Commentary
Whitacre Street (south of MVL3/101)	High	Moderate	**Major adverse**	Construction of the Scheme would result in a loss of vegetation located between properties and the railway. The construction of new railway infrastructure such as OLE would be a notable change.
Glenfield Avenue (north facing properties which back on to the Scheme)	High	Minor	**Moderate adverse**	Construction of the Scheme would result in a loss of vegetation located between properties and the railway. The construction of new railway infrastructure such as OLE would be a noticeable change. However, since the railway is located in a cutting in this area, effects are anticipated to be limited.
Leeds Road No. 682 to 684	High	Major	**Major adverse**	The construction of new railway infrastructure such as OLE and changes to A62 Leeds Road Overbridge (MVL3/102) would be prominent. Construction traffic along Leeds Road would be noticeable.
Route Section 4				
Waterside Walk and Wood Lane	High	Major	**Major adverse**	The construction of new railway infrastructure such as OLE would be noticeable. Activity within the construction compound at Paul Lane compound (near to Helm Lane) would be noticeable
Helm Lane	High	Moderate	**Major adverse**	The railway line is largely screened by existing vegetation which would be retained. The construction of new railway infrastructure such as OLE and a noise barrier would be noticeable
Route Section 5				
Lower Hopton and Calder View	High	Minor	**Moderate adverse**	The railway is screened by a timber fence along the railway on Calder View. This would be retained. Construction activity would be noticeable from upper storey windows. Increased levels of traffic to and from the railway would be noticeable.
Properties west of River Calder (including Calder Road, Chadwick Lane, Calder View and Woodend Road)	High	Moderate	**Major adverse**	The construction of new railway infrastructure such as OLE would be noticeable. Construction activity on the Mirfield Viaduct (MVN2/192) would be noticeable.

Representative Residential receptors	Sensitivity	Magnitude of change	Significance of effect	Commentary
Back Station Road (north facing properties), Mirfield	High	Moderate	**Major adverse**	The view of the railway is screened by a brick wall. The construction of new railway infrastructure such as OLE and construction activity at Mirfield Station would be noticeable.
South Brook Gardens, (west facing properties)	High	Minor	**Moderate adverse**	The removal and permanent loss of vegetation adjacent to Station Road Underbridge (MVN2/193) would be noticeable. The construction of new railway infrastructure such as OLE and construction activity at Mirfield Station would be noticeable. However, due to the orientation of the buildings, effects are anticipated to be limited to upper storey windows.
Route Section 6				
Mavis Street, Dewsbury	High	Minor	**Moderate adverse**	Vegetation loss during construction may introduce more open views of the railway. The construction of new railway infrastructure such as OLE would be noticeable.

Table 10-12 Potential operational effects of OLE on representative residential receptors during the operational phase

Representative Residential receptors	Sensitivity	Magnitude of change	Significance of effect		Commentary
			Year 1	Year 15	
Route Section 1					
Mark Street and Cross Church Street	High	Moderate	**Major adverse**	**Major adverse**	Properties on Mark Street and Cross Church Street would retain their already open views of the railway. Properties would experience a change in view due to the loss of screening vegetation following the use of the land adjacent to railway as a compound during construction (Cross Church Street compound). OLE is anticipated to be visible along this section of the railway for these receptors
Route Section 2					
Hammond Street / Abbey Place	High	Moderate	**Major adverse**	**Major adverse**	Vegetation removal during construction would open up views of railway and new railway infrastructure such as OLE is anticipated to be visible.
Topaz Close	High	Minor	**Moderate adverse**	**Moderate adverse**	Vegetation removal during construction would open up views of the railway and new OLE structures from south facing raised windows.
Route Section 3					
Whitacre Close	High	Minor	**Moderate adverse**	**Moderate adverse**	Screening vegetation south of the houses would be retained during construction. Therefore, the introduction of OLE on the railway would result in a minimal change to the existing baseline.

Representative	Sensitivity	Magnitude of change	Significance of effect		Commentary
Properties on the west of Whitacre Street (north of MVL3/101)	High	Minor	**Moderate adverse**	**Moderate adverse**	The loss of scattered trees between the railway and receptors would be noticeable, however this would not significantly alter the view. New railway infrastructure is anticipated to be visible.
Whitacre Street (south of MVL3/101)	High	Moderate	**Major adverse**	**Major adverse**	Construction of the Scheme would result in a loss of vegetation located between properties and the railway. The introduction of OLE and the new station platforms and infrastructure (e.g. footbridge) is anticipated to increase visibility of the railway.
Glenfield Avenue (north facing properties which back on to the Scheme)	High	Minor	**Moderate adverse**	**Moderate adverse**	Removal of vegetation would alter views from the properties. However, given the railway is located within a cutting in this location, it is not anticipated that OLE would be noticeable from these properties.
Leeds Road No. 682 to 684	High	Minor	**Moderate adverse**	**Moderate adverse**	OLE is anticipated to be visible from these locations.
Route Section 4					
Waterside Walk and Wood Lane	High	Moderate	**Major adverse**	**Major adverse**	While the existing railway is in close proximity, it is not an obvious feature in the baseline view. During operation of the Scheme, OLE is anticipated to be visible on top of the embankment.
Helm Lane	High	Minor	**Moderate adverse**	**Moderate adverse**	The railway line is largely screened by existing vegetation which would be retained. A noise barrier (2m high) and OLE may be visible through the intervening vegetation, however these

Representative	Sensitivity	Magnitude of change	Significance of effect		Commentary
					features would not be a prominent alteration.
Route Section 5					
Lower Hopton and Calder view	High	Minor	**Moderate adverse**	**Moderate adverse**	The railway is screened by a timber fence along the railway on Calder View. This would be retained. OLE may be evident from upper storey south facing windows, however it would be a minimal and localised change in the foreground of the existing baseline view of the railway.
Properties west of River Calder (including Calder Road, Chadwick Lane, Calder View and Woodend Road)	High	Minor	**Moderate adverse**	**Moderate adverse**	OLE would be a visible raised feature on the existing railway including the Mirfield Viaduct (MVN2/192).
Back Station Road (north facing properties), Mirfield	High	Minor	**Moderate adverse**	**Moderate adverse**	The view of the railway is screened by a brick wall. OLE may be visible on the railway line from upper storey windows
South Brook Gardens, (west facing properties)	High	Minor	**Moderate adverse**	**Moderate adverse**	The removal and permanent loss of vegetation adjacent to Station Road Underbridge (MVN2/193) may afford indirect views of OLE.
Route Section 6					
Mavis Street, Dewsbury	High	Minor	**Moderate adverse**	**Moderate adverse**	Vegetation loss during construction may introduce more open views of the railway and OLE infrastructure. However, given that the houses are situated higher than the railway, OLE is not expected to be a prominent feature in the view.

10.6 Mitigation measures

Mitigation embedded in design

10.6.1 Embedded mitigation measures are acknowledged as an intrinsic part of the design process. The following mitigation measures are regarded as inherent to the Scheme design and were considered during the assessment of potential impacts included in Section 10.5:

- The design elements at Huddersfield Station were developed with input from historic environment specialists and informed by the Huddersfield Station Statement of Significance[9] (included as a supporting document to the Listed Building Consent application for Huddersfield Station (NR17), alongside the TWAO submission). The design also seeks to ensure the local townscape character is not disrupted;
- The design elements for OLE seek to ensure that the visual impacts are minimised, through consideration of the design of gantries and overhead wire connectors and minimisation of the size and scale of equipment where possible. Initial siting design has also considered sensitive receptors include residents and where practicably possible the gantries will be located on property boundaries rather than directly opposite gardens or windows;
- Erection of temporary site hoarding around construction areas to clearly delineate working areas and reduce disruption of nearby areas; and
- Respect, maintain and enhance the local landscape/townscape character and distinctiveness. Where appropriate, retain existing vegetation to limit disruption of the local landscape character.

Mitigation and compensation measures

10.6.2 The successful mitigation of adverse landscape/townscape and visual effects is achievable through avoidance, reduction or compensation for the effects. Due to the nature of the construction activities associated with the Scheme, it is inevitable that some adverse effects would occur to the landscape character and visual amenity during the site preparation and construction phases. Proposed additional mitigation provides measures to soften the effects of the Scheme during the construction and operational phases. These are considered in an assessment of residual effects arising from the Scheme. The additional compensation measures are summarised below.

10.6.3 The detailed design process will seek to ensure that the visual impacts are minimised, through consideration of the design of gantries and overhead wire connectors and minimisation of the size and scale of equipment where possible. This refined design will also mean that fewer portals are needed to hold the overhead wires with spacing of 55-65 metres likely to be achieved. The detailed design will also consider sensitive receptors including residents and where practicably possible the gantries will be located on property boundaries rather than directly opposite gardens or windows.

10.6.4 During the construction phase, the following mitigation and compensation measures will be implemented and are detailed in Part A of the CoCP (provided in Appendix 2-1):

- Careful siting of construction machinery, materials and welfare facilities to avoid unnecessary disruption or visual intrusion, particularly with regards to the privacy of adjacent areas.

10.6.5 During the operational phase, at Year 1 and Year 15, the following mitigation and

[9] Atkins, 2018. TransPennine Route Upgrade: Huddersfield Station Statement of Significance.

compensation measures have been identified:

- Reinstatement to existing baseline condition;
- Replacement planting at locations identified in Figure 2-3;
- Where earthworks are required, provision of replacement planting where possible; and
- Provision of additional planting in the form of hedgerows, shrub groups and trees to reduce visual intrusion of new railway infrastructure upon local landscape/townscape character and visual amenity.

10.6.6 An outline environmental mitigation plan which includes details of proposed planting (compensatory/mitigation) is provided at Figure 2-3. A detailed landscape / ecological scheme will be prepared as part of the Landscape and Ecological Management Plan (LEMP) to be submitted to and approved by the Local Planning Authority pursuant to a condition attached to the deemed planning permission[10], this will include details on the landscape proposals and management of any replacement planting and includes the measures identified in paragraph 10.6.4.

10.6.7 The proposed additional mitigation and compensation measures during the construction phase are summarised and analysed in Table 10-13 and during the operational phases are summarised and analysed in Table 10-14.

[10] On making an order under the Transport and Works Act 1992, the Secretary of State may direct that planning permission shall be deemed to be granted, subject to such conditions (if any) as may be specified in the direction.

Table 10-13 Summary of mitigation and compensation measures during construction

Proposed mitigation and compensation measures	Comment
Code of Construction Practice (CoCP)	The provision of a CoCP ensures best practice during the construction phase. Landscape requirements are provided in Section 6 of Part A of the CoCP, included in Appendix 2-1. These requirements include considerate boundary treatment to compounds and construction work, careful siting of construction machinery, site hoarding, materials and welfare facilities. This would avoid unnecessary disruption or visual intrusion. This would also affect construction lighting and ensure that its intensity and timing is appropriate and limits disruption.

Table 10-14 Summary of mitigation and compensation measures during operation at Year 1 and Year 15

Proposed mitigation and compensation measures	Comment
Reinstatement to existing baseline condition	Where reinstatement to the existing baseline is achievable, vegetation would be replanted. This would ensure that areas of temporary loss would affect the construction phase and have limited visual effects on the Year 1 Assessment. Reinstated vegetation would be mature at Year 15.
Replacement planting	Where vegetation is replaced, vegetation would potentially be replanted in a different form to the existing baseline. This would alter the appearance of areas of vegetation affected. Reinstated vegetation would be mature at Year 15. Perceptually, this may increase visibility of the railway line and railway corridor depending on where this mitigation is located.
Where earthworks are required, provision of appropriate replacement planting where appropriate	Earthworks would result in the clearance of existing vegetation. Where achievable, the replanting of these areas would limit adverse effects on visual amenity and the setting of the Scheme. Where replacement planting is provided, this would limit visual effects during the operational phase and vegetation would be mature at Year 15.
Provision of additional planting	Where appropriate, this would provide additional vegetation. This would enhance the setting of the Scheme and soften visual effects. Any additional planting such as hedgerows, trees or shrubs would limit the visual intrusiveness of the Scheme.

10.6.8 An outline mitigation plan is provided at Figure 2-2 in Volume 4 of this ES. A detailed landscape / ecological scheme will be prepared as part of the Landscape and Ecological Management Plan (LEMP) to be submitted and approved by the Local Planning Authority as a condition attached to the deemed planning permission and this will include details on the landscape proposals and management of any replacement planting as detailed in Table 10 - 13.

10.6.9 The above mitigation measures consider the potential Scheme-wide mitigation. For detailed mitigation of relevance to Route Sections 1 to 6 refer to Section 10.4 of the Route Section Assessments in Volume 2ii of the ES.

10.7 Residual effects

10.7.1 Residual effects on landscape and visual impacts are those effects remaining, as a result of the Scheme, after mitigation has been taken into account. Additional mitigation measures during the construction phase would ensure site hoarding and fencing avoids unnecessary disruption or visual intrusion. Replacement and mitigating planting would be provided as part of the applied mitigation measures during the operational phase. This would have increasing mitigating effects due to the maturation of vegetation over time.

10.7.2 The likely significant residual effects to landscape character and visual amenity at agreed viewpoints both during construction of the Scheme and during operation at Year 1 and Year 15 after completion are presented in Table 10-15. Only landscape resources and visual receptors which are expected to experience ‘significant’ effects during construction or during operation are included in Table 10-15.

Table 10-15 Summary of residual effects

Landscape resource or visual receptor	Significant residual effect			
	During construction phase	At operational phase Year 1	At operational phase Year 15	Commentary
Route Section 1				
TCA 1	**Temporary Moderate adverse effects**	Not significant	Not significant	While the CoCP guarantees best practice and behaviour during construction work, the effects during the construction phase would remain noticeable and would have a temporary effect on the townscape character. During the operational phase of the Scheme, the effects would no longer be significant.
Viewpoint 5 Pedestrians	**Temporary Moderate adverse effect**	**Permanent Moderate adverse effects**	**Permanent Moderate adverse effects**	Construction work would remain visually intrusive despite the identified embedded mitigation measures. Mitigation planting is not practical at this location and therefore, during the operational phase of the Scheme, permanent changes to the railway line including OLE would be visible.
Viewpoint 5 Residents	**Temporary Major adverse effects**	**Permanent Moderate adverse effects**	**Permanent Moderate adverse effects**	Construction work would remain visually intrusive despite the identified embedded mitigation measures. During the operational phase of the Scheme, changes to the view from residential properties would remain noticeable.
Viewpoint 10 Users of PRoW	**Temporary Major adverse effects**	**Permanent Moderate adverse effects**	**Permanent Moderate adverse effects**	Construction work would remain visually intrusive despite the identified embedded mitigation measures. During the operational phase of the Scheme, gantries, OLE and other new railway infrastructure would remain noticeable in the backdrop of this view.
Viewpoint 40 Pedestrians	**Temporary Major adverse effects**	**Permanent Major adverse effects**	**Permanent Major adverse effects**	Construction work would remain visually intrusive despite the identified embedded mitigation measures. At completion, the alterations to the parapet would remain a prominent, permanent change.

Landscape resource or visual receptor	Significant residual effect			
	During construction phase	At operational phase Year 1	At operational phase Year 15	Commentary
Route Section 2				
Viewpoint 9 Users of PRoW	**Temporary Moderate adverse effects**	**Temporary Moderate adverse effects**	Not significant	Construction work would remain visually intrusive despite the identified embedded mitigation measures. During the operational phase of the Scheme, reinstatement of cleared vegetation would mitigate the lost vegetation at Year 15 once the vegetation has matured.
Viewpoint 10 Users of PRoW	**Temporary Moderate adverse effects**	**Permanent Moderate adverse effects**	**Permanent Moderate adverse effects**	Construction work would remain visually intrusive despite the identified embedded mitigation measures. During the operational phase, the new railway infrastructure may be visible within the townscape.
Viewpoint 13 Users of PRoW	**Temporary Major adverse effects**	**Permanent Major adverse effects**	**Permanent Moderate adverse effects**	Construction work would remain visually intrusive despite the identified embedded mitigation measures. During the operational phase, once vegetation has matured, reinstated vegetation would partially screen the railway from view.
Viewpoint 20 Residents	**Temporary Moderate adverse effects**	**Permanent Moderate adverse effects**	**Permanent Moderate adverse effects**	Construction work would remain visually intrusive despite the identified embedded mitigation measures. During the operational phase, once vegetation has matured, reinstated vegetation would partially screen the railway from view. However, residential properties are anticipated to still have views of new railway infrastructure such as OLE.
Route Section 3				
Viewpoint 10 Users of PRoW	**Temporary Moderate adverse effects**	Not significant	Not significant	Construction work would remain visually intrusive despite the identified embedded mitigation measures. During the operational phase of the Scheme, the effects would no longer be significant.

Landscape resource or visual receptor	Significant residual effect			
	During construction phase	At operational phase Year 1	At operational phase Year 15	Commentary
Viewpoint 15 Users of PRoW	**Temporary Moderate adverse effects**	**Permanent Moderate adverse effects**	Not significant	Construction work would remain visually intrusive despite the identified embedded mitigation measures. While the removed bridge would remain prominent during the operational phase of the Scheme, the reinstated vegetation along the railway line visible in this view would integrate the railway into the local context and would limit the visual effects at maturity.
Viewpoint 15 Cyclists	**Temporary Moderate adverse effects**	**Permanent Moderate adverse effects**	Not significant	Construction work would remain visually intrusive despite the identified embedded mitigation measures. While the removed bridge would remain prominent at completion, the reinstated vegetation along the railway line visible in this view would integrate the railway into the local context and would limit the visual effects at maturity.
Viewpoint 20 Pedestrians	**Temporary Moderate adverse effects**	Not significant	Not significant	Construction work would remain visually intrusive despite the identified embedded mitigation measures. During the operational phase of the Scheme, the effects would no longer be significant.
Viewpoint 20 Residents	**Temporary Moderate adverse effects**	**Permanent Moderate adverse effects**	**Permanent Moderate adverse effects**	Construction work would remain visually intrusive despite the identified embedded mitigation measures. During the operational phase, once vegetation has matured, reinstated vegetation would partially screen the railway from view. However, residential properties are still anticipated to have views of new railway infrastructure such as OLE and Deighton Station.
Viewpoint 33 Users of PRoW	**Temporary Moderate adverse effects**	Not significant	Not significant	Construction work would remain visually intrusive despite the identified embedded mitigation measures. During the operational phase of the Scheme, the effects would no longer be significant.

Landscape resource or visual receptor	Significant residual effect			
	During construction phase	At operational phase Year 1	At operational phase Year 15	Commentary
Route Section 4				
Viewpoint 10 Users of PRoW	**Temporary Moderate adverse effects**	Not significant	Not significant	Construction work would remain visually intrusive despite the identified embedded mitigation measures. During the operational phase of the Scheme, the effects would no longer be significant.
Viewpoint 33 Users of PRoW	**Temporary Moderate adverse effects**	**Permanent Moderate adverse effects**	Not significant	Construction work would remain visually intrusive despite the identified embedded mitigation measures. Vegetation clearance would be prominent at Year 1 but due to mitigation planting, effects would be reduced to not significant at Year 15.
Viewpoint 41 Users of PRoW	**Temporary Moderate adverse effects**	**Permanent Moderate adverse effects**	Not significant	Construction work would remain visually intrusive despite the identified embedded mitigation measures. During the operational phase of the Scheme, vegetation clearance would be prominent at Year 1 but due to mitigation planting, effects would be reduced to not significant at Year 15.
Route Section 5 – no significant effects to views				
Route Section 6				
Viewpoint 21 Motorists	**Temporary Moderate adverse effects**	**Permanent Moderate adverse effects**	**Permanent Moderate adverse effects**	Construction work would remain visually intrusive despite the identified embedded mitigation measures. At completion the permanent changes to the bridge would remain prominent.
Viewpoint 21 Pedestrians	**Temporary Moderate adverse effects**	**Permanent Moderate adverse effects**	**Permanent Moderate adverse effects**	Construction work would remain visually intrusive despite the identified embedded mitigation measures. At completion the permanent changes to the bridge would remain prominent.
Viewpoint 23 Users of PRoW	**Temporary Major adverse effects**	**Permanent Major adverse effects**	**Permanent Moderate adverse effects**	Construction work would remain visually intrusive despite the identified embedded mitigation measures. The embankment with reduced vegetation cover would be noticeable and would increase visibility of the railway line. At completion of the Scheme, the replanted vegetation would soften the effects of the

Landscape resource or visual receptor	Significant residual effect			
	During construction phase	At operational phase Year 1	At operational phase Year 15	Commentary
				earthworks. This would reduce effects at Year 15, however it would still be a noticeable difference from the baseline view.
Viewpoint 25 Users of PRoW	**Temporary Moderate adverse effects**	Not significant	Not significant	Construction work would remain visually intrusive despite the identified embedded mitigation measures. During the operational phase of the Scheme, the effects would no longer be significant.
Viewpoint 25 Cyclists	**Temporary Moderate adverse effects**	Not significant	Not significant	Construction work would remain visually intrusive despite the identified embedded mitigation measures. During the operational phase of the Scheme, the effects would no longer be significant.
Viewpoint 39 Users of PRoW	**Temporary Moderate adverse effects**	Not significant	Not significant	Construction work would remain visually intrusive despite the identified embedded mitigation measures. At completion, reinstatement of cleared vegetation to its baseline condition would effectively mitigate visual effects.
Viewpoint 42 Users of PRoW	**Temporary Major adverse effects**	**Permanent Major adverse effects**	**Permanent Moderate adverse effects**	Construction work would remain visually intrusive despite the identified embedded mitigation measures. At completion, the new Ravensthorpe Viaduct and associated vegetation clearance would remain prominent.

10.7.3 In line with the measures identified within the CoCP, the construction phase will seek to minimise visual intrusion at residential receptors as much as practically possible. However, given the scale of the Scheme, residual adverse effects on residential receptors during construction phase are unavoidable.

10.7.4 It is therefore anticipated that although screening (hoarding and planting) will be implemented during the construction phase the significance of effect will remain the same. The overall residual effects for residential receptors (high sensitivity) within the wider study area during the construction phase would range from temporary **Moderate adverse** to temporary **Major adverse**, which would be remain significant in EIA terms.

10.7.5 Residual significant effects anticipated at identified residential properties (which are not associated with a viewpoint) are assessed in Table 10-16.

Table 10-16 Significant residual effects on residential receptors

Representative Residential receptors	Significant residual effect			
	During construction phase	At operational phase Year 1	At operational phase Year 15	Commentary
Route Section 1				
Mark Street and Cross Church Street	**Major adverse**	**Major adverse**	**Moderate adverse**	Construction work would remain visually intrusive despite the identified embedded mitigation measures. Screening vegetation removed during construction would be reinstated. Alongside this, additional planting of semi-natural broadleaved woodland will provide screening for all properties facing the railway on Mark Street. At Year 1 the planting would not be matured and would not yet provide mitigation to screen the view of the railway and OLE infrastructure. By Year 15 the planting would be fully established and screen the view of the railway and new OLE infrastructure.
Route Section 2				
Hammond Street / Abbey Place	**Major adverse**	**Major adverse**	**Moderate adverse**	Construction work would remain visually intrusive despite the identified embedded mitigation measures. Vegetation removed during construction would be reinstated as scattered trees and scrub. Once established the effect would be reduced yet remain significant.
Topaz Close	**Major adverse**	**Moderate adverse**	Not significant	Construction work would remain visually intrusive despite the identified embedded mitigation measures.

Representative	Significant residual effect			
				During construction as much existing planting would be retained as possible in this location. Additional shrub planting would reintroduce some screening of the railway once established which would screen views of the railway and the new OLE.
Route Section 3				
Whitacre Close	**Major adverse**	**Moderate adverse**	Not significant	Construction work would remain visually intrusive despite the identified embedded mitigation measures. Vegetation removed during construction would be reinstated. Once established, this would reduce the anticipated effects.
Properties on the west of Whitacre Street (north of MVL3/101)	**Moderate adverse**	**Moderate adverse**	**Moderate adverse**	Construction work would remain visually intrusive despite the identified embedded mitigation measures. Vegetation removed during construction would be reinstated. Nevertheless, the introduction of new railway infrastructure such as OLE and Deighton Station would be visually intrusive.
Whitacre Street (south of MVL3/101)	**Major adverse**	**Major adverse**	**Major adverse**	Construction work would remain visually intrusive despite the identified embedded mitigation measures. The loss of vegetation during construction cannot be mitigated for. Therefore, a noticeable change in the view would occur as the properties would experience more open views of the railway including new OLE.
Glen Field Avenue (north facing properties which back on to the Scheme)	**Moderate adverse**	**Moderate adverse**	**Not significant**	Construction work would remain visually intrusive despite the identified embedded mitigation measures.

Representative	Significant residual effect			
				Vegetation removed during construction would be reinstated. Once established, this would reduce the anticipated effects.
Leeds Road No. 682 to 684	**Major adverse**	**Moderate adverse**	Not significant	Construction work would remain visually intrusive despite the identified embedded mitigation measures. Vegetation removed during construction would be reinstated. Once established, this would reduce the anticipated effects.
Route Section 4				
Waterside Walk and Wood Lane	**Major adverse**	**Major adverse**	**Major adverse**	Construction work would remain visually intrusive despite the identified embedded mitigation measures. OLE would be visible on top of the embankment and introduce a noticeable change in the view. No mitigation is available in this location.
Helm Lane	**Major adverse**	**Moderate adverse**	Not significant	Construction work would remain visually intrusive despite the identified embedded mitigation measures. Vegetation removed during construction would be reinstated. Once established, this would reduce the anticipated effects.
Route Section 5				
Lower Hopton and Calder View	**Moderate adverse**	**Moderate adverse**	Not significant	Construction work would remain visually intrusive despite the identified embedded mitigation measures. During construction as much existing planting would be retained as possible in this location. Vegetation removed during construction would be reinstated. Once established, this would reduce the anticipated effects.

Representative	Significant residual effect			
Properties west of River Calder (including Calder Road, Chadwick Lane, Calder View and Woodend Road)	**Major adverse**	**Moderate adverse**	**Moderate adverse**	Construction work would remain visually intrusive despite the identified embedded mitigation measures. Vegetation removed during construction would be reinstated. Once established, this would reduce the anticipated effects. However, OLE will would remain a visible raised feature on the Mirfield Viaduct (MVN2/192) at some properties.
Back Station Road (north facing properties)	**Major adverse**	**Moderate adverse**	**Moderate adverse**	Construction work would remain visually intrusive despite the identified embedded mitigation measures. During operation, OLE would be visible from upper storey windows. Changes at Mirfield Station would be a prominent feature in the view.
South Brook Gardens (west facing properties)	**Moderate adverse**	**Moderate adverse**	**Moderate adverse**	Construction work would remain visually intrusive despite the identified embedded mitigation measures. During operation, OLE would be visible from upper storey windows. Changes at Mirfield Station would be a prominent feature in the view.
Route Section 6				
Mavis Street	**Moderate adverse**	**Moderate adverse**	**Moderate adverse**	Construction work would remain visually intrusive despite the identified embedded mitigation measures. During operation, OLE would be visible from upper storey windows. Vegetation clearance to the south of the railway line is anticipated to be visible from upper storey windows.

10.8 Cumulative effects

10.8.1 Cumulative effects can include intra-Scheme effects and inter-Scheme effects.

- Intra-Scheme effects (or in-combination synergistic effects) are the combined impact from a single project on a single receptor or resource;
- Inter-Scheme effects are the combined impact of a number of different projects within the vicinity (in combination with the Scheme) on a single receptor.

Intra-Scheme (synergistic) impacts

10.8.2 Potential intra-scheme effects may occur from interaction with other environmental topics.

10.8.3 Potential synergistic impacts have been identified that correspond to landscape, townscape and visual impact. These include:

- Chapter 6 (Historic environment)

10.8.4 Further consideration of cumulative effects is provided in Chapter 22 (Cumulative effects) of this ES.

Inter-Scheme effects

10.8.5 Inter-Scheme cumulative effects may occur from interaction with other proposed developments (Reasonably Foreseeable Future Projects (RFFPs) located near the Scheme. When combined with the works in the Scheme area these could cumulatively affect sensitive receptors. Inclusion of RFFPs includes their proximity to the Scheme, likely impacts and timing of construction and operation.

10.8.6 The potential inter-Scheme cumulative effects in relation to landscape, townscape and visual impacts are detailed in Table 10-17.

Table 10-17 Potential inter-Scheme cumulative effects

Route Section	Planning Application ref.	Development description	Location	Planning status	EIA available	Potential cumulative	
						Construction	Operation
1 – Huddersfield	2020/90014	Demolition of existing building and erection of car sales and speculative B1/B2 unit with associated parking and access	11, The Triangle, Market Street, Paddock, Huddersfield, HD1 4RN	Conditional Full Permission – March 2020	No supporting environmental information	This development would result in temporary impacts on the local landscape character and visual amenity as a result of construction work taking place. While this may affect viewpoint 3, the anticipated changes would be localised and temporary. It is unlikely to lead to significant cumulative effects.	The proposed development would appear to be in keeping with the existing baseline context and is unlikely to lead to significant cumulative effects.
1 – Huddersfield	Strategic highway scheme	Highways improvements to the junction of Huddersfield Ring Road/Southgate/ Northumberland Street.	Kirklees Council	Strategic Scheme	No information available.	The junction of Huddersfield Ring Road/ Southgate/ Northumberland Street lies further to the east and south of the proposed works and roads that are predicted to be temporarily directly affected by the Scheme. This development would result in temporary impacts on the local landscape character and visual amenity as a result of construction work taking place. However, based on the understanding of the proposed development, the anticipated effects would be localised and temporary. Given the distance to the Scheme, it is unlikely to lead to significant cumulative effects.	While the proposed improvement works to the highways would alter the local townscape, these changes would be in keeping with the existing urban context and would not affect the townscape character or visual amenity of the existing baseline. The proposed development is unlikely to lead to significant cumulative effects.
1 – Huddersfield	Strategic highway scheme	Highways improvements to the junction of Leeds Road/Lower Fitzwilliam Street/Gasworks Street.	Kirklees Council	Strategic Scheme	No information available.	The junction of Leeds Road/Lower Fitzwilliam Street/Gasworks Street lies further to the east of the proposed works and roads that are predicted to be temporarily directly affected by the Scheme. Temporary impacts on the local landscape character and visual amenity would arise as a result of construction of this development. However, based on the understanding of the proposed development, the anticipated effects would be localised and temporary. It is unlikely to lead to significant cumulative effects.	While the proposed improvement works to the highways would alter the local townscape, these changes would be in keeping with the existing urban context and would not affect the townscape character or visual amenity of the existing baseline. The proposed development is unlikely to lead to significant cumulative effects.
1 – Huddersfield 2 – Hillhouse and Fartown	Strategic highway scheme	A62 Smart Corridor (Leeds Road - Phase 1)	Kirklees Council	Strategic Scheme	No information available.	Temporary impacts on the local landscape character and visual amenity would arise as a result of construction of this development. However, based on the understanding of the proposed development, the anticipated effects would be localised and temporary. Given the distance to the Scheme, it is unlikely to lead to significant cumulative effects.	While the proposed improvement works to the highways would alter the local townscape, these changes would be in keeping with the existing urban context and would not affect the townscape character or visual amenity of the existing baseline. The proposed development is unlikely to lead to significant cumulative effects.
1 – Huddersfield 2 – Hillhouse and Fartown	Strategic highway scheme	Highways improvements to the junction of Leeds Road/Thistle Street/Hillhouse Lane.	Kirklees Council	Strategic Scheme	No information available.	The junction of Leeds Road/Thistle Street/ Hillhouse Lane lies further to the east of the proposed works, Temporary impacts on the local landscape character and visual amenity would arise as a result of construction of the development. However, based on the understanding of the proposed development, the anticipated effects would be localised and	While the proposed improvement works to the highways would alter the local townscape, these changes would be in keeping with the existing urban context and would not affect the townscape character or visual amenity of the existing baseline. The proposed development is unlikely to lead to significant cumulative effects.

Route Section	Planning Application ref.	Development description	Location	Planning status	EIA available	Potential cumulative	
						Construction	Operation
						temporary. It is unlikely to lead to significant cumulative effects.	
2 – Hillhouse and Fartown	Strategic highway scheme	Highways improvements to the junction of Leeds Road/Old Fieldhouse Road. The junction of Leeds Road/Old Fieldhouse Road lies further to the east of the proposed works.	Kirklees Council	Strategic Scheme	No information available.	Temporary impacts on the local landscape character and visual amenity would arise as a result of construction of the development. However, based on the understanding of the proposed development, the anticipated effects would be localised and temporary. It is unlikely to lead to significant cumulative effects.	While the proposed improvement works to the highways would alter the local townscape, these changes would be in keeping with the existing urban context and would not affect the townscape character or visual amenity of the existing baseline. The proposed development is unlikely to lead to significant cumulative effects.
3 – Deighton and Bradley	2017/91111	Outline application for erection of industrial development for B1 (business), B2 (general industry), and B8 (storage and distribution) uses	Station Road, Bradley, HD2 1UT	Conditional Outline Permission August 2017	No EIA but application is supported by environmental assessments in relation to contaminated land, transport, arboriculture, ecology as well as a FRA	Temporary impacts on the local landscape character and visual amenity would arise as a result of construction of the development. However, based on the understanding of the proposed development, the anticipated effects would be localised and temporary. It is unlikely to lead to significant cumulative effects.	The proposed development would appear to be in keeping with the existing baseline context and is unlikely to lead to significant cumulative effects. The proposed development is unlikely to lead to significant cumulative effects.
4 – Colne Bridge and Battyeford	2016/93896	Erection of 4 dwellings and associated works	Site off, Station Road, Bradley, Huddersfield, HD2 1US	Conditional Full Permission – February 2017	No EIA – application is supported by a Design and Access Statement.	Temporary impacts on the local landscape character and visual amenity would arise as a result of construction work taking place. However, based on the understanding of the proposed development, the anticipated effects would be localised and temporary. It is unlikely to lead to significant cumulative effects.	The proposed development would appear to be in keeping with the existing baseline context and is unlikely to lead to significant cumulative effects.
4 – Colne Bridge and Battyeford	2017/91208	Outline application for erection of industrial development of up to 3684 sqm B1c/B2/B8, with means of access (to, but not within, the site) from Colnebridge Road	Land adjacent to Colnebridge WWTW, Colnebridge Road, Bradley	Conditional Outline Permission – Nov 2017	No EIA but application is supported by environmental assessments in relation to noise, transport, arboriculture, ecology as well as a FRA.	Temporary impacts on the local landscape character and visual amenity would arise as a result of construction work taking place. This may be visible in viewpoint 33. However, based on the understanding of the proposed development, the anticipated effects would be localised and temporary. It is unlikely to lead to significant cumulative effects.	The proposed development would appear to be in keeping with the existing baseline context. The completed development may be visible in viewpoint 33 and would alter the existing baseline conditions. Nevertheless, this is unlikely to lead to significant cumulative effects,
4 – Colne Bridge and Battyeford	Strategic highway scheme	A62/A644 Wakefield Road (Cooper Bridge) - The junction of A62 Cooper Bridge/A644 Wakefield Road/A62 Leeds Road lies further to the north of the proposed works.	Kirklees Council	Strategic Scheme	No information available.	Temporary impacts on the local landscape character and visual amenity would arise as a result of construction work taking place. However, based on the understanding of the proposed development, the anticipated effects would be localised and temporary. It is unlikely to lead to significant cumulative effects.	The proposed development would appear to be in keeping with the existing baseline context and is unlikely to lead to significant cumulative effects.
4 – Colne Bridge and Battyeford	Strategic housing scheme	Kirklees Local Plan Allocation HS11 – housing allocation for 1,460 dwellings with potential for a further 498 dwellings beyond the plan period	Land north of Bradley Road, Bradley		No information available.	Temporary impacts on the local landscape character and visual amenity would arise as a result of construction work taking place. However, based on the understanding of the proposed development, the anticipated effects would be localised. Given the distance to the Scheme, it is unlikely to lead to significant cumulative effects.	The proposed development would introduce new built form. However, the proposed development is unlikely to lead to significant cumulative effects.
6 – Ravensthorpe and Westtown	2017/94119	Demolition of existing building, erection of new building for educational classroom, cafe and	Land off Sands Lane, Mirfield, WF14	Conditional Full	No EIA but application is supported by a bat	Temporary impacts on the local landscape character and visual amenity would arise as a result of construction work taking place.	The development would provide a new building in close proximity to the railway line. The new building would be of a similar

Route Section	Planning Application ref.	Development description	Location	Planning status	EIA available	Potential cumulative	
						Construction	Operation
		toilets, upgraded access road, car parking, cycle parking, picnic and play areas.		Permission – May 2018	survey and FRA sequential test.	However, based on the understanding of the proposed development, the anticipated effects would be localised. Given the distance to the Scheme, it is unlikely to lead to significant cumulative effects.	size and scale to the existing built form. As such it would have no effect on the existing baseline conditions and would not disrupt the landscape character and visual amenity of the Scheme and so is not anticipated to have significant cumulative effects when considered with the Scheme.
6 – Ravensthorpe and Westtown	2017/90443	Erection of 3 units for B1 (light industrial) and B8 use, erection of two storey office building and alterations to existing building	Ratcliffe Mills, Forge Lane, Thornhill Lees, Dewsbury, WF12 9BU	Conditional Full Permission – Nov 2017	No EIA but application is supported by environmental assessments in relation to agriculture, transport as well as a FRA.	Temporary impacts on the local landscape character and visual amenity would arise as a result of construction work taking place. However, based on the understanding of the proposed development, the anticipated effects would be localised and temporary. It is unlikely to lead to significant cumulative effects.	The development would introduce new built form into the study area. it would be of a similar appearance to the existing built form. In addition, the existing vegetated boundary along the railway line to the north of the site provides considerable screening effects to the proposed development. While this would introduce new built form, this would be in keeping with the existing built form and would not affect the landscape/townscape character. The proposed development is unlikely to lead to significant cumulative effects.
6 – Ravensthorpe and Westtown	2016/94241	Non-Material Amendment to previous permission 2007/91742 for erection of 7 terraced industrial units	Calder Bank Road, Thornhill Lees, Dewsbury, WF12 9QB	NMA Approved – May 2017		Temporary impacts on the local landscape character and visual amenity would arise as a result of construction work taking place. However, based on the understanding of the proposed development, the anticipated effects would be localised and temporary. It is unlikely to lead to significant cumulative effects.	The development would introduce new built form into the study area. it would be of a similar appearance to the existing built form. The woodland buffer to the railway line would be retained. The proposed development is not anticipated to have significant cumulative effects.
6 – Ravensthorpe and Westtown	2016/94118	Outline application for residential development	Land off Ravensthorpe Road, Dewsbury	Conditional Outline Permission – April 2017	No EIA but application is supported by environmental assessments in relation to contaminated land, ecology, arboriculture and transport. A conservation/heritage assessment and FRA have also been submitted.	The proposed development would introduce new housing units. Temporary impacts on the local landscape character and visual amenity would arise as a result of construction work taking place. However, based on the understanding of the proposed development, the anticipated effects would be temporary and are unlikely to lead to significant cumulative effects.	Due to the relative distance from the Scheme, the proposed development is not considered to result in significant cumulative effects.
6 – Ravensthorpe and Westtown	2016/94117	Outline application for 120 residential units at Lees Hall Road	Land off Lees Hall Road, Dewsbury	Conditional Outline Permission	No EIA but application is supported by environmental assessments in relation to contaminated land, ecology and transport. A conservation/heritage assessment and FRA have also been submitted.	The proposed development would introduce new housing units. Temporary impacts on the local landscape character and visual amenity would arise as a result of construction work taking place. However, based on the understanding of the proposed development, the anticipated effects would be temporary and are unlikely to lead to significant cumulative effects.	Due to the relative distance from the Scheme, the proposed development is not considered to result in significant cumulative effects.
6 – Ravensthorpe and Westtown	2017/94080	Erection of precast concrete production unit, demolition of existing casting shed and ancillary buildings, associated site works to modify	C R Longley And Co Ltd, Ravensthorpe Road,	Conditional Full Permission – July 2018	No EIA but application is supported by environmental assessments in relation	Temporary impacts on the local landscape character and visual amenity would arise as a result of construction work taking place. However, based on the understanding of the	Due to the relative distance from the Scheme, the proposed development is not considered to result in significant cumulative effects.

Route Section	Planning Application ref.	Development description	Location	Planning status	EIA available	Potential cumulative	
						Construction	Operation
		external storage areas and installation of gantry cranes – condition to vary plans and specs (2019/92570)	Thornhill Lees, WF12 9EF	(approval of condition November 2019)	to noise, air quality, ecology and transport. A conservation/heritage assessment and FRA have also been submitted.	proposed development, the anticipated effects would be localised and temporary. It is unlikely to lead to significant cumulative effects.	
6 – Ravensthorpe and Westtown	Strategic housing scheme	Kirklees Local Plan Allocation HS61 (Dewsbury Riverside) – housing allocation for 4000 units (1869 units during plan period, with potential for a further 2131 beyond the plan period).	Land off Ravensthorpe Road, Dewsbury		Dewsbury Riverside Masterplan document is available.	The proposed development would introduce new housing units. Temporary impacts on the local landscape character and visual amenity would arise as a result of construction work taking place. This may be visible in viewpoints 27 and 39. However, based on the understanding of the proposed development and the distance from the Scheme, the anticipated effects would be temporary and are unlikely to lead to significant cumulative effects.	Due to the relative distance from the Scheme, the proposed development is not considered to result in significant cumulative effects.

10.8.7 It is anticipated that any developments brought forward will be subject to National and Local Policy as well as legislative requirements and application of best practice measures and will be required to ensure that mitigation and control measures are adopted during construction and operation of the projects. Considering this and the RFFPs relevant to landscape and visual impact there is a low potential for cumulative impacts during either construction or operation.

10.8.8 Overall, the RFFP would not affect the integrity of the landscape and townscape character. The visual amenity of the railway line would be affected in viewpoints 21, 27 and 39. However, while these views would change as a result of the proposed cumulative developments, these changes would be localised, and the overall visual baseline would not change.