

A1 in Northumberland: Morpeth to Ellingham

Scheme Number: TR010041

6.2 Environmental Statement – Chapter 7 Landscape and Visual

Part A

APFP Regulation 5(2)(a)

Planning Act 2008

Infrastructure Planning (Applications: Prescribed
Forms and Procedure) Regulations 2009

June 2020

Infrastructure Planning

Planning Act 2008

**The Infrastructure Planning
(Applications: Prescribed Forms and
Procedure) Regulations 2009**

**The A1 in Northumberland: Morpeth to Ellingham
Development Consent Order 20[xx]**

Environmental Statement

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7. LANDSCAPE AND VISUAL

7.1. INTRODUCTION

- 7.1.1. This chapter presents the assessment of likely significant landscape and visual effects as a result of Part A: Morpeth to Felton (Part A).
- 7.1.2. The Landscape and Visual Impact Assessment (LVIA) considers the two separate (but linked) topics of:
- a. Landscape: landscapes take their character from a combination of elements, including landform, land use and pattern, land cover (vegetation and built form), open space and the influence of heritage features.
 - b. Visual Effects: effects on specific views and on the general visual amenity experienced by people, such as:
 - i. The direct effects of Part A on the context and character of view
 - ii. The overall effect of the change on visual amenity
- 7.1.3. This chapter also identifies, where appropriate, proposed mitigation measures to prevent, minimise or control the likely adverse landscape and visual effects arising from the construction and operation phases of Part A, and the subsequent residual effects.
- 7.1.4. A full description of Part A, along with the Scheme as a whole is set out in **Chapter 2: The Scheme, Volume 1** of this ES (**Application Document Reference: TR010041/APP/6.1**). An assessment of combined effects of Part A is set out in **Chapter 15: Assessment of Combined Effects** of this ES and combined and cumulative effects of the Scheme are set out in **Chapter 16: Assessment of Cumulative Effects, Volume 4** of this ES (**Application Document Reference: TR010041/APP/6.4**).
- 7.1.5. This chapter should also be read alongside the following appendices (**Volume 7** of this ES (**Application Document Reference: TR010041/APP/6.7**)):
- a. **Appendix 7.1: Landscape Effects Schedule**
 - b. **Appendix 7.2: Viewpoints Visual Effects Schedule**
 - c. **Appendix 7.3: Residential Visual Effects Schedule**
 - d. **Appendix 7.4: Public Rights of Way Visual Effects Schedule**
 - e. **Appendix 7.5: Arboricultural Report**
- 7.1.6. **Section 4.3 of Chapter 4: Environmental Assessment Methodology, Volume 1** of this ES (**Application Document Reference: TR010041/APP/6.1**) identifies any differences in the assessment methodology employed for Part A and Part B: Alnwick to Ellingham (Part B). Further to this, there are other differences between the chapters for Part A and Part B. All key differences include:
- a. There are differences between Part A and Part B that relate to the scoping process, for example elements that are scoped in and out of the assessment. Refer to the **Scoping Report (Application Document Reference: TR010041/APP/6.10)** and **Scoping**

- Opinion (Application Document Reference: TR010041/APP/6.12)** for Part A, and the **Scoping Report (Application Document Reference: TR010041/APP/6.11)** and **Scoping Opinion (Application Document Reference: TR010041/APP/6.13)** for Part B.
- b.** A different approach has been used with the use of viewpoints for assessments for Part A and Part B, to reflect the nature of the receptors in the different Study Areas (fewer receptors for Part B and within a more enclosed online corridor). For Part A, assessment was undertaken for every receptor and viewpoint. For Part B, assessment was undertaken for receptors only. These assessments are directly comparable in terms of assessment approach as the users / occupiers of all sensitive visual receptors have been assessed to an appropriately detailed level for both Part A and Part B, but with some broader additional viewpoints included for Part A. The more limited range of the viewpoints for the Part B assessment was decided on the basis that there are very few dwellings and other receptors within the Study Area, including highways and commercial development.
 - c.** Footpaths were split into sections for Part A, whereas for Part B the worst case section of the footpath was assessed on the assumption that users would generally walk the whole footpath rather than a particular section so would experience the footpath as a whole. This is due to the broader network of Public Rights of Way (PRoW) for Part A that allows a more varied walking route selection, whereas the PRoW network associated with Part B is less well connected and therefore opportunities to vary routes are reduced and it is anticipated that walkers would use the whole PRoW route. However, these assessments are directly comparable and the assessments both identify the users of PRoW as the highest order of sensitivity. Whilst the figures on Part A differentiate the sections of PRoW where lower orders of impact are anticipated to arise, these are not specifically differentiated within the assessment schedule.
 - d.** National Character Areas (NCAs) were scoped out of the Part B assessment because the scale of Part B (and the extent and the degree to which landscape change would arise is less than for Part A) in relation to the scale of the NCA would be such that there would be no possibility of Part B having a significant effect on the NCAs. Additionally, Part B would be predominantly online widening of an existing trunk road, whereas Part A would comprise an extensive offline section.
 - e.** Part A and Part B both use a 2 km visual assessment Study Area (Part A was reduced from 5 km to 2 km during the assessment process). However, the Study Area for the landscape character assessment is 5 km for Part A and 2 km for Part B. This is due to the more open nature of the landscape for Part A affording wider appreciation of Part A in the landscape, and therefore requiring a wider Study Area. The Study Areas have been agreed through consultation (refer to **Section 7.4**).
 - f.** The Part A assessment refers to The Landscape Institute, Technical Guidance Note 02/17 Visual Representation of Development Proposals (March 2017) (**Ref. 7.1**). However, this was replaced by Technical Guidance Note 06/19, Visual Representation of Development Proposals (September 2019) (**Ref. 7.2**), by which time the Part A assessment was complete. However, the Part A assessment also referred to the

emerging guidance published by the Landscape Institute, which was formally adopted in September 2019 (**Ref. 7.3**) in the undertaking of photographs for the photomontages presented in **Figure 7.11: Photomontages, Volume 5** of this ES (**Application Document Reference: TR010041/APP/6.5**). Therefore, the information presented reflects the current guidance provided in Technical Guidance Note 06/19, Visual Representation of Development Proposals (September 2019) (**Ref. 7.2**).

- g.** Part A refers to the Northumberland Landscape Character Assessment; Part B Landscape Classification (**Ref. 7.4**) in identifying and assessing the local landscape character baseline, whereas Part B identifies regional character areas from the Northumberland Landscape Character Assessment; Part B Landscape Classification (**Ref. 7.4**) and local landscape character from the Alnwick Landscape Character Assessment Supplementary Planning Document (SPD) (**Ref. 7.5**). This is simply a reflection of the scale at which the Northumberland Landscape Character Assessment; Part B Landscape Classification (**Ref. 7.4**) was prepared, covering the whole of the county. The Alnwick Landscape Character Assessment Supplementary Planning Document (SPD) (**Ref. 7.5**) referred to in the assessment of Part B refers to broadly similar landscape character areas in terms scale, extent and nature of the character areas. Therefore, comparable assessments of local landscape character of Parts A and B have been undertaken. Furthermore, much of the detail for Part B is presented in an appendix. However, this does not change the approach to, or outcome of, the assessment.
- h.** A night time assessment has been undertaken for Part A to determine potential impacts from vehicle headlights, particularly associated with the proposed junctions and the proposed offline section. A night time assessment was not undertaken for Part B as there is no lighting proposed and the impact of traffic headlights would not substantially increase the effect on currently unlit landscape areas.

7.2. COMPETENT EXPERT EVIDENCE

7.2.1. **Table 7-1** below demonstrates that the professionals contributing to the production of this chapter have sufficient expertise to ensure the completeness and quality of this assessment.

Table 7-1 – Relevant Experience

| Name | Role | Qualifications and Professional Membership | Relevant Experience |
|------------|--------|--|--|
| Fearn Sims | Author | BSc (Hons) Landscape & Ecology Master of Landscape Architecture (MLA) | Landscape Consultant Over 10 years of experience in impact assessment. Other recent relevant experience includes: |

| Name | Role | Qualifications and Professional Membership | Relevant Experience |
|-----------------|----------|--|---|
| | | Chartered Member of the Landscape Institute (CMLI) Associate Member of the Institute of Ecology and Environmental Management (ACIEEM) | <ul style="list-style-type: none"> - Section 1, 2 and 3 of the A465 Heads of the Valleys dualling in Wales - Newtown Bypass - Wrexham Industrial Estate Relief Road - A4226, St Athan, South Wales - Standalone LVIAs for a range of projects including residential housing developments and the energy sector throughout the UK |
| Clare Horner | Reviewer | BA (Hons) MLA CMLI | Associate Director Over 20 years' experience in LVIA in the energy and minerals sectors, and townscape and visual impact assessment. |
| Andrew Williams | Approver | BA (Hons) Landscape Architecture Grad Dip (Landscape Architecture) CMLI (Chartered member of the Landscape Institute) | Technical Manager 24 years' experience preparing landscape and visual impact assessments. Other recent relevant experience includes: <ul style="list-style-type: none"> - A9 Dualling Tomatin to Moy (statutory Environmental Impact Assessment (EIA)) - Oxon Link Road (statutory EIA) - East Leeds Orbital Road (statutory EIA) |

7.3. LEGISLATIVE AND POLICY FRAMEWORK

LEGISLATION

7.3.1. This assessment has taken into account the legislative and policy framework as summarised below.

International Legislation

- 7.3.2. The UK is a signatory to the European Landscape Convention (ELC) (**Ref. 7.6**) which was ratified in 2006 and became binding in the UK from 1 March 2007. The Convention is not an EU Directive, rather countries that ratify the Convention make a commitment to upholding the principles it contains within the context of their own domestic legal and policy frameworks.
- 7.3.3. Within the ELC (**Ref. 7.6 page 4**), landscape is defined as: “*an area, as perceived by people, whose character is the result of the action and interaction of natural and / or human factors.*” Furthermore, it recognises that all landscapes are potentially important, irrespective of location or condition – signatories acknowledge “... *that the landscape is an important part of the quality of life for people everywhere: in urban areas and in the countryside, in degraded areas as well as in areas of high quality, in areas recognised as being of outstanding beauty as well as everyday areas*” (**Ref. 7.6 page 3**).
- 7.3.4. The spirit of the ELC is carried through in planning policy and Natural England guidance; An Approach to Landscape Character Assessment (**Ref. 7.7**).

National Legislation

- 7.3.5. In addition to the above, specific legislation relating to individual landscape elements, which contribute to an area’s sense of place and character are listed below.

Wildlife and Countryside Act 1981 (As Amended) (Ref 7.8)

- 7.3.6. This Act is the primary legislation that protects animals, plants and habitats in the UK. Detailed requirements are set out within **Chapter 9: Biodiversity** of this ES. **Figure 7.8: Landscape Mitigation Masterplan, Volume 5** of this ES (**Application Document Reference: TR010041/APP/6.5**) considers the ecological and biodiversity objectives that are driven by Wildlife and Countryside Act.

The Hedgerows Regulations 1997 (Ref 7.9)

- 7.3.7. Certain hedgerows are offered protection under The Hedgerows Regulations 1997. These regulations determine the legal value of hedgerows and the penalties for their loss, where removed or lost to a scheme or development.

The Countryside and Rights of Way Act 2000 (Ref 7.10)

- 7.3.8. The Countryside and Rights of Way Act 2000 (CROW Act) contains measures to improve public access to the open countryside and registered common land while recognising the legitimate interests of those who own and manage the land concerned; it amends the law relating to rights of way; it amends the law relating to nature conservation by strengthening protection for Sites of Special Scientific Interest (SSSI); it provides for access (and limitations to access) for the general public and statutory undertakers. Additionally, the CROW Act is the legislative framework for Areas of Outstanding Natural Beauty (AONB), providing powers for Local Authorities to conserve and enhance these areas.

Natural Environment & Rural Communities Act 2006 (Ref. 7.11)

- 7.3.9. The Natural Environment and Rural Communities Act 2006 (NERC Act) established Natural England as an independent body responsible for conserving, enhancing and managing England's natural environment. The Act also identified the Commission for Rural Communities as an independent advocate, watchdog and expert adviser for rural England with a focus on deprived areas and the law on rights of way.

Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (EIA Regulations) (Ref. 7.12)

- 7.3.10. These regulations (implementing a European Directive) require an EIA to be carried out, before planning permission can be granted for certain types of major road schemes which are judged to have likely significant environmental effects.

Tree Preservation Orders (Ref 7.13)

- 7.3.11. The law on Tree Preservation Orders is derived from Part VIII of the Town and Country Planning Act 1990 (**Ref. 7.13**) as amended and in the Town and Country Planning (Tree Preservation) (England) Regulations 2012 (**Ref. 7.14**) which came into force on 6 April 2012. Section 192 of the Planning Act 2008 (**Ref. 7.15**) made further amendments to the 1990 Act which allowed for the transfer of provisions from within existing Tree Preservation Orders to regulations. Part 6 of the Localism Act 2011 (**Ref. 7.16**) amended Section 210 of the Town and Country Planning Act 1990 concerning time limits for proceedings regarding non-compliance with Tree Preservation Order regulations. This is discussed in detail within **Appendix 7.5: Arboricultural Report, Volume 7** of this ES (**Application Document Reference: TR010041/APP/6.7**).

POLICY

National

- 7.3.12. National planning policy is laid down within the National Policy Statement for National Networks (NPS NN) (**Ref.7.17**) published in December 2014 and the National Planning Policy Framework (NPPF) (**Ref 7.18**), published in March 2012, revised February 2019. The overall strategic aims of the NPS NN and the NPPF are consistent, however they have differing, but equally important roles to play.
- 7.3.13. The NPPF makes clear that it is not intended to contain specific policies relating to NSIPs, relying on the NPS NN to fulfil this role.
- 7.3.14. National policy relevant to landscape and visual effects and the significance of Part A on the policy objectives is outlined in **Table 7-2** below. The NPS NN represents the national policy applicable for this Scheme.
- 7.3.15. Reference has also been made to advice published in July 2019 on 'Green Belt - Advice on the role of the Green Belt in the planning system' (**Ref. 7.19**). Of relevance are several factors to take account of the potential impact of development on the openness of Green Belt, and specifically the spatial and visual aspects and the duration of a development. The

visual impact has been set out within this LVIA and the impact on the openness is considered within **Section 7.8** and also within the **Case for the Scheme (Application Document Reference: TR010041/APP/7.1)**.

Local

7.3.16. For the purpose of this chapter, those policies located within 2 km of Part A's centre line, the Study Area (refer to **Section 7.6**), have been considered with respect to landscape character and visual amenity.

Emerging Northumberland Local Plan – Publication Draft (January 2019)

7.3.17. The Emerging Northumberland Local Plan (**Ref. 7.20**), is intended to replace all current District and County Council Local Plans and Core Strategy documents into a single document. Neighbourhood Plans would not be replaced by the Emerging Northumberland Local Plan and would remain of relevance when determining planning applications.

7.3.18. The overarching vision of the Emerging Northumberland Local Plan states “Northumberland's physical and cultural identity would be conserved and nurtured; its resources would be utilised in a sustainable way. The breadth, scale and quality of its special, varied landscapes and biodiversity would be conserved, enhanced and increased. The quality of its buildings and spaces would be conserved and improved. New development would be well designed, minimise environmental harm and reduce the effects of climate change” (**Ref. 7.20 page 35**).

7.3.19. Once adopted, the Emerging Northumberland Local Plan, would supersede the following documents, applicable to the subject specific Study Area:

- a. Alnwick Core Strategy (October 2007) (**Ref. 7.21**).
- b. Alnwick District Wide Local Plan (April 1997) – saved policies (**Ref. 7.22**).
- c. Castle Morpeth District Local Plan (February 2003) – saved policies (**Ref. 7.23**).
- d. Northumberland County and National Park Joint Structure Plan (February 2005) saved policy S5 (**Ref. 7.24**).

7.3.20. Until the Emerging Northumberland Local Plan is adopted, the adopted Core Strategies and the ‘Saved’ policies put in place by the former County Council and District/Borough Councils would be used to guide development proposals, these are set out within the Northumberland Consolidated Planning Policy Framework (**Ref 7.25**), in combination with the retained Neighbourhood Plans:

- a. Morpeth Neighbourhood Plan (May 2016) (**Ref. 7.26**).

7.3.21. Local policy relevant to landscape and visual issues and the significance of Part A on the policy objectives is outlined in **Table 7-3** below.

Table 7-2 - National Planning Policy Relevant to Landscape and Visual

| Policy | Relevant Policy Objectives | Significance of Part A on Policy Objective |
|---|--|--|
| National Policy Statement for National Networks 2014 (Ref.7.17) | | |
| Para 4.29 | Visual appearance should be a key factor in considering the design of new infrastructure, as well as functionality, fitness for purpose, sustainability and cost. Applying “good design” to national network projects should therefore produce sustainable infrastructure sensitive to place, efficient in the use of natural resources and energy used in their construction, matched by an appearance that demonstrates good aesthetics as far as possible. | Consideration has been given to the visual appearance of Part A and how it sits within the receiving environment. This includes the slackening of earth embankments, the careful placement of screen bunds, reducing the requirement to dispose of material off site, and the nature of the proposed planting retaining long distance views where possible and/or appropriate. |
| Para 5.145 | The applicant’s assessment should include any significant effects during construction of the project and/or the significant effects of the completed development and its operation on landscape components and landscape character (including historic landscape characterisation). | The LVIA addresses this requirement in paragraphs 7.10.3 to 7.10.22 of this chapter and Section 8.10 of Chapter 8: Cultural Heritage of this ES. |
| Para 5.146 | The assessment should include the visibility and conspicuousness of the project during construction and of the presence and operation of the project and potential impacts on views and visual amenity. This should include any noise and light pollution effects, including on local amenity, tranquillity and nature conservation. | The methodology is set out in paragraphs 7.4.12 to 7.4.58 of this chapter. This methodology has been agreed with the relevant consultees as set out in Table 7-4 of this chapter. |
| Para 5.156 | Outside nationally designated areas, there are local landscapes that may be highly valued locally and protected by local designation. Where a local development document in England has policies based on landscape character assessment, these should be given particular consideration. However, local landscape designations should not be used in themselves as reasons to refuse consent, as this may unduly restrict acceptable development. | Within the Study Area there are a number of ‘Areas of High Landscape Value’ which is a policy led designation. These have been taken into consideration when judging the sensitivity of the Landscape Character Areas (LCAs) affected by Part A. |
| Para 5.157 | In taking decisions, the Secretary of State should consider whether the project has been designed carefully, taking account of environmental effects on the landscape and siting, operational and other relevant constraints, to avoid adverse effects on landscape or to minimise harm to the landscape, including by reasonable mitigation. | Section 7.9 of this chapter details the mitigation measures proposed in order to reduce significant adverse impacts as a result of Part A upon the receiving environment. |
| Para 5.158 | The Secretary of State would have to judge whether the visual effects on sensitive receptors, such as local residents, and other receptors, such as visitors to the local area, outweigh the benefits of the development. Coastal areas are particularly vulnerable to visual intrusion because of the potential high visibility of development on the foreshore, on the skyline and affecting views along stretches of undeveloped coast, especially those defined as Heritage Coast. | Part A is located c.8.5 km to the west of Northumberland’s coastline. Figure 7.3: Zone of Theoretical Visibility (ZTV), Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5) illustrates the distance between Part A and coastline receptors. During the site visit the extent of the ZTV was surveyed and sensitive receptors therein defined. Individual assessments on visual receptors likely to be significantly affected by Part A are included within Appendix 7.2: Viewpoints Visual Effects Schedule, Appendix 7.3: Residential Visual Effects Schedule and Appendix 7.4: Public Right of Way Visual Effects Schedule, Volume 7 of this ES (Application Document Reference: TR010041/APP/6.7). |
| Para 5.160 | Adverse landscape and visual effects to be minimised through the appropriate siting of infrastructure, design (including choice of materials) and landscaping schemes, depending on the size and type of proposed project. Materials and designs for infrastructure should always be given careful consideration | The design process has sought to avoid significant effects and identify appropriate measures to mitigate potentially significant impacts where they arise, such as maintaining slope profiles of an appropriate gradient to plant screening vegetation. |

| Policy | Relevant Policy Objectives | Significance of Part A on Policy Objective |
|--|--|---|
| Para 5.164 | Green Belts, defined in a development plan, are situated around certain cities and large built-up areas. The fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open; the essential characteristics of Green Belts are their openness and their permanence. For further information on the purposes and protection of Green Belt refer to the National Planning Policy Framework. | Part A is located within an area of Green Belt Extension, that extends from the south of Part A and around Morpeth, extending to the north immediately beyond the Lindon Hall Golf and Country Club, Burgham Park Golf and Leisure Club to the west of the existing A1 and Earsdon Hill to the east of the existing A1. Further discussion on the Green Belt is within the Case for the Scheme (Application Document Reference: TR010041/APP/7.1) . |
| Para 5.171 | Linear infrastructure linking an area near a Green Belt with other locations would often have to pass through Green Belt land. The identification of a policy need for linear infrastructure would take account of the fact that there would be an impact on the Green Belt and as far as possible, of the need to contribute to the achievement of the objectives for the use of land in Green Belts. | Part A has been identified as one such linear infrastructure project resulting in Part A cutting through an area of Green Belt Extension. Further discussion on the Green Belt is within the Case for the Scheme (Application Document Reference: TR010041/APP/7.1) . |
| Para 5.178 | When located in the Green Belt national networks infrastructure projects may comprise inappropriate development. Inappropriate development is by definition harmful to the Green Belt and there is a presumption against it except in very special circumstances. The Secretary of State will need to assess whether there are very special circumstances to justify inappropriate development. Very special circumstances will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm, is clearly outweighed by other considerations. In view of the presumption against inappropriate development, the Secretary of State will attach substantial weight to the harm to the Green Belt, when considering any application for such development. | Part A has been identified as potentially causing harm to the Green Belt and a case of very special circumstances has been outlined within the Case for the Scheme (Application Document Reference: TR010041/APP/7.1) . |
| Para 5.32 | Irreplaceable habitats including ancient woodland and veteran trees. Ancient woodland is a valuable biodiversity resource both for its diversity of species and for its longevity as woodland. Once lost it cannot be recreated. The Secretary of State should not grant development consent for any development that would result in the loss or deterioration of irreplaceable habitats including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the national need for and benefits of the development, in that location, clearly outweigh the loss. Aged or veteran trees found outside ancient woodland are also particularly valuable for biodiversity and their loss should be avoided. Where such trees would be affected by development proposals, the applicant should set out proposals for their conservation or, where their loss is unavoidable, the reasons for this. | This chapter and Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5), along with Appendix 7.5: Arboricultural Report, Volume 7 of this ES (Application Document Reference: TR010041/APP/6.7), details the mitigation proposed in order to reduce adverse impacts created by Part A upon the Duke's Bank ancient woodland within the River Coquet valley. There are no veteran trees affected by Part A. Information on the location of veteran trees is given in Appendix 7.5: Arboricultural Report, Volume 7 of this ES (Application Document Reference: TR010041/APP/6.7). |
| National Planning Policy Framework (Ref 7.18) | | |
| Para 20 | The NPPF requires that strategic policies should set out an overall strategy for the pattern, scale and quality of development and make sufficient provision for conservation and enhancement of the natural, built and historic environment, including landscapes and green infrastructure, and planning measures to address climate change mitigation and adaption. | The emerging Northumberland Local Plan, sets out the policies at a local level and they are discussed in Table 7-3 below. |
| Para 98 | This paragraph states that planning policies and decisions should protect and enhance public rights of way and access, including taking opportunities to provide better facilities for users, for example by adding links to existing rights of way networks including National Trails. | As part of Part A, permanent diversions and enhancements would be made to existing PRoW so that a network of PRoW is maintained during operation and effects on views experienced by users of these routes are mitigated where significant effects are identified. Refer to Chapter 12: Population and Human Health of this ES. |

| Policy | Relevant Policy Objectives | Significance of Part A on Policy Objective |
|------------------------------|--|--|
| Section 15, paras 170 to 183 | These paragraphs address the importance of the natural environment through the protection and enhancement of valued landscapes; recognising the intrinsic character and beauty of the countryside; maintain the character of the undeveloped coast, while improving public access to it where appropriate; minimising impacts on and providing net gains for biodiversity. | <p>A review of the existing landscape character has been carried out in order to identify those features that contribute to the current sense of place. This has been used to develop the proposed Landscape Mitigation Masterplan (Figure 7.8: Landscape Mitigation Plan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)), reinstating landscape elements in keeping with the existing environment.</p> <p>Part A has been developed to avoid or reduce impacts on landscape and develop mitigation and enhancement measures in keeping with the existing setting and biodiversity no net loss requirements as set out in Chapter 9: Biodiversity of this ES.</p> |
| Para 180 | This paragraph notes the importance of tranquillity and requires that planning policies and decisions aim to identify and protect areas of tranquillity which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason. | During the site visit, the Study Area was walked, and photography undertaken. The Study Area is considered as being relatively tranquil, with the exception of the areas immediately adjacent to the existing A1 and A697 road corridors, given the absence of significant built form. The principal land use within the area is agriculture, resulting in large areas of open countryside, which is appreciated by walkers and visitors for its amenity value. Online sections of Part A are within the context of the existing A1 and no changes in existing levels of tranquillity are anticipated. The offline sections of Part A would extend the influence of the A1 corridor to the west, eroding locally perceived tranquillity. However, for much of the offline section, the corridor would remain largely within the context of the existing A1, typically having some inter-visibility between the existing and proposed corridors, and its existing influence on the perceived tranquillity levels. |
| Para 133 - 137 | This paragraph notes the value and fundamental aim of the Green Belts. The essential characteristics of the Green Belts are their openness and their permanence. Once Green Belts have been defined, local planning authorities should plan positively to enhance the beneficial use of the Green Belt, including the retention and enhancement of landscape features and visual amenity, to assist in safeguarding the countryside from encroachment and to preserve the setting and special character of historic towns. | Part A would extend from south to north through an area of designated Green Belt Extension north of Morpeth. With the exception of the offline section, the development is an alteration to an existing feature (the A1) within the Green Belt Extension area. The offline section would represent inappropriate development within the Green Belt in terms of the NPPF; however, Part A has sought to enhance those landscape features already present within the landscape including woodland blocks, and linear hedgerows whilst retaining the openness of the rural setting that is characteristic of the Green Belt designation. Further discussion on the Green Belt is within the Case for the Scheme (Application Document Reference: TR010041/APP/7.1) . |
| Para 143 - 147 | This paragraph outlines the considerations for proposals affecting Green Belt, and in the case of inappropriate development, the need for very special circumstances to be met. | Part A has been identified as being inappropriate development in terms of the NPPF and potentially causing harm to the Green Belt and a case of very special circumstances has been outlined within the Case for the Scheme (Application Document Reference: TR010041/APP/7.1) . |
| Para 175 (c) | This paragraph addresses the importance of ancient woodland, development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists. | Part A would result in an area of ancient woodland being permanently lost. A Woodland Creation Area has been identified on the Landscape Mitigation Masterplan (Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)) . Refer to Chapter 9: Biodiversity of this ES for further details. There is no legislation specific to the preservation of ancient woodland, however, current guidance, as produced by Natural England and the Forestry Commission (Ref. 7.28) is considered as a material consideration when determining planning applications. As such ancient woodland is offered protection under the NPPF (Ref. 7.19). Policies relating directly |

| Policy | Relevant Policy Objectives | Significance of Part A on Policy Objective |
|--------|----------------------------|---|
| | | to ancient woodland and habitat loss are covered within Chapter 9: Biodiversity of this ES. No loss of veteran trees is anticipated as a result of Part A. |

Table 7-3 - Local Planning Policy Relevant to Landscape and Visual

| Policy | Planning Policy Objective | Significance Part A on Policy Objective |
|--|---|--|
| Alnwick District Local Development Framework, Core Strategy DPD (October 2007) (Ref. 7.21) | | |
| Policy 13: Landscape Character | “All proposals for development and change would be considered against the need to protect and enhance the distinctive landscape character of the district. All proposals would be assessed in terms of their impact on landscape features and should respect the prevailing landscape quality, character and sensitivity of each area as defined in the Alnwick District Landscape Character Assessment Supplementary Planning Document”. | When determining the sensitivity of the relevant baseline landscape (within the former Alnwick District area), reference would be made to the landscape character and sensitivity ratings of the Alnwick District Landscape Character Assessment Supplementary Planning Document as set out in paragraph 7.7.26 of this chapter. |
| Policy S16: General Design Principles | “All development would be expected to achieve a high standard of design, reflecting local character and distinctiveness in traditional or contemporary design and materials. Proposals should take full account of the need to protect and enhance the local environment having regard to their layout, scale, appearance, access and landscaping”. | Attention has been placed on the setting of Part A within the receiving environment, in terms of landform, planting and green infrastructure connectivity. This is illustrated in Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5). Where possible, vegetation clearance would be kept to a minimum as shown in Figure 7.9: Vegetation Clearance Plan, Volume 5 of this ES. |
| Alnwick District Wide Local Plan (April 1997) Saved Policies (Ref. 7.22) | | |
| RE17 Protection of Areas of High Landscape Value (AHLV) | “Planning permission would not normally be granted for development which would have a significant and adverse effect on the appearance of the Area of High Landscape Value, Registered Parks and Gardens of Special Historic Interest or the fringe of the Northumberland National Park. Where development is to be permitted, the proposal would be required to demonstrate high standards of design and landscaping consistent with functional requirements”. | There are several AHLVs within the Study Area, however, the northern extent of the Study Area includes an AHLV, located within the former Alnwick District, that Part A would directly impact upon. The location of the AHLVs are illustrated on Figure 2.1: Environmental Constraints Plan: Part A, Volume 1 of this ES (Application Document Reference: TR010041/APP/6.1). Where an AHLV falls within an LCA, these have informed the overall value of the LCA, which contributes to the overall sensitivity for the landscape assessment. |
| Castle Morpeth District Local Plan (February 2003) – saved policies (Ref. 7.23) | | |
| Policy C3 – Areas of High Landscape Value (AHLV) | The council has identified areas of high landscape value and would not permit development which would have a detrimental effect on such areas. (Sections of the Coquet Valley, which lie within the Plan Area, Linden Hall, Mitford, Hepscott, Espley Hall, Tritlington, and Eshott) | The AHLV within the Study Area are identified within Figure 2.1: Environmental Constraints Plan: Part A, Volume 1 of this ES (Application Document Reference: TR010041/APP/6.1). There are several AHLVs within the Study Area, however, the northern extent of the Study Area includes an AHLV, located within the former Alnwick District, that Part A would directly impact upon. When determining the sensitivity of the landscape within the affected area, reference has been made to the inclusion of these areas, considered as being of value at a local scale. |

| Policy | Planning Policy Objective | Significance Part A on Policy Objective |
|--|---|--|
| Policy C12 – Wildlife Corridors | Where development is proposed which would affect identified wildlife corridors, the council would require proposals for the protection, maintenance or enhancement of the corridor through appropriate landscape and habitat creation or re-creation as part of the development proposals. The council would take account of wildlife corridors identified by adjoining authorities. | <p>Part A crosses a number of wildlife corridors that cross the Study Area from west to east. Replacement planting would be carried out as part of the mitigation proposal associated with Part A.</p> <p>In general landscape integration and connectivity to the wider environment has played a key part in the development of the Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5), Proposed hedgerows on either side of the road corridor, would provide connectivity from south to north. In addition to this, extensions of existing woodland blocks have been proposed, providing connectivity between smaller fragmented woodland.</p> |
| Northumberland County and National Park Joint Structure Plan (February 2005) (Ref. 7.24) | | |
| Saved Policy S5 | Saved Policy S5 identifies the general extent of an extension to the Green Belt in Northumberland. | As noted previously, Part A, is located within the area identified as Green Belt Extension. Part A has been identified as being inappropriate development in terms of the NPPF and joint structure plan policy and potentially causing harm to the Green Belt and a case of very special circumstances has been outlined within the Case for the Scheme (Application Document Reference: TR010041/APP/7.1) . |
| Morpeth Neighbourhood Plan (May 2016) (Ref. 7.26) | | |
| Policy Env1 – Landscape and Wildlife Corridors | <p>Landscape and wildlife corridors defined on the Proposals Map would be protected from development, other than that required to maintain, enhance or interpret their landscape or wildlife purposes.</p> <p>Where Landscape or Wildlife Corridors are disrupted as an unavoidable consequence of adjacent or nearby development, developers would be required to minimise the impact and to carry out remedial action in accordance with a Scheme that shall be secured by way of planning condition or planning obligation as appropriate.</p> | As identified above, landscape integration and connectivity to the wider environment has played a key part in the Landscape Mitigation Masterplan (Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)). Proposed hedgerows on either side of the road corridor would provide connectivity from south to north. In addition to this, the extension of existing woodland blocks has been proposed, providing connectivity between smaller fragmented woodland blocks. Where important habitat would be removed as a result of Part A, appropriate replacement habitat would be provided of equal or better quality than that lost. This is particularly relevant to linear features within the landscape providing connectivity, such as hedgerows, where fragmented and species poor hedgerows would be replaced with a more species rich alternative. |
| Northumberland Local Plan: Draft Plan for Consultation (January 2019) (Ref. 7.20) | | |
| Policy STP 1 Spatial Strategy (Strategic Policy) | To deliver sustainable development which enhances the vitality of communities across Northumberland, supports economic growth, and which respects the County's unique environment assets: | The baseline assessment, as described within this LVIA, identifies those unique environmental assets of relevance to those topics covered within this chapter, which require consideration when identifying potential effects posed by Part A. |
| Policy STP 2 Presumption in favour of sustainable development (Strategic Policy) | This policy promotes a presumption in favour of sustainable development. | Refer to Policy STP 3 below. |

| Policy | Planning Policy Objective | Significance Part A on Policy Objective |
|---|--|---|
| <p>Policy STP 3 Principles of sustainable development (Strategic Policy)</p> | <p>Expanding on Policy STP 2, this policy sets out principles for sustainable development, those relevant to landscape and visual issues include to:</p> <ul style="list-style-type: none"> - “Contribute to the conservation and enhancement of Northumberland's natural, historic, water and built environment assets, and contribute to increasing the natural capital resource”; - “Minimise their impact upon local amenity for new or existing residents and businesses, adjoining premises and land uses; - “Demonstrate high quality sustainable design which is accessible to all, and which respects and enhances the local distinctiveness of the natural, historic and built environment, helps promote a sense of place, reduces the need for energy, and facilitates flexible and adaptable buildings and environments; - “Anticipated impacts, including those from climate change, on the historic and natural environment, including landscape, biodiversity, ecosystems and water resources should be avoided by locating development elsewhere, adequately mitigated, or as a last resort, adequately compensated for.” | <p>Where feasible, Part A has looked to enhance those landscape elements retained and to provide connectivity to severed habitats providing wildlife corridors through the inclusion of linear features, principally species rich native hedgerows. Where appropriate, existing vegetation would be retained with replacement landscape elements being proposed of equal or better quality where vegetation would be lost. Proposed species mixes are in keeping with species mixes found locally in accordance with biodiversity recommendations, Refer to Chapter 9: Biodiversity of this ES. Landscape mitigation measures are described in Section 7.9 of this chapter.</p> |
| <p>Policy STP 4 Climate change mitigation and adaptation (Strategic Policy)</p> | <p>This policy provides considerations for development proposals to mitigate climate change, landscape and visual considerations, including to:</p> <ul style="list-style-type: none"> - “Incorporate multi-functional green infrastructure, which can provide carbon storage and provide environments that encourage walking and cycling; - Protect and enhance habitats that provide important carbon sinks, including peat habitats and woodland; - Incorporate design features to ensure that they provide resilience to climate change; - Are designed to reduce demand on water resources; - Incorporate the use of sustainable drainage systems, to minimise and control surface water run-off; and - Incorporate, where feasible, multi-functional green infrastructure, which can help species adapt to climate change through preventing fragmentation or isolation of habitats, reduce the heating of the urban environment, and manage flooding.” | <p>The landscape mitigation design, and in particular the location of woodland and tree planting, has been informed by recommendations from relevant specialists including ecology. Refer to Landscape Mitigation Plan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).</p> |
| <p>Policy STP 5 Health and wellbeing (Strategic Policy)</p> | <p>This policy sets out the Council's aims to improve health and wellbeing of the public, those relevant to landscape and visual issues and Part A are:</p> <ul style="list-style-type: none"> - “Safe, comfortable, inclusive and attractive and prioritise pedestrian and cycle movement; - Include appropriate green and blue infrastructure wherever possible, responding to opportunities to contribute positively towards urban greening; - Designed to promote and facilitate physical activity, and healthy lifestyles; and | <p>The Landscape Mitigation Masterplan has been developed in consultation with local residents and has incorporated environmental measures (refer to Policy STP 4) to create a Scheme, which responds positively to the local environment (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).</p> <p>The movement of walkers, cyclists and horse riders (WCH) is considered in Chapter 12: Population and Human Health of this ES.</p> |

| Policy | Planning Policy Objective | Significance Part A on Policy Objective |
|--|--|---|
| | <ul style="list-style-type: none"> - Prevent negative impacts on amenity.” | |
| Policy STP 6 Green Infrastructure (Strategic Policy) | This policy promotes the protection, retention and enhancement of Northumberland’s green infrastructure; this policy states that developments should: <ul style="list-style-type: none"> - <i>“Protect and enhance strategic and/or local green infrastructure assets, provide high quality links between existing assets including links with green infrastructure networks in adjacent authority areas and/or provide additional uses for multi-functionality;</i> - <i>Secure improved access to green infrastructure, including rights of way, the network of cycle routes and high-quality provision for the widest possible range of ages, abilities and interests where this would not have an unjustified adverse effect on biodiversity and environmental and heritage assets;</i> - <i>Secure net-gains for biodiversity through the protection, creation and enhancement of coherent ecological networks;</i> - <i>Improve the potential green infrastructure to support economic growth and sustainable tourism without adverse effects on environmental and heritage assets;</i> - <i>Create a sense of place by fully integrating high quality, green infrastructure into the plan or proposal design to reflect locally distinctive character having regard to rural and urban character, open space, connective corridors and links with the wider countryside; and</i> - <i>Integrate green infrastructure with sustainable drainage and the management of flood risk.”</i> | Where feasible, the Part A has looked to enhance those landscape elements retained and to provide connectivity to severed habitats providing wildlife corridors through the inclusion of linear features, principally species rich native hedgerows. Where appropriate, existing vegetation would be retained with replacement landscape elements being proposed of equal or better quality where vegetation would be lost. Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5) has been developed alongside ecological and arboricultural recommendations set out in Chapter 9: Biodiversity of this ES and Appendix 7.5: Arboricultural Report, Volume 7 of this ES (Application Document Reference: TR010041/APP/6.7). |
| Policy STP 7 Strategic Approach to the Green Belt (Strategic policy) | Sets out the strategic approach and purpose to Green Belt, and its purpose in preserving openness, and the need for very special circumstances to exist for inappropriate development to be permitted. | Part A would, with the exception of the offline section, be an alteration to and an extension of an existing feature found to be present within the Green Belt Extension Area. However, the proposed offline section is considered to be inappropriate development in terms of the NPPF and local plan policy in this instance. Further discussion on the Green Belt and the very special circumstance is within the Case for the Scheme (Application Document Reference: TR010041/APP/7.1) . |
| Policy STP 8 Development in the Green Belt (Strategic Policy) | Development that is inappropriate in the Green Belt, in accordance with national planning policy, would not be permitted unless very special circumstances clearly outweigh the potential harm to the Green Belt; | Part A would, with the exception of the offline section, be an alteration to and an extension of an existing feature found to be present within the Green Belt Extension Area. However, the proposed offline section is considered to be inappropriate development in terms of the NPPF and local plan policy in this instance. Further discussion on the Green Belt and the very special circumstance is within the Case for the Scheme (Application Document Reference: TR010041/APP/7.1) . |
| Policy QOP 1 Design principles (Strategic Policy) | This policy sets out design considerations for new development with Northumberland, including that the development: | A review of the existing landscape character has been carried out to identify those features that contribute to the current sense of place. This has been used to develop the proposed Landscape Mitigation Masterplan (Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application |

| Policy | Planning Policy Objective | Significance Part A on Policy Objective |
|---|--|---|
| | <ul style="list-style-type: none"> - “Makes a positive contribution to local character and distinctiveness and contributes to a positive relationship between built and natural features, including landform and topography; - Creates or contributes to a strong sense of place and integrates the built form of the development with the site overall, and the wider local area; - Incorporates high quality aesthetics, materials and detailing; - Respects and enhances the natural and built environment, including heritage, environmental and ecological assets, and any significant views or landscape setting; - Good design and amenity; - Protects general amenity; - Incorporates, where possible, green infrastructure and opportunities to support wildlife, and contributes to net environmental gains, including for biodiversity; and - Responds to the climatic conditions of the location and avoids creation of adverse local climatic conditions.” | <p>Document Reference: TR010041/APP/6.5)), reinstating landscape elements in keeping with the existing environment and climatic conditions.</p> <p>The design has been developed to reduce impacts on landscape and develop mitigation and enhancement measures in keeping with the existing setting. Species selection have been considered in line with ecologist and arboriculturalist recommendations set out in Chapter 8: Cultural Heritage, Chapter 9: Biodiversity, Chapter 10: Road Drainage and the Water Environment of this ES and Appendix 7.5: Arboricultural Report, Volume 7 of this ES (Application Document Reference: TR010041/APP/6.7).</p> |
| <p>Policy QOP 2 Good design and amenity</p> | <p>This policy states that “Development will be required to provide a high standard of amenity for existing and future users of the development itself and preserve the amenity of those living in, working in or visiting the local area.”</p> | <p>Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5) illustrates the planting proposals for Part A. The proposals have been developed in consultation with local residents and incorporate environmental measures (refer to Policy STP 4) to ensure they relate to the existing sense of place.</p> |
| <p>Policy QOP 4 Landscaping and trees</p> | <p>This policy provides guidance for soft landscaping within new development, including:</p> <ul style="list-style-type: none"> - “Existing features which contribute towards the character of the area, or amenity, are retained wherever possible and sympathetically incorporated into the overall design of the scheme; - Any hard or soft landscaping is appropriate, functional and well-integrated into the design of the development; - Trees, and other spaces and features that provide green and blue infrastructure, are preserved, enhanced and introduced into the landscaping scheme wherever possible; - There is no loss of existing trees which are valuable in terms of amenity, biodiversity or the landscape; - Any tree lost is replaced on-site or at a suitable location in the local area; - Any protected vegetation, including trees within Conservation Areas, trees with TPOs, protected habitats and important hedgerows, are preserved in accordance with the relevant national legislation, policy and guidance; - Planting schemes are compatible and appropriate to the site and its use; - species that may damage other vegetation or wildlife should be avoided; - There will be no unacceptable damage to vegetation which is to be retained as part of the landscaping scheme during construction; and | <p>Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5) illustrates the planting proposals for Part A. The proposals have been developed in consultation with local residents and incorporate environmental measures (refer to Policy STP 4) to ensure they relate to the existing sense of place. Anticipated tree loss and existing habitats are set out in Chapter 9: Biodiversity of this ES, Figure 7.9: Vegetation Clearance Plans, Volume 5 of this ES and Appendix 7.5: Arboricultural Report, Volume 7 of this ES (Application Document Reference: TR010041/APP/6.7) and species selection have been considered in line with ecological and arboricultural recommendations.</p> |

| Policy | Planning Policy Objective | Significance Part A on Policy Objective |
|--|--|--|
| | <ul style="list-style-type: none"> - Provision is made for the long-term maintenance of new landscaped areas.” | |
| Policy ENV 1 Approaches to assessing the impact of development on the natural, historic and built environment: | The character and significance of Northumberland’s distinctive and valued natural, historic and built environments, would be conserved, protected and enhanced by appropriate weight being assigned to the special qualities of the hierarchy of designated and non-designated sites, and applying an ecosystem approach that demonstrates an understanding of the significance and sensitivity of the natural resource. Such an approach should result in a neutral impact on, or net benefit for those ecosystems. | Consideration has been given to the avoidance of impacts on landscape and visual receptors where appropriate through the design approach and development of mitigation. This is demonstrated on Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5) which illustrates the planting proposals for Part A and described in Section 7.9 of this chapter. |
| Policy ENV 3 Landscape | Development proposals should consider, conserve and enhance landscape character in accordance with Northumberland Landscape Character Assessment. | In establishing the baseline, reference has been made to current published landscape character studies of the affected area, as set out at paragraph 7.7.26 of this chapter. Of those elements that contribute to sense of place, it is considered that Coronation Avenue would be most affected by Part A. As part of the mitigation proposal associated with Part A it is proposed that replacement trees would be replanted with trees of advanced nursery stock sizes at the time of planting, in order to better integrate the replacement plant stock with that of the existing. |
| Policy ENV 4 Tranquillity, dark skies and a sense of rurality. | In order to limit the urbanising effects on open countryside landscapes, natural habitats and to conserve or enhance tranquillity, development proposals would be required to demonstrate: <ul style="list-style-type: none"> - The level of noise, traffic and light generated as a result of the development during construction and thereafter are minimised and dark skies maintained. - Intrusive external features, such as hard surfaces, car parking and urban-style boundary treatments are minimised. - Where a sense of openness of the open countryside is a key quality of the local landscape character, that this would not be reduced. - The quiet enjoyment of the landscape is maintained. | With the exception of the replacement of lighting columns at West View, and the temporary light pollution from the construction compounds (and potentially short-term safety lighting of some work areas) when it is dark during working hours, there is no lighting proposed for Part A, thereby retaining the current night time situation. Intrusive external features including laybys and urban style boundary treatments would be kept to a minimum, with hedgerows being favoured as the primary boundary treatment, where space allows. Urban-style fencing would be minimised due to the rural nature of Part A, however, barriers are incorporated to provide mitigation for noise in some locations. Screen planting has been restricted to around new junctions, earthworks and detention basins to create screen planting for residential properties. Some areas are identified for specific ecological mitigation and compensation, including barn owls and ancient woodland replacement. As a result of the offline section, there would be a perceived reduction in the sense of openness, particularly where proposed junctions would be elevated within the landscape. Mitigation has been developed and proposed to reduce the visual impact of Part A on the sense of openness, although some reduction is anticipated to remain. The effects on historic and cultural assets are set out in Chapter 8: Cultural Heritage of this ES. |
| Policy ENV 7 Historic environment and heritage assets | Development proposals should consider, conserve and enhance heritage assets and their settings. | Effects on heritage assets and their setting is provided in Chapter 8: Cultural Heritage of this ES. |

- 7.3.31. Compliance with planning policy is addressed further in the **Case for the Scheme (Application Document Reference: TR010041/APP/7.1)** and National Policy Statement for National Networks (NPS NN) Accordance Table (**Application Document Reference: TR010041/APP/7.2**).

Supplementary Planning Documents and Guidance

- 7.3.32. The Alnwick Landscape Character Assessment SPD (**Ref. 7.5**) has been considered as part of establishing the landscape character and visual amenity baseline. This SPD is considered in more detail at **paragraph 7.7.26** of this chapter.
- 7.3.33. In 2009, following the formation of the unitary council, a Northumberland-wide Landscape Character Assessment was prepared superseding all former assessments at a district level. Whilst the Northumberland Landscape Character Assessment (published 2010) (**Ref. 7.4**) replaces former district level assessments including the former 2006 joint Alnwick and Castle Morpeth assessment, an independent assessment for Alnwick took place over the same time period. As such the latter, 'SPD Alnwick Landscape Character Assessment' (**Ref. 7.5**) which was also adopted in 2010, remains a material consideration.
- 7.3.34. Following the withdrawal of the draft Northumberland Core Strategy from the examination process on 7 July 2017, the draft local plan and all documents relating to it, which includes the Northumberland Landscape Character Assessment, have been removed. However, information in these documents may remain relevant in the context of planning applications to inform decisions until such time as the documents are updated or replaced as a new Local Plan emerges.

7.4. ASSESSMENT METHODOLOGY

SCOPE OF ASSESSMENT

- 7.4.1. This section sets out the scope of the assessment which has been determined via the **Scoping Report (Application Document Reference: TR010041/APP/6.10)** and **Scoping Opinion (Application Document Reference: TR010041/APP/6.12)**.
- 7.4.2. **Appendix 4.1: Scoping Opinion Response Tracker, Volume 1** of this ES (**Application Document Reference: TR010041/APP/6.1**) provides a summary of the Scoping Opinion comments received from the Planning Inspectorate, which have informed the scope, methodology and assessment in this chapter.
- 7.4.3. The LVIA assesses two related topics during construction and operation:
- a.** Landscapes: they are an important component of the distinctiveness of any local area; they take their character from a combination of elements, including landform, land use and pattern, land cover/vegetation, open space and cultural heritage influences.
 - b.** Visual amenity: a view, its components and context can have a great effect on the quality of peoples' lives.
- 7.4.4. The scope of the assessment is based on the following timescales:

- a. 2018 is the baseline year.
- b. 2024 would be the opening year when Part A is in operation (Year 1).
- c. 2039 would be the design year (Year 15).

GUIDANCE

- 7.4.5. The following guidance documents have been used during the preparation of this chapter:
- a. Design Manual for Roads and Bridges (DMRB), Interim Advice Note (IAN) 135/10 Landscape and Visual Effects Assessment (**Ref. 7.28**).
 - b. Guidelines for Landscape and Visual Impact Assessment (Third Edition) (GLVIA3) (2013) (**Ref. 7.29**).
 - c. Natural England's, An Approach to Landscape Character Assessment (October 2014) (**Ref. 7.7**).
- 7.4.6. Where required, accompanying photography follows guidance as outlined within industry best practise guidance including:
- a. The Landscape Institute, Technical Guidance Note 02/17 Visual Representation of Development Proposals (March 2017) (**Ref. 7.1**).
 - b. The Landscape Institute, Advice Note 1/11 Advice on Photography and Photomontage (amended 2013) (**Ref. 7.30**).
- 7.4.7. The methodology has been informed by the guidance provided in IAN 135/10 (**Ref. 7.28**) and supported and updated as appropriate by GLVIA3 (**Ref. 7.29**), in particular where the latter places greater emphasis on professional judgement in the explanation and justification for assessment criteria and conclusions, appropriate to Part A being assessed. Throughout this chapter narrative has been provided to describe where professional judgement has been used.

Updated DMRB Guidance

- 7.4.8. Since the assessments reported in this ES were completed, a number of DMRB guidance documents have been superseded and replaced with revised guidance. For the Landscape and Visual Assessment, the following guidance documents, which were used in the preparation of this assessment, have been superseded:
- a. DMRB IAN 135/10 Landscape and Visual Effects Assessment (**Ref. 7.28**), which has been replaced by DMRB LA 107 Landscape and Visual Revision 2 (**Ref. 7.31**), which was released in February 2020.
 - b. DMRB Manual of Contract Documents for Highway Works Volume 10 Environmental Design and Management – Environment Objectives – Part 3 88/01 Landscape Elements (**Ref. 7.32**), which has been replaced by DMRB LD 117 Landscape Design (**Ref. 7.33**). The information presented within the old guidance remains relevant, although less detail is presented in the updated guidance.
- 7.4.9. In order to determine the implications of the updated guidance to the conclusions of the ES, a sensitivity test has been undertaken to identify key changes in the assessment

methodology and determine whether there would be changes to the significant effects reported in this ES if the updated guidance had been used for the assessment.

7.4.10. The findings of the sensitivity test are presented in Appendix 4.5: DMRB Sensitivity Test, Volume 1 of this ES (Application Document Reference: TR010041/APP/6.1) and are summarised in Section 7.10 below.

CONSULTATION

7.4.11. **Table 7-4** below provides a summary of the consultation undertaken in support of the preparation of this chapter. Further information is available in **Appendix 4.2: Environmental Consultation, Volume 1** of this ES (**Application Document Reference: TR010041/APP/6.1**).

Table 7-4 – Summary of Consultation

| Consultee | Date and Type of Consultation | Summary of Consultation Response | Action |
|--|--|--|--|
| Northumberland National Park Authority | 8 March 2018 – Email 4 April 2018 - Email | Request to resend email, due to link within original email had expired by time of review. – no further comments received. | N/A |
| Specialist Planning Services – Northumberland County Council | 7 March 2018 – Representative Viewpoint Locations – Email 20 March 2018 – Phone conversation 24 April 2018 – Night time assessment 16 August 2018 - Photomontages | Initial comments received 6 April 2018. Request for onsite walkover to discuss viewpoint locations, and provision of photomontages at 8 representative viewpoint locations. Night time photographs omitted from assessment – assessment limited to written descriptive assessment only. Revised proposed locations of photomontages on grounds of health and safety – working adjacent to live carriageways. | Site meeting held on 18 April 2018. 1 May 2018 – revised plan issued showing revised locations of representative viewpoint locations Conformation of approach agreed in writing 30 April 2018. Production of photomontages within the ES at agreed locations. |

| Consultee | Date and Type of Consultation | Summary of Consultation Response | Action |
|------------------|--|---|---|
| AONB Officer | 7 March 2018 - Email | Confirmation that no further consultation is required due to the distance in separation between the Scheme and Northumberland Coast AONB. | N/A |
| Historic England | 8 March 2018 - Email | Correspondence received on 22 March 2018. Request seek guidance from Landscape officers within NCC, who would have a better understanding of the local area. – request that impacts upon grade II* Bockenfield Farmhouse be included. | Impacts relating to grade II* Bockenfield Farmhouse included within residential receptors VES. |
| Natural England | 7 March 2018 – Email – Representative viewpoint locations March 2019 – preliminary landscape mitigation plans | Confirmation that NE have no comments to make on the potential viewpoints proposed due to the proposed route having no impact on any areas designated at a national level for their landscape value in this instance. The Natural England representative stated that inclusion of Scots pine would be acceptable and encouraged and recommended that created woodlands are not over planted because they would prefer to see open woodland. They also confirmed that tree protection (individual guards/rabbit fencing) would need to be removed at the end of the establishment | N/A – relating to representative viewpoint locations Points have been noted and would be picked up during detailed design. |

| Consultee | Date and Type of Consultation | Summary of Consultation Response | Action |
|-----------|-------------------------------|---|--------|
| | | period. Refer to Chapter 9: Biodiversity of this ES. | |

METHODS OF BASELINE DATA COLLECTION

Desk Study

- 7.4.12. A desk-based review of existing information including planning documents, character assessments, aerial photographs and Ordnance Survey data was undertaken to determine landscape pattern, existing landscape features and landscape character.

Zone of Theoretical Visibility

- 7.4.13. The ZTV shows the area within which there may theoretically be views of Part A, refer to **Figure 7.3: Zone of Theoretical Visibility, Volume 5** of this ES (**Application Document Reference: TR010041/APP/6.5**).
- 7.4.14. The ZTV has been computer generated using OS Terrain 5 digital terrain model (DTM), with an observer height of 1.5 m. It shows the extent of theoretical visibility of a line 4.5 m above Part A centreline (to allow for views of high-sided vehicles) and of the high points of the proposed junctions and Causey Park Overbridge.
- 7.4.15. The ZTV is described as ‘theoretical’ because it is based on computer modelling, using a digital terrain model. It is called ‘bare ground’ because it only considers a bare earth scenario, it does not allow for any above-ground elements (woodland, hedges and individual trees, buildings, fences and walls) that may block or filter views.
- 7.4.16. The inclusion of an area within the ZTV is not an indicator that all receptors in this area would experience views of Part A, but rather establishes the area from where there would theoretically be a view in the absence of any above-ground features. Many views from potential receptors within the ZTV, particularly more distant ones, would be screened or filtered by features such as buildings and walls, hedgerows, copses and woodland. The ZTV is based on a computer-generated DTM; there may also be localised variations in landform not covered by the model. There may therefore be limited locations out of the ZTV from which there is a view of Part A.

Field Visit

- 7.4.17. The extents of the computer generated ZTV were walked and reviewed on Site to understand the likely extent of actual visibility. This took into account features affecting visibility such as built form and vegetation which would potentially filter or screen views. This analysis determined the visibility of Part A and allowed the identification of visual receptors and the refinement of the proposed Study Area as shown on **Figure 7.4: Viewpoint**

Location Plan, Volume 5 of this ES (Application Document Reference: TR010041 /APP/6.5).

- 7.4.18. A site visit was conducted in early 2018 in order to document the viewpoints and individual receptors, using the methodology described below. A further site visit with NCC planning officers was also conducted in April 2018 to verify the viewpoint locations in the field.

Photography

- 7.4.19. All the viewpoint locations were noted, and photographs of each view taken. Photographs were taken using a Nikon D3200 digital camera with a 35 mm lens¹.
- 7.4.20. The photographs were combined into panoramas using 'Photoshop CS6' software and for each receptor the key features of the existing view were described. Viewpoints are shown on an OS plan as illustrated on **Figure 7.4: Viewpoint Location Plan, Volume 5 of this ES (Application Document Reference: TR010041 /APP/6.5)**.

DATA SOURCES

- 7.4.21. The following data sources were used to inform this assessment:
- a.** Northumberland Consolidated Planning Policy Framework and saved policy documents from the previous authorities:
 - i.** Alnwick Landscape Character Assessment Supplementary Planning Document (SPD) (**Ref. 7.5**)
 - ii.** Alnwick District Wide Local Plan (**Ref. 7.22**)
 - iii.** Alnwick District Local Development Framework (LDF) Core Strategy (**Ref. 7.21**)
 - b.** National Character Areas, Natural England
 - i.** NCA 1 North Northumberland Coastal Plain, (**Ref. 7.33**)
 - ii.** NCA 2 Northumberland Sandstone Hills (**Ref. 7.34**)
 - iii.** NCA 12 Mid Northumberland (**Ref. 7.35**)
 - iv.** NCA 13 South East Northumberland Coastal Plain (**Ref. 7.36**)
 - c.** Northumberland Landscape Character Assessment; Part A Landscape Classification (**Ref. 7.4**).

¹ 'normal' or 'standard' lens, equivalent to a 'full frame' camera with a 50 mm lens, considered to give an image close to that perceived by the human eye.

METHODOLOGY

Stages in the Assessment Process

- 7.4.22. There are four key stages (derived from IAN135/10 and GLVIA3) when carrying out assessments on the effects of landscape character and visual amenity. These are listed below:
- a. Stage 1:** Assessment of the existing situation (environmental baseline), analysing the existing landscape and visual context of the receiving environment, within the defined Study Area. This is done to understand the sensitivity of the identified receptors.
 - b. Stage 2:** Identify potential impacts associated with Part A, including mitigation measures incorporated as part of the design during all stages of development (construction and operational), and assigning a magnitude of impact to identified changes to landscape character and visual amenity.
 - c. Stage 3:** Identify the need for any further mitigation measures where the assessment identifies potentially significant effects.
 - d. Stage 4:** Describe residual impacts (i.e. incorporating additional mitigation) and assess the significance of effect.
- 7.4.23. In assessing the landscape effects, consideration has been given to the way in which Part A would:
- a.** Alter the existing landscape components that form the characteristics of the wider environment e.g. changes to boundaries and patterns, loss of existing trees/woodland, changes to scale and form.
 - b.** Changes to the layout of the local road network which may introduce new elements into the existing landscape setting, e.g. traffic movements, junctions.
 - c.** Changes to the existing land uses that contribute to the local landscape.
 - d.** Introduction of new soft landscape features e.g. replacement hedgerows or boundaries, roadside planting.
- 7.4.24. In assessing the visual effects, consideration has been given to the way in which Part A would change the views available in the Study Area and the effect of those changes on the people who may enjoy those views, including:
- a.** The direct effects of Part A, through intrusion or obstruction in the view.
 - b.** The overall effect on visual amenity, be it degradation or enhancement.
- 7.4.25. The following sections describe in detail the processes of assessing both landscape and visual effects; whilst similar in approach each subject matter has its own set of criteria by which to assess against.
- ### Assessment Criteria for Landscape Effects
- 7.4.26. Landscape effects describe the likely nature and scale of changes (impacts) imposed on a geographical area's character by a scheme. Impacts can be either direct or indirect. The magnitude of the impact relates to the scale of these changes.

- 7.4.27. In accordance with the European Landscape Convention, the term ‘landscape’ applies equally to natural, rural, urban and peri-urban areas. It concerns landscapes that might be considered outstanding, as well as every day, or degraded landscapes.
- 7.4.28. GLVIA 3 describes landscape character as “*A distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from another.*” The following sections review the statutory designations and landscape context to understand the existing landscape features, pattern, grain, scale and their overall contribution to landscape character.
- 7.4.29. Landscape effects are a combination of the physical changes to the fabric of the landscape arising from a scheme. The landscape appraisal considers the effect of a scheme on the landscape in its entirety, effects on individual elements of the landscape, and effects on characteristic combinations or patterns of the elements and how these are seen to affect its character and quality.
- 7.4.30. Landscape sensitivity is derived from the consideration of the value of the landscape and the degree to which the particular element or characteristic can be replaced or substituted. The determination of the sensitivity of the landscape resource is based upon an evaluation of a landscape’s key characteristics that are likely to be affected by a scheme (susceptibility).
- 7.4.31. The significance of effect is determined by considering the sensitivity of the landscape and the magnitude of impact anticipated.
- 7.4.32. The effects of Part A on landscape character vary over time, due to daily changes in light level, seasonal variation and maturing of the mitigation planting. When considering the effects of Part A on the landscape, the following scenarios have been assessed:
- a.** Construction – During the construction phase, assuming a maximum perceived change situation (i.e. when construction activity is at its peak) and noting how long that phase is likely to last.
 - b.** Winter (Year 1) – A winter’s day in the year that the Part A would open to traffic or be fully operational (i.e. with noise/visual screens and bunds in place but before any planted mitigation has begun to take effect). With the leaves off the trees in the wider landscape and no effective mitigation from the planting, this represents the worst-case scenario.
 - c.** Summer (Year 15) – A summer’s day in the fifteenth year after opening, when the planted mitigation measures can be assumed to be substantially effective and trees in the wider landscape provide additional screening. This is usually a reflection of the near fully mitigated scenario under normal conditions.
 - d.** Night time Assessment – To identify the potential impacts of vehicle headlights, particularly associated with Part A junctions and the proposed offline section.

Landscape Quality

- 7.4.33. Quality relates to the intrinsic aesthetic appeal demonstrated by a character area or feature including its condition and contribution to defining an area’s ‘sense of place’.

7.4.34. A five-point scale has been adopted, based on GLVIA3 (Ref. 7.29) and the IAN 135/10 (Ref. 7.28) methodologies, to assist in describing landscape quality as set out in Table 7-5 below.

Table 7-5 - Landscape Quality

| Rating | Criteria |
|-----------------|---|
| Outstanding | Areas comprising a clear composition of valued landscape components in robust form and health, free of disruptive visual detractors and with a strong sense of place. Areas containing a strong, balanced structure with distinct features worthy of conservation. |
| Very Attractive | Areas primarily of valued landscape components combined in an aesthetically pleasing composition and lacking prominent disruptive visual detractors. Areas containing a strong structure with noteworthy features or elements, exhibiting a sense of place. |
| Good | Areas primarily of valued landscape components combined in an aesthetically pleasing composition with low levels of disruptive visual detractors, exhibiting a recognisable landscape structure. |
| Ordinary | Areas containing some features of landscape value but lacking a coherent and aesthetically pleasing composition with frequent detracting visual elements, exhibiting a distinguishable structure often concealed by mixed land uses or development. Such areas would be commonplace at the local level and would generally be undesignated, offering scope for improvement. |
| Poor | Areas lacking valued landscape components or comprising degraded, disturbed or derelict features, lacking any aesthetically pleasing composition with a dominance of visually detracting elements, exhibiting mixed land uses which conceal the baseline structure. Such areas would generally be restricted to the local level and identified as requiring recovery. |

Landscape Value

7.4.35. Value relates to areas of particular scenic quality or those displaying important historic and cultural associations. Landscape value is frequently addressed by reference to international, national, regional and local designations. An absence of a formal designation does not, however, determine that an area is necessarily of low value; factors such as accessibility and local scarcity can render areas of unremarkable quality highly valuable as a local resource.

Susceptibility to Change

- 7.4.36. There is a further consideration when determining sensitivity, which is susceptibility to change. A high quality or high value landscape (highly sensitive) should not, by definition, infer that it has a high susceptibility to future change. Similarly, an area considered to be low quality or value (low sensitivity) does not automatically have a lower susceptibility to change.
- 7.4.37. Within GLVIA3 (**Ref. 7.29 page 88 – 89**) susceptibility is defined as “The ability of the landscape receptor to accommodate the proposed development without undue consequences for the maintenance of the baseline situation and/or the achievement of landscape policies and strategies”. Susceptibility of the landscape to change arising from any development is therefore specific to the type and nature of the proposed development and the changes it would bring about. Susceptibility to change has been described within a three point scale of high – moderate – low and forms an intrinsic part of the assessment of sensitivity as outlined below. The sensitivity, based on quality value and susceptibility, along with the magnitude of impact arising as a result of a proposed development are used in determining significance of effects.

Sensitivity to Change

- 7.4.38. In line with IAN 135/10 Annex 1 Table 2 (**Ref. 7.28**), three orders of landscape sensitivity have been adopted for the purpose of this assessment, as outlined below in **Table 7-6**.

Table 7-6 - Landscape Sensitivity

| Rating | Criteria |
|----------|--|
| High | Landscapes which by nature of their character would be unable to accommodate change of the type proposed. Typically, these landscapes would be: <ul style="list-style-type: none"> - Of high quality (very attractive or outstanding) with distinctive elements and features making a positive contribution to character and sense of place. - Likely to be designated, but the aspects which underpin such value may also be present outside designated areas, especially at the local scale. - Areas of special recognised value through use, perception or historic and cultural associations. - Likely to contain features and elements that are rare and could not be replaced. |
| Moderate | Landscapes which by nature of their character would be able to partly accommodate change of the type proposed. Typically, these landscapes would be: |

| Rating | Criteria |
|--------|---|
| | <ul style="list-style-type: none"> - Comprised of commonplace elements and features creating generally unremarkable character but with some sense of place (good quality). - Locally designated, or their value may be expressed through non-statutory local publications. - Containing some features of value through use, perception or historic and cultural associations. - Likely to contain some features and elements that could not be replaced. |
| Low | <p>Landscapes which by nature of their character would be able to accommodate change of the type proposed. Typically, these landscapes would be:</p> <ul style="list-style-type: none"> - Comprised of some features and elements that are discordant, derelict or in decline, resulting in indistinct character with little or no sense of place (ordinary or poor quality). - Not designated. - Containing few, if any, features of value through use, perception or historic and cultural associations. - Likely to contain few, if any, features and elements that could not be replaced. |

Magnitude of Impact

7.4.39. The magnitude of impact is determined through a process of quantification, such as loss of and severance or modification to key landscape components (woodland, hedgerows, boundaries landform, and culturally significant structures) and evaluation of the extent to which Part A would emerge as a new component in the landscape setting or change the balance between components that currently constitute baseline character. An impact can be either adverse or beneficial. The criteria used to determine the magnitude of impact is listed below within **Table 7-7**, adapted from IAN 135/10 Annex 1 Table 1 (**Ref. 7.28**).

Table 7-7 - Landscape Magnitude of Impact

| Rating | Criteria |
|--------|--|
| Major | <p>Total loss or large-scale damage to existing character or distinctive features and elements, and/or the addition of new but uncharacteristic conspicuous features and elements;</p> <p>or</p> |

| Rating | Criteria |
|------------|--|
| | Large scale improvement of character by the restoration of features and elements, and/or the removal of uncharacteristic and conspicuous features and elements, or by the addition of new distinctive features. |
| Moderate | Partial loss or noticeable damage to existing character or distinctive features and elements, and/or the addition of new but uncharacteristic noticeable features and elements; or Partial or noticeable improvement of character by the restoration of existing features and elements and/or the removal of uncharacteristic and noticeable features and elements, or by the addition of new characteristic features. |
| Minor | Slight loss or damage to existing character or feature and elements, and/or the addition of new but uncharacteristic features and elements; or Slight improvement of character by the restoration of existing features and elements, and/or the removal of uncharacteristic features and elements, or by the addition of new characteristic elements. |
| Negligible | Where the development would appear as a barely perceptible component in the landscape and result in very minor alteration to the existing balance of components in the baseline context. |
| No Change | Where the development would have no effect on the components in the landscape resulting in no alteration to the existing balance of components in the baseline context. No noticeable loss, damage or alteration to character or features or elements. |

Assessment Criteria for Visual Effects

- 7.4.40. Visual effects are changes in the composition and character of views available in the area affected by Part A. Visual impact assessment considers the response of the people who experience these effects, who may be living or working in the area, enjoying recreational activities or simply passing through. The assessment considers the overall consequence of the effects on the visual amenity, the pleasantness of the view or outlook that people enjoy.
- 7.4.41. Visual effects relate to changes in available views and how this is perceived by receptors. Changes include:
- a.** The direct effects of Part A on the content and character of view.
 - b.** The overall effect on the change to visual amenity.
- 7.4.42. The evaluation of the significance of the visual effects of Part A is derived by assessing the sensitivity of the receptor against the magnitude of impact on the view.

- 7.4.43. Over time, views within the landscape change, which arises due to seasonal variation, changes in light level, human intervention and variation between night and day. With respect of this, and in accordance with IAN 135/10, when considering the impacts of Part A (magnitude of impact) upon the respective views the following scenarios would be assessed:
- a. Construction**– During the construction phase, assuming a maximum perceived change situation (i.e. when construction activity is at its peak for any given view) and noting how long that phase is likely to last.
 - b. Winter (year 1)** – A winter’s day in the year that Part A would open to traffic or be fully operational (i.e. with noise/visual screens and bunds in place but before any planted mitigation has begun to take effect).
 - c. Summer (year 15)** – A summer’s day in the fifteenth year after opening (i.e. when the planted mitigation measures can be assumed to be substantially effective). This is usually a reflection of the near fully mitigated scenario under normal conditions.
 - d. Night time Assessment**, in order to identify the potential impacts of vehicle headlights, particularly associated with Part A junctions and the proposed offline section.
- 7.4.44. The assessment assumes that the visual context applicable at the year of opening is that which would be experienced during the winter months when the degree of visual exposure is potentially greatest, due to a lack of foliage within the wider landscape and prior to the establishment of mitigation planting, representing a worst-case scenario. The analysis at 15 years into operation demonstrates the effectiveness following maturation of any landscape and mitigation proposals for Part A. The analysis relates to each visual receptor and concludes with an evaluation of the significance of effect.
- 7.4.45. The following methodology has been developed in line with current best practice guidance (refer to **Section 7.3**) in order to best describe the impacts imposed by Part A upon the visual amenity of the Study Area.
- Viewpoint Locations**
- 7.4.46. Viewpoints have been selected to represent the nature and type of visual amenity from a given area or direction of view. They are not offered as the ‘only view’ but are used to inform a greater understanding of the extent of visibility and the nature of change.
- 7.4.47. For the purpose of this assessment, and in agreement with NCC, those viewpoints proposed to be representative of the range of visual receptor types found within the visual effects Study Area are shown on **Figure 7.4: Viewpoint Location Plan, Volume 5** of this ES (**Application Document Reference: TR010041/APP/6.5**). It was agreed that 39 representative viewpoint locations would be assessed in order to identify the range of receptors likely to be affected by Part A.
- 7.4.48. All representative photographs to accompany the assessment were taken during clear sunny conditions, when the horizon was not adversely obstructed by adverse weather. The

height of the camera lens above ground level was approximately 1.5 m in accordance with industry best practice guidance.

7.4.49. GLVIA3 page 109, paragraph 6.19 (**Ref. 7.29**) recognises three types of viewpoint:

- a. Representative:** “selected to represent the experience of different types of visual receptor, where large numbers of viewpoints cannot all be included individually and where significant effects are unlikely to differ – for example, certain points may be chosen to represent the views of users of particular public footpaths and bridleways”.
- b. Specific:** “chosen because these are key and sometimes promoted viewpoints within the landscape, including for example specific local visitor attraction, viewpoints in areas of particularly noteworthy visual and/or recreational amenity such as landscapes with statutory landscape designations, or viewpoints with particular cultural landscape associations”.
- c. Illustrative:** “chosen specifically to demonstrate a particular effect or specific issues, which might, for example, be the restricted visibility at certain locations”.

7.4.50. The frequency, range and duration of the view, may however, vary. In many cases, the viewpoints selected are representative of more than one type of receptor, and these elements (particularly duration of view) would vary depending on whether the receptor is static (such as a resident) or moving (such a road or public right of way user).

7.4.51. By definition of the ZTV, views beyond its extent should not be possible given the nature, location and scale of Part A.

Visual Effects Schedules

7.4.52. Visual Effect Schedules have been prepared for different receptor groups (residential properties, PRow, commercial and community facilities) located within the detailed visual study within 1 km of the main centreline of Part A. These are shown on the Visual Effects Drawings **Figure 7.6: Visual Effects Drawing Residential Properties** and **Figure 7.7: Visual Effects Drawing PRow, Volume 5** of this ES (**Application Document Reference: TR010041/APP/6.5**). Where properties have similar views and the effects on them are comparable, they have been grouped together.

7.4.53. In addition to the above, individual assessments on nearby commercial properties and community facilities have been carried out on those properties listed below, which are located within 1 km of the main centreline of Part A:

- a.** Eshott Airfield.
- b.** Northgate hospital.
- c.** The shooting ground at Bywell.
- d.** Northumberland Country Zoo.
- e.** Tritlington Church of England First School.
- f.** Heighley Gate Garden Centre.
- g.** Burgham Park Golf Course.
- h.** Bockenfield Holiday Park.

i. Jackson G K and Sons garage.

Visual Sensitivity

- 7.4.54. As noted in GLVIA3, visual sensitivity is a function of the susceptibility of the different visual receptors to changes in the view and the value attached to particular views. This in turn is dependent upon a number of factors including the viewer’s activity, their reasons for being there, and their expectations and the duration of view.
- 7.4.55. Certain views are highly valued for either their cultural or historical associations, which can increase the sensitivity of the viewer. However, whilst a valued view may serve to increase the overall visual receptor sensitivity, a low value would not necessarily reduce sensitivity.
- 7.4.56. Least sensitive receptors are considered, for example, to be people engaged in work whose primary focus would not necessarily be on the surrounding landscape views. Conversely, more emphasis is placed upon receptors whose change in view or visual amenity is either the prime focus, or potentially covers a wider area.
- 7.4.57. **Table 7-8** below sets out criteria for the judgement of visual sensitivity that has been used in the visual assessment. The proposed sensitivity criteria have drawn upon that presented within IAN 135/10 (**Ref. 7.28**) and takes account of guidance as presented within GLVIA3 (**Ref. 7.29**) (which supersedes IAN 135/10 given its date of publication). It is considered that the criteria set out below are appropriate to the existing situation, and the scale and nature of Part A.

Table 7-8 - Visual Sensitivity

| Rating | Criteria |
|----------|--|
| High | <ul style="list-style-type: none"> - Residents at home (views from principal aspects) and communities or settlements where views are an important contribution to the landscape setting. - People enjoying outdoor recreation where the view is important to the experience e.g. users of long-distance trails and scenic public rights of way and cycle routes, walkers on National Trust or other access land, and visitors to Country Parks. - Visitors to recognised attractions where views of the surroundings are an important contributor to the experience. - Users of scenic roads, railways or waterways identified as designated tourist routes. |
| Moderate | <ul style="list-style-type: none"> - People enjoying outdoor recreation where the view is secondary to the activity (e.g. people playing outdoor sports, users of PRow where the main activity is exercise or getting from A to B). - Schools and other institutional buildings, and their outdoor areas. - Users of local roads and rail passengers (where views form an intrinsic part of the experience except where noted above). |

| Rating | Criteria |
|--------|--|
| | <ul style="list-style-type: none"> - People at work and commercial premises where the view is an important contribution to the quality of the workplace (e.g. certain business parks, hotels and restaurants designed to take advantage of a scenic setting). |
| Low | <ul style="list-style-type: none"> - People at work and commercial premises, except where noted above, where work activities are undertaken. - Users of recreational facilities where the purpose of that recreation is not related to the view (e.g. indoor sports facilities, football pitches and stadia). - Users of trunk roads and main railway routes where highly transient views are afforded. |

Magnitude of Visual Impact

7.4.58. Magnitude of impact considers the scale and nature of change within the view, taking into consideration the duration of change, the distance of the receptor from Part A, the direction of view, the receptors speed of movement, screening (both proposed or removal of existing vegetation) and embedded mitigation measures included as part of the design. During the assessment, consideration has been given to whether there is a need for further mitigation measures intended to further avoid, reduce or where possible reverse those impacts caused by Part A. The scale of magnitude used for carrying out the visual assessment is based on the Table 2 of Annex 2 within IAN 135/10 (Ref. 7.28), reproduced below as **Table 7-9**.

Table 7-9 - Magnitude of Visual Impact

| Rating | Criteria |
|------------|--|
| Major | The Project, or a part of it, would become the dominant feature or focal point of the view. |
| Moderate | The Project, or a part of it, would form a noticeable feature or element of the view which is readily apparent to the receptor. |
| Minor | The Project, or a part of it, would be perceptible but not alter the overall balance of features and elements that comprise the existing view. |
| Negligible | Only a very small part of the Project work, or activity would be discernible or being at such a distance it would form a barely noticeable feature or element of the view. |
| No Change | No part of the Project, or work or activity associated with it, is discernible. |

SIGNIFICANCE OF EFFECTS

7.4.59. The evaluation of effects involves consideration of the sensitivity to change, derived during the baseline assessment, and the predicted magnitude of the impact that would occur during the construction and subsequent operation of Part A. The predicted effects take into consideration the embedded and additional mitigation measures incorporated as part of the preliminary design of Part A (such as screening bund or agreed specific screen planting or a combination of the two) and the temporal or permanent nature of that change.

Significance of Landscape Effects

7.4.60. An indication of the interactions between sensitivity and magnitude of impact and the likely resulting significance of effects are outlined in **Table 7-10** (IAN 135/10 Annex 1 Table 3) (**Ref. 7.28**) below.

7.4.61. For the purpose of this LVIA, all 'Moderate, Large, and Very Large' landscape effects are considered to be significant (highlighted bold in the table below). All other effects (Neutral to Slight) are considered not to be significant.

Table 7-10 - Significance of Landscape Effects Matrix

| | | Magnitude | | | | |
|-------------|----------|-----------|------------------|-------------------|-------------------------|---------------------------|
| | | No Change | Negligible | Minor | Moderate | Major |
| Sensitivity | High | Neutral | Slight | Slight / Moderate | Moderate / Large | Large / Very Large |
| | Moderate | Neutral | Neutral / Slight | Slight | Moderate | Moderate / Large |
| | Low | Neutral | Neutral / Slight | Neutral / Slight | Slight | Slight / Moderate |

7.4.62. Effects can be either adverse or beneficial. Whilst **Table 7-10** above provides a framework by which to aid consistency in reporting likely effects arising from Part A, professional judgement is applied both in evaluating sensitivity and magnitude and how these are combined to judge significance. Given that the significance criteria major / moderate / minor / negligible / no change represents levels on a continuum or continuous gradation, awareness of the relative balance between sensitivity and magnitude is required. Where there is a choice in the matrix between the levels of effects, further narrative is provided in **Appendix 7.1: Landscape Effects Schedule, Volume 7** of this ES (**Application Document Reference: TR010041/APP/6.7**) to explain the judgement made.

7.4.63. The findings of the assessment are represented using a descriptive, descending scale ranging from large - moderate - slight (adverse) through neutral to an ascending scale of slight - moderate - large (beneficial). There is a further effect rating of very large used to indicate (adverse) effects on a very high-quality landscape or (beneficial) for the creation of iconic, high quality features and /or series of elements. Typically, landscape effects identified as being of moderate adverse or greater are considered to be significant. Explanation of the significance of effect ratings is provided below in **Table 7-11** (IAN 135/10 Annex 1 Table 4) (**Ref. 7.28**).

Table 7-11 - Significance of Landscape Effects

| Rating | Criteria |
|------------------------------|--|
| Very Large Beneficial Effect | The project would: <ul style="list-style-type: none"> - Greatly enhance the character (including quality and value) of the landscape - Create an iconic high-quality feature and/or series of elements - Enable a sense of place to be created or greatly enhanced |
| Large Beneficial Effect | The project would: <ul style="list-style-type: none"> - Enhance the character (including quality and value) of the landscape - Enable the restoration of characteristic features and elements lost as a result of changes from inappropriate management or development - Enable a sense of place to be enhanced |
| Moderate Beneficial Effect | The project would: <ul style="list-style-type: none"> - Improve the character (including quality and value) of the landscape - Enable the restoration of characteristic features and elements partially lost or diminished as a result of changes from inappropriate management or development - Enable a sense of place to be restored. It fits very well in to the landscape. |
| Slight Beneficial Effect | The project would: <ul style="list-style-type: none"> - Complement the character (including quality and value) of the landscape - Maintain or enhance characteristic features and elements - Enable some sense of place to be restored |
| Neutral Effect | The project would: <ul style="list-style-type: none"> - Maintain the character (including quality and value) of the landscape - Blend in with characteristic features and elements - Enable a sense of place to be retained |

| Rating | Criteria |
|---------------------------|---|
| Slight Adverse Effect | The project would: <ul style="list-style-type: none"> - Not quite fit the character (including quality and value) of the landscape - Be at variance with characteristic features and elements - Detract from a sense of place |
| Moderate Adverse Effect | The project would: <ul style="list-style-type: none"> - Conflict with the character (including quality and value) of the landscape - Have an adverse impact on characteristic features or elements - Diminish a sense of place |
| Large Adverse Effect | The project would: <ul style="list-style-type: none"> - Be at considerable variance with the character (including quality and value) of the landscape - Degrade or diminish the integrity of a range of characteristic features and elements - Damage a sense of place |
| Very Large Adverse Effect | The project would: <ul style="list-style-type: none"> - Be at complete variance with the character (including quality and value) of the landscape - Cause the integrity of characteristic features and elements to be lost - Cause a sense of place to be lost |

Significance of Visual Effects

- 7.4.64. The evaluation of the significance of effects involves consideration of the sensitivity to change, derived during the baseline assessment, and the predicted magnitude of the impact that would occur during the construction and subsequent operation of Part A. The predicted effects take into consideration the mitigation measures incorporated as part of the preliminary design of Part A and the temporal or permanent nature of that change. Effects can be either adverse or beneficial.
- 7.4.65. In line with the approach set out in GLVIA3, professional judgement is applied both in evaluating magnitude and sensitivity and in how these are combined to judge significance. Professional judgement forms part of the qualitative assessment, which follows the agreed methodology to define significance.
- 7.4.66. Table 4 in IAN 135/10, Annex 2 (**Ref. 7.28**) sets out the proposed significance categories for use within the assessment. The various levels of effect can be applied to individual

properties, businesses, groups of housing, areas of open space and PRow including highways as well as representative viewpoints. The findings of the assessment have been represented using a descriptive narrative to explain the significance of effect rating as detailed in **Table 7-12** below.

Table 7-12 - Visual Significance of Effects Rating

| Rating | Criteria |
|------------------------------|--|
| Very Large Beneficial Effect | This would typically apply where the Project would create an iconic new feature that would greatly enhance the view |
| Large Beneficial Effect | This would typically apply where the Project would lead to a major improvement in a view from a highly sensitive receptor |
| Moderate Beneficial Effect | This would typically apply where the Project would cause obvious improvement to a view from a moderately sensitive receptor, or perceptible improvement to a view from a more sensitive receptor |
| Slight Beneficial Effect | This would typically occur where the Project would cause limited improvement to a view from a receptor of moderate sensitivity or would cause greater improvement to a view from a receptor of low sensitivity |
| Neutral Effect | This would typically occur where there would be no perceptible change in the view |
| Slight Adverse Effect | This would typically occur where the Project would cause limited deterioration to a view from a receptor of moderate sensitivity or cause greater deterioration to a view from a receptor of low sensitivity |
| Moderate Adverse Effect | This would typically apply where the Project would cause obvious deterioration to a view from a moderately sensitive receptor, or perceptible damage to a view from a more sensitive receptor |
| Large Adverse Effect | This would typically apply where the Project would cause major deterioration to a view from a highly sensitive receptor and would constitute a major discordant element in the view |
| Very Large Adverse Effect | This would typically apply where the Project would cause the loss of views from a highly sensitive receptor and would constitute a dominant discordant feature in the view |

7.4.67. As with the assessment of landscape effects, **Table 7-13** (IAN 135/10, Annex 2, Table 3) (**Ref. 7.28**) provides a framework to aid consistency in reporting likely effects arising from Part A. However, as above, professional judgement should still be applied. Where there is a

choice in the matrix between the levels of effects, further narrative is provided in **Appendix 7.2: Viewpoints Visual Effects Schedule, Appendix 7.3: Residential Visual Effects Schedule** and **Appendix 7.4: PRow Visual Effects Schedule, Volume 7** of this ES (**Application Document Reference: TR010041/APP/6.7**) to explain the judgement made.

7.4.68. For the purpose of this LVIA, all ‘Moderate, Large, and Very Large’ visual effects are considered to be significant (highlighted bold in the table below). Significant effects are highlighted in **bold**. All other effects (Neutral to Slight) are considered not to be significant.

Table 7-13 - Significance of Visual Effects Matrix

| | | Magnitude | | | | |
|--------------------|-----------------|------------------|-------------------|-------------------|-------------------------|---------------------------|
| | | No Change | Negligible | Minor | Moderate | Major |
| Sensitivity | High | Neutral | Slight | Slight / Moderate | Moderate / Large | Large / Very Large |
| | Moderate | Neutral | Neutral / Slight | Slight | Moderate | Moderate / Large |
| | Low | Neutral | Neutral / Slight | Neutral / Slight | Slight | Slight / Moderate |

SENSITIVE RECEPTORS

7.4.69. The criteria for identifying sensitive landscape receptors is set out in **Table 7-6** and for visual receptors in **Table 7-8**, above. The receptor locations were initially identified from desk-based review of reports, maps and air photos, then reviewed in the field during an initial site walkover with NCC on the 18 April 2018, following statutory consultation as set out within **Table 7-4**. Due to the extent of the ZTV, associated with Part A, it was deemed appropriate to restrict the extent of the landscape receptors to within 5 km of the centreline taking into account the likelihood of significance of effect significantly decreasing beyond this distance, taking into account the increased distance in separation, vegetation cover and built form. The Study Area for visual receptors was further refined based on professional judgement and past experience. When identifying sensitive visual receptors, it was considered appropriate to refine the locations of representative viewpoint locations to within 2km of the centreline, with individual receptors only being considered within 1 km.

7.4.70. The sensitive receptors identified for the Landscape and Visual Assessment are detailed in **Appendix 7.1: Landscape Effects Schedule, Appendix 7.2: Viewpoints Visual Effects Schedule, Appendix 7.3: Residential Visual Effects Schedule** and **Appendix 7.4: PRow Visual Effects Schedule, Volume 7** of this ES (**Application Document Reference: TR010041/APP/6.7**) and illustrated on **Figure 7.2: Landscape Character Areas** and

Figure 7.4: Viewpoint Location Plan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5).

FUTURE BASELINE

- 7.4.71. The future baseline describes the baseline conditions that are expected to develop and evolve by 2039 (Design Year) if Part A were not to proceed. The future baseline could change due to the passage of time, including:
- a.** Growth of any vegetation to assist with mitigating views (reducing effects) or form part of landscape character considerations.
 - b.** Additional visual receptors (completed housing developments, new recreational routes etc.), which would need to be considered and assessed.
 - c.** Updates to local policy - relevant to landscape and visual issues.
- 7.4.72. It is not anticipated that the baseline conditions as described above and within **Section 7.7** would be significantly different to those encountered today, or within the 15-year phase assessed within this chapter.
- 7.4.73. This is supported by a substantial proportion of the Study Area, being located within an area of Green Belt Extension policy (**Ref. 7.24**), which by its purpose, would seek to maintain the open character of the area. The remainder being mainly agricultural or related land uses and not anticipated to be subject to substantial change.
- 7.4.74. As such, for the purpose of this assessment, the future baseline (2039) is considered as being comparable to the present day.

7.5. ASSESSMENT ASSUMPTIONS AND LIMITATIONS

ASSUMPTIONS

- 7.5.1. The following assumptions have been made in undertaking the assessment:
- a.** The assessment is based on the assumption that the construction of Part A would commence in December 2021, with Part A opening in May 2024 (year 1). As a result, it is considered that the design year would be 2039.
 - b.** The baseline site work was carried out between 17 and 20 April 2018 (when the trees were bare, giving maximum visibility and the 'worst-case' scenario for screening) and between 19 and 22 June 2018 (when leaves were still on the trees, reducing visibility and giving a 'best-case' scenario for screening). The baseline situation does not consider any additional (newly built) visual receptors or vegetation growth after these dates
 - c.** Proposed landscape mitigation measures would be implemented as indicated on **Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)**, with average growth rates achieved during the 15 year design phase. For the purpose of this assessment it is assumed that by the design year, all hedgerows would have reached a height of 2 m and be subject to ongoing management to maintain this height, with woodland blocks reaching a minimum height of 6 m.

- d. If a PRoW is being permanently closed, it is assumed that this would occur during construction and continue throughout the operation period. Where a permanent diversion is to be provided, it is assumed that this would be undertaken early in the construction period in order to maintain public use. However, it would be necessary to temporarily close some PRoW during construction and these closures would be communicated in an appropriate manner, with alternative routes identified.
- e. There is no permanent lighting proposed for Part A. The temporary construction compounds would be lit (during the construction phase) and some sections of the works lit for safety reasons when it is dark during site working hours. There would also be small temporary compounds / lay down areas which may require lighting. In addition to this replacement lighting columns would be reinstated at West View, replacing those that would be lost to Part A. In this instance the lighting columns are considered as being like for like and thus has not required night time photography at this location.
- f. The assessment assumes that the screening benefit provided by existing and proposed vegetation is reduced in winter months, as a result of the absence of foliage. Typically, visual effects would therefore be greater during winter months and where planting depth is not sufficient to obscure views.
- g. Cultural Heritage assets are assessed only in terms of their potential as a point of interest and the visitor experience, effects on the assets itself and/or its setting are addressed in **Chapter 8: Cultural Heritage** of this ES.
- h. Assumptions using professional judgement have been made as to the nature of the view and the associated receptor that might contribute towards sensitivity, based on information gathered as part of desk top studies, aerial photography and site surveys, using comparable receptors with similar orientation, distance and nature where appropriate.
- i. Assumptions have been made as to the nature of the view and associated receptor based on information gathered as part of the desk top study, aerial photography and site surveys. It does not take into consideration the orientation of the viewer i.e. when travelling in a vehicle.
- j. Temporary stockpiles of topsoil would be stored to a maximum height of 2 m, with a gradient no greater than 1:2, and stacked no closer than canopy spread of boundary vegetation i.e. without the tree canopy areas. The soil within the storage areas would be stripped and stored for re-use and restored to the previous land use following the works. All other soil bunds / screening bunds would be up to 4 m in height with a maximum 1:3 gradient.
- k. At this time there is no proposed off site or advance work to be carried out in association with landscape character and visual amenity, which would include advance landscape planting, or mitigation planting. There are, however, advance works to be carried out by National Grid to divert a gas transmission pipeline, that would require localised removal of hedgerows (assumed to be between 10 m and 20 m in length, to allow for construction. A construction compound would be established in the vicinity of Causey Park Bridge, ahead of the main construction works.

- l.** It is assumed that all temporary haul roads would be located within the Order Limits. Where possible, material would be transported throughout the site by dump truck. The use of road-going vehicles would be avoided wherever possible. Bulk materials would be delivered using the existing A1 to distribute through the site. Haul routes would be cleaned or swept regularly, preventing the build-up of mud through the use of wheel washers or mechanical sweepers where necessary.
- m.** Upon completion, areas used as construction compounds would be returned to their original use.
- n.** The assumption adopted in drafting the ZTV have been that the observer height is 1.5 m and that the tallest moving component associated with Part A would be a 4.5 m Heavy Goods Vehicle (HGV), in line with GLVIA3 (**Ref. 7.29**).
- o.** The ZTV, shows the anticipated extent of the visual influence of Part A, based on bare ground modelling (i.e. no account is taken of the screening or filtering of views by intervening structures and elements such as buildings, walls, trees and hedgerows). However, significant effects would not be anticipated beyond 2 km of the centre line.
- p.** Part A is due to commence in December 2021 with planned opening for traffic in May 2024. The works shall be phased such that two-way traffic is maintained on the A1 at all times except for a restricted number of full closures for bridge beam lifts and the like during which alternative diversions routes would be available.
- q.** Hedgerows that are not considered essential mitigation, are those that are proposed to restore modified boundaries and/or connect landscape features joining the road, or to re-establish field boundaries and are identified on **Figure 7.8: Landscape Mitigation Masterplan, Volume 5** of this ES (**Application Document Reference: TR010041/APP/6.5**). These would be provided in agreement with the relevant landowner.
- r.** Earth bunds that are not considered to be essential mitigation, identified on **Figure 7.8: Landscape Mitigation Masterplan, Volume 5** of this ES (**Application Document Reference: TR010041/APP/6.5**), have not been included within the findings of the assessment. However, these are discussed in **Section 7.11** below.
- s.** The typical cross sections as illustrated upon the **Appendix 2.2: Technical Drawings, Indicative Cross-Section drawings, Volume 1** of this ES (**Application Document Reference: TR010041/APP/6.1**) illustrate the proposed regrading of the surrounding landscape associated with Part A. It should be noted that there have been several minor amendments to the design since these cross sections were prepared (e.g. a change from filter drain to surface water channel in the east verge from approximately Ch 22710 to Ch 23090) but these amendments do not change the key design principles on which the cross sections are based.
- t.** It is assumed that a minimal topsoil depth of 300 mm would be achieved across all planting areas identified upon the **Figure 7.8: Landscape Mitigation Masterplan, Volume 5** of this ES (**Application Document Reference: TR010041/APP/6.5**) which would be reduced to a minimum depth of 100 mm within those areas of grassland habitat creation (non-species rich). At the time of the assessment it was estimated that a topsoil

strip would generate approximately 150,000 m³ of material and 60,000 m³ of topsoil placement, leaving a potential surplus of 90,000 m³. This surplus is calculated before requirement of material for bunds and slackened side slopes are taken into account.

- u.** Where planting is proposed on cutting slopes and embankments these would not exceed a gradient of 1:2.5, allowing the slopes to remain capable of providing suitable growing conditions for native trees where a suitable depth of topsoil can be achieved, and long-term maintenance access is viable.

LIMITATIONS

7.5.2. The following limitations have been identified during the assessment:

- a.** The landscape and visual assessment viewpoints was undertaken from publicly accessible locations. Professional judgement was used in determining the extent and changes in views where access was limited.

7.5.3. The ZTV has the following limitations:

- a.** It is 'bare ground', therefore the ZTV does not take into consideration the screening or filtering of views posed by intervening structures and elements such as buildings, walls, trees and hedgerows.
- b.** It does not take into consideration the orientation of the viewer i.e. when travelling in a vehicle.
- c.** There are a number of areas within the ZTV, where there are potential views of Part A, but which comprise land where the general public do not have access.
- d.** During the course of the site survey, it was recorded that some of the PRowWs were inaccessible, due to the density of the vegetation and lack of way markers resulting in the definitive route being unidentifiable at times. As such a number of assumptions have been made in relation to the nature of the view, and the potential worst-case view, experienced when travelling along these routes.

7.6. STUDY AREA

7.6.1. The Study Area for the assessment was initially defined by the extent to which Part A would be visible from the findings of the ZTV. This is shown on **Figure 7.3: Zone of Theoretical Visibility, Volume 5** of this ES (**Application Document Reference: TR010041/APP/6.5**).

7.6.2. This indicated that, in theory, views would be achieved at a distance of 5 km and beyond; however, in combination with the relative distance, and existing features within the landscape such as woodland, individual trees and hedgerows and built form, the potential for significant effects to occur on landscape character would not arise beyond this distance. As a result, the Study Area for landscape character has been set at 5 km from the main centreline of Part A for direct effects, and to allow for the possibility of indirect effects on landscape character.

7.6.3. From the 5 km Study Area, supported through site visits and survey work, the Study Area for the visual impact assessment was refined and reduced in extent, to reflect the views

experienced by visual receptors. The following buffers were subsequently identified as being appropriate for the identification and assessment of potentially significant visual effects:

- 7.6.4. Representative viewpoints – a Study Area of 2 km from the centre line of the road has been used to identify representative viewpoints, both within the immediate vicinity of the Scheme, and potentially broader views from high points within the wider landscape.
- a. Individual receptors and groups and PRoW – at a more detailed level and to address specific views experienced from these receptors a refined Study Area was adopted as a 1 km buffer from the centre line of the road, beyond this distance the potential for significant effects to arise is considered low.
- 7.6.5. The Study Areas for the landscape and visual assessment are illustrated on **Figure 7.1: LVIA Study Area, Volume 5** of this ES (**Application Document Reference: TR010041/APP/6.5**).

7.7. BASELINE CONDITIONS

- 7.7.1. The baseline site work and desk study which was carried out in April 2018, and June and March 2018 identified the landscape and visual receptors and the baseline situation which stood at this time and forms the basis of this assessment.
- 7.7.2. **Figure 2.1: Environmental Constraints Plan: Part A, Volume 1** of this ES (**Application Document Reference: TR010041/APP/6.1**) shows the location of environmental designations and constraints.

LANDSCAPE

Landscape Description

- 7.7.3. Part A lies approximately 8.5 km to the west of the coast at Druridge Bay, between the historic market town of Morpeth and the village of Felton. The Study Area is moderately elevated (generally between about 80 m and 150 m AOD) comprising gentle undulations, with localised areas of higher ground. To the east of the Study Area the ground falls gently towards the coast. To the west of the Study Area, higher ground is discernible, including that of Lamb Crag (308 m AOD), Longhorsley Moor (175 m AOD) and Windylaw Woods (226 m AOD). To the north the ridgeline between the settlements of Swarland (west) and Guyzance (east), restrict longer views to the north.
- 7.7.4. Within the Study Area the landscape character is generally uniform in nature, with localised areas of variation. Agricultural practices are predominantly arable, comprising of irregular shaped fields, bound by hedgerows with scattered hedgerow trees. Scattered blocks of woodland are located within the Study Area, with the most extensive area of continuous woodland being located on either side of the River Coquet, at the northern end of Part A.
- 7.7.5. The surrounding landscape is predominantly undeveloped. Scattered farmsteads and hamlets are located within the Study Area, with small settlements located along the main arterial routes leading in and out of the Study Area. The largest settlement, Morpeth, is

located approximately 2 km (town centre) to the south-east of Part A. Morpeth itself straddles the River Wansbeck and is thought to date back to the medieval era.

- 7.7.6. The main arterial routes within the area are the existing A1 road corridor and the A697, where it leaves the A1, just north of Morpeth. In both instances the direction of the route alignment is broadly north to south. Narrow, single track lanes traverse/cross the landscape from west to east, connecting the A697 with the A1 and beyond. Hedgerows are located on either side of the single-track roads, frequently necessitating the inclusion of passing points along their routes.
- 7.7.7. There are two main watercourses located within the Study Area; the River Coquet is situated to the north, and the River Wansbeck, situated to the south. In both instances, they flow from west to the Northumberland coast to the east. Beyond these main watercourses, there are a number of smaller tributaries within the Study Area, for example Longdike Burn within the Order Limits.
- 7.7.8. PRow transverse across the Study Area. However, in most instances, the PRow appears to be fragments of former longer historical routes. For example, due to terminating prematurely in the middle of arable fields. i.e. PRow 423/006, or at the edge of the existing A1 i.e. PRow 422/011. To the north of Part A the St Oswald's Way (PRow reference 115/009), a regionally promoted long distance footpath), travels from west to east in the vicinity of the River Coquet.
- 7.7.9. In addition to the above, a footpath is located within the grass verge to the east of the existing carriageway between Tritlington Church of England First School and the turning for Causey Park and is approximately 3 km in length. There is also an existing footway in the east verge leading from Warreners House to Strafford House (south of the proposed Highlaws Junction).
- 7.7.10. Features within the landscape of cultural significance, which contribute to the area's sense of place include the avenue of trees along the existing A1 between Warreners House and Priest's Bridge, referred to as 'Coronation Avenue'. Described within the 'Royal Record', in 1936, as a collection of 152 white horse chestnut trees planted by a member of the Northumberland branch of the Women's Institute to commemorate the coronation of King George VI. The avenue was reportedly extended to the south to celebrate the coronation of Queen Elizabeth II with a combination of beech and lime trees.
- 7.7.11. Local visitor attractions within the area include:
- a. Northumberland Country Zoo.
 - b. Burgham Park Golf and Leisure Club (to the west of the existing A1) and Linden Hall Golf course and hotel immediately west of this.
 - c. Several holiday parks including Burgham Park, Felmoor Park (camping site/holiday Lodges) and Bockenfield holiday park (static caravans).
 - d. Eshott Airfield is located directly to the east of the existing A1, at the northern end of the Study Area.

- e. Immediately adjacent to the airfield and visible from the existing A1 road corridor is the Bockenfield Wood Burial Site. Formerly a world war II RAF base, in 2000, permission was granted to convert the then agricultural fields into a green burial site, Northumberland Woodland Burials.

7.7.12. With the exception of the landscape immediately adjacent to the existing A1 and A697 road corridor that dissects the Study Area, the landscape is relatively tranquil in nature. Adding to the area's sense of tranquillity is the lack of large-scale development enabling long distance views to be discernible, across the undulating landscape. The main sources of noise associated with the Study Area, come from vehicle movement along the A1 and A697 themselves.

Statutory Designated Sites

7.7.13. There are no statutory designated landscape sites located within the Study Area. At its closest point the Northumberland Coast Area of Outstanding Natural Beauty (AONB) is approximately 7.5 km to the north-east of Part A, with the Northumberland National Park approximately 11 km to the west at Rothbury.

7.7.14. Statutory designations which contribute to sense of place and which where relevant may form visitor attractions, but do not directly relate to landscape are identified within **Figure 8.1: Designated Heritage Assets**, and **Figure 9.3: Statutory Designated Sites, Volume 5** of this ES (**Application Document Reference: TR010041/APP/6.5**). These include, SSSI, Listed Buildings and Scheduled Monuments, potential effects on these are discussed in detail within **Chapter 8: Cultural Heritage** and **Chapter 9: Biodiversity** of this ES.

Non-Statutory Designations

7.7.15. Non-statutory designations located within the Study Area are located in **Figure 2.1: Environmental Constraints Plan: Part A, Volume 1** of this ES (**Application Document Reference: TR010041/APP/6.1**). These include Areas of High Landscape Value (AHLV), and ancient woodland.

7.7.16. Areas of High Landscape Value are identified under Policy RE17 and C3 within the Alnwick District Local Framework Development (1997) and the Castle Morpeth District Local Plan (February 2003) respectively.

7.7.17. Designations relating to local heritage, biodiversity and nature conservation value including Local Wildlife Sites, which contain elements of landscape interest are assessed in Chapter 8: Cultural Heritage and Chapter 9: Biodiversity of this ES. Ancient woodland is also considered within **Chapter 9: Biodiversity** of this ES. Refer to **Figure 8.2: Non-designated Heritage Assets** and **Figure 9.4: Non-Statutory Designated Sites, Volume 5** of this ES (**Application Document Reference: TR010041/APP/6.5**).

7.7.18. The area of ancient woodland and TPOs are discussed in detail within the following **Chapter 9: Biodiversity** of this ES and within **Appendix 7.5: Arboricultural Report, Volume 7** of this ES (**Application Document Reference: TR010041/APP/6.7**), and

locations shown in **Appendix B.3: Tree Constraints Plans** in **Appendix 7.5: Arboricultural Report, Volume 7** of this ES.

Conservation Areas

- 7.7.19. Within the Study Area, this section of the A1 is next to two conservation areas, these two areas neighbour each other at Felton and West Thirston, circa 500 m from Part A. The characteristics of the Conservation areas have informed the baseline description of the relevant landscape character area. Refer to **Chapter 8: Cultural Heritage** of this ES for an assessment of the effects on these, and to **Figure 8.1: Designated Heritage Assets, Volume 5** of this ES (**Application Document Reference: TR010041/APP/6.5**) for their location.

Green Belt

- 7.7.20. Part A is located (in part) within an area identified as Green Belt Extension (within the NCC Saved Policy S5 - Greenbelt Extension (**Ref. 7.24**)). Approximately 9.5 km of the 12.6 km Scheme is located within the Green Belt extension area between Morpeth and Eshott Airfield, (refer to **Figure 7.10: Green Belt, Volume 5** of this ES (**Application Document Reference: TR010041/APP/6.5**)).
- 7.7.21. The Green Belt designation incorporates the southern half of the Study Area and several of the local character areas, described within this baseline (refer to **Table 7-15**). The landscape comprises countryside that as a result of the gentle undulation in the landform, and dispersed nature of the woodland and settlements is considered to demonstrate the open characteristics of the Green Belt designation.

Landscape Character

- 7.7.22. For the purpose of this assessment, landscape character has been described at a national, regional and local level.

National Character Areas

- 7.7.23. NCAs have been developed by Natural England and profile 159 areas across England reflecting natural boundaries in the landscape. The NCA profiles provide information relating to landscape, wildlife, cultural and geological features, forces for change and environmental opportunities.
- 7.7.24. At a national scale Part A is located entirely within Natural England's NCA profile No. 12 Mid Northumberland (**Ref. 7.35**).
- 7.7.25. The key characteristics of the NCA within the Study Area are listed below in **Table 7-14**.

Table 7-14 - National Character Area within the Study Area

| NCA | Description |
|--|---|
| <p>NCA 1: North Northumberland Coastal Plain</p> | <p>The North Northumberland Coastal Plain is a narrow, windswept strip that runs from the Anglo-Scottish border south to the mouth of the River Coquet, bounded by the sea to the east and the Northumberland Sandstone Hills to the west. The gently undulating inland plain is dominated by arable farming, with large, regular fields bounded by gappy hedgerows and in some places grey sandstone walls, with some pasture for beef cattle and sheep. Woodland cover is sparse and predominantly confined to the river valleys that meander across the coastal plain and the estate woodlands around Howick. (Ref. 7.33).</p> <p>Tourism is a key economic driver within the NCA given the areas views, tranquillity and natural beauty.</p> <p>The dramatic coastline is exceptionally varied, with rocky headlands and cliffs contrasting with long, sweeping sandy beaches backed by dunes, and extensive intertidal mudflats and salt marsh around Lindisfarne. Further south, sandy beaches backed by sand dunes extend along Alnmouth Bay to the Coquet Estuary. The latter forms the extent of the Study Area.</p> <p>In recognition of the area's high quality of coastline and landscape value, at both a national and local scale the coastline has been designated as an Area of Outstanding Natural Beauty and Heritage Coast.</p> <p>In taking account of the NCA description above, the NCA has been assessed as comprising:</p> <ul style="list-style-type: none"> - Landscape value – High - Landscape quality – Very Attractive - Susceptibility to change – Low - Landscape sensitivity - High |
| <p>NCA 2: Northumberland Sandstone Hills</p> | <p>The Northumberland Sandstone Hills NCA extends north-east in an arc from the Border Moors and Forests NCA, with the Tyne Gap and Hadrian's Wall NCA to the south and the Mid Northumberland NCA to the south-east. It encircles the lowland plains of the Cheviot Fringe to the west, separating them from the lowlands of the North Northumberland Coastal Plain and Mid Northumberland NCAs to the east. (Ref. 7.34).</p> <p>The broad hill tops undulate in a series of ridges, characterised by dramatic escarpments, sandstone boulders and craggy outcrops, including that at Lamb Crag. They are pierced by a number of rivers and streams including the Grasslees Burn and the rivers Coquet and Aln. The ridgetops and upper slopes are dominated</p> |

| NCA | Description |
|-----------------------------------|--|
| | <p>by heather and grass moorland which is managed as rough grazing for hardy sheep and some cattle, and a small number of estates manage their land for red grouse. The chain of moorland is interrupted by a number of extensive conifer plantations including Harwood and Rothbury forests and Harbottle, Thrunton and Kyloe woods. Below the moorland improved pasture dominates with some cropping on the lower and dip slopes.</p> <p>In taking account of the NCA description above, the NCA has been assessed as comprising:</p> <ul style="list-style-type: none"> - Landscape value – Moderate - Landscape quality – Very Attractive - Susceptibility to change – Low - Landscape sensitivity - Moderate |
| <p>NCA 12: Mid Northumberland</p> | <p>At a broad scale the landscape is described as an “intermediate plateau of gently undulating farmland which forms a transitional area between the Northumberland Sandstone Hills to the west and the low-lying coastal plain to the east... Hadrian’s Wall World Heritage Site forms the southern border of the National Character Area (NCA). The area is generally regarded as having a high diversity of heritage assets, from the earthworks of prehistoric and medieval settlements to bastles, tower houses, farmsteads and designed parklands” (Ref. 7.35 page 3).</p> <p>In such a predominantly agricultural landscape, much of the semi-natural vegetation is now restricted to remnant lowland heath on Longhorsley Moor and to the oak, ash and alder woodlands which characteristically line the valleys of the rivers Coquet and Wansbeck. Veteran and hedgerow trees are key features of the agricultural and parkland landscapes, while ash and sycamore are the most frequent roadside hedgerow trees.</p> <p>Since the 20th century the landscape has continued to be shaped by agricultural change, with the enlargement of fields and loss of some boundary features. Mid Northumberland’s settlements and roads support a strong commuter function, and the growth of Morpeth and Ponteland. This has resulted in the pressure to expand villages along with changes in use of farm buildings to residence and business premises. In combination with the upgrade of the A1 and other major transport routes such as the A68, A696, and A697 this has brought a decline to the tranquillity and the geographic extent of ‘undisturbed’ countryside. Mining activities for coal and hard rock have occurred in the past and whilst there are no active sites, only some have been restored and thus remain readily perceptible, detracting from the overall sense of visual aesthetics.</p> |

| NCA | Description |
|--|--|
| | <p>In taking account of the NCA description above, the NCA has been assessed as comprising:</p> <ul style="list-style-type: none"> - Landscape value – Moderate - Landscape quality – Good - Susceptibility to change – Moderate <p>Landscape sensitivity - Moderate</p> |
| <p>NCA 13: South East Northumberland Coastal Plain</p> | <p>By its nature the NCA is a “flat, low lying strip along the coast of the North Sea, extending from the north Tyneside in the south to Amble and the Coquet estuary in the north. It is largely urbanised in the south and more rural to the north, with large fields, restored and active open cast coal mines and a coast of rocky headlands and wide, sandy bays” (Ref. 7.36 page 3).</p> <p>The First and Second World Wars left a legacy of defensive structures as the wide beaches were seen as possible invasion sites. More recently, settlement and infrastructure pressure continues to transform the area around major towns and along stretches of the coast. The 1953 floods were a trigger to build sea defences in order to protect the area from sea-flooding. The character of farmland has been enhanced through agri-environment schemes, and restorations of former mining sites continue to mature. Wind turbines are an increasingly common feature of the landscape including that at Lynemouth and West Chevington.</p> <p>In recognition of the areas cultural heritage and legacy, which in turn defies the areas sense of place, the Coast Line was designated as a Heritage Coast in 1973. The designation was later extended in 1995, following the restoration of the industrial site at Druridge Bay.</p> <p>In taking account of the NCA description above, the NCA has been assessed as comprising:</p> <ul style="list-style-type: none"> - Landscape value – High - Landscape quality – Good - Susceptibility to change – Moderate - Landscape sensitivity - Moderate |

Local Landscape Character Assessment

7.7.26. At a local scale, landscape character areas have been derived from the 2010 Northumberland Character Assessment (**Ref. 7.4**) and informed by the Alnwick Landscape Character Assessment (**Ref. 7.5**), however some of the boundaries have been revised at a

local level for this assessment, following the findings of the site walkover carried out in April and June 2018 respectively, by chartered landscape architects.

7.7.27. Variations within the landscape occur as a result of; underlying geology, soils, topography, land cover, hydrology, historic and cultural development, and climatic conditions. *“The combination of characteristics arising from these physical and socio-economic influences, and their often complex interrelationships, makes one landscape different from another”* (Ref. 7.7 page 8).

7.7.28. For the purpose of the assessment landscape character areas are identified on **Figure 7.2: Landscape Character Areas, Volume 5** of this ES (**Application Document Reference: TR010041/APP/6.5**) and those anticipated to be directly or indirectly affected are outlined in **Table 7-15** and **Table 7-16** respectively.

Table 7-15 - Local Landscape Character Area

| LCA | Description |
|---------------------------|--|
| LCA, 35a Coquet Valley | <p>The River Coquet is the defining feature of this character area, flowing from west to east towards the coast line. Along this section of the river corridor a number of settlements are located along its banks, including, Weldon, Felton and West Thirston.</p> <p>The landscape character area is defined by its steep wooded slopes on either side of the river channel. Within the character area the river travels in an easterly direction prior to travelling in a northerly direction at the boundary of adjoining LCA 2b. Much of the woodland within the character area has been identified as having national value, due to being included within the River Coquet and Coquet Valley Woodlands SSSI.</p> <p>To the north of the river, at the top of the embankment to the east of the A1, is the 18th century parkland of Felton Park and Acton House, immediately abutting the woodland extent.</p> <p>At the eastern extent of the character area is the settlements of Felton and West Thirston. There are Conservation areas within both settlements. Within the wider character area, medium to small scale fields dominate the landscape, bound by hedgerows. Farming practices within the area are a mix of pastoral and agricultural. The main driver of change within the area is the increasing pressure for residential development within villages, and conservation of rural buildings.</p> <p>In taking account of the description above, the regional character area has been assessed as comprising:</p> <ul style="list-style-type: none"> - Landscape value – High - Landscape quality – Very Attractive - Susceptibility to change - Low |

| LCA | Description |
|--------------------------------|---|
| | <ul style="list-style-type: none"> - Landscape Sensitivity - High <p>LCA 35a Coquet Valley includes the western extent of LCA 17 Coquet Valley (Alnwick Landscape Character SPD Adopted May 2010 (Ref. 7.5)).</p> |
| <p>LCA 38b Longhorsley</p> | <p>The main land use within the character area is farming with a strong enclosure pattern and an intricate network of small settlements, farmsteads, hedgerow trees and woodlands.</p> <p>“Around Longhorsley, field sizes are smaller, and patterns are less regular, indicating that they are older, possibly medieval. The fertile farmland of the area is cut by two major roads, the A1 and A697, which exert a significant influence on the landscape through severance and visual and aural intrusion” (Ref. 7.4 page 152).</p> <p>Riparian woodland is restricted to areas immediately adjacent to river corridors, which are frequent within the character area. Given the number of watercourses that flow through the area, the topography of the character area is one of gentle undulations with low points located along the water courses themselves.</p> <p>Settlement within the area is restricted to isolated farmsteads and localised hamlets at Hebron, Causey Park and Helm. Larger settlements of note include Longhorsley to the west and Tritlington to the east.</p> <p>Coronation Avenue is located within this character area, on either side of Part A, at its southern extent.</p> <p>Following recent development at the southern end of the character area, the area in and around Northgate has been identified as a standalone character area for the purpose of the assessment. Similarly, to the north of the character area, the cluster of pleasure facilities including Eshott Airfield, Felmoor Park and Burgham Park Golf Club have been separated in this instance.</p> <p>The majority of the character area is also designated under the Green Belt Extension area (refer to paragraph 7.7.20).</p> <p>In taking account of the description above, the regional character area has been assessed as comprising:</p> <ul style="list-style-type: none"> - Landscape value – Moderate - Landscape quality – Good - Susceptibility to change – Moderate - Landscape sensitivity – Moderate |

| LCA | Description |
|---|--|
| <p>38b (1) Hub of Recreational Activity</p> | <p>Located within the north-eastern corner of character area 38b Longhorsley, 38b (1) Hub of Recreational Activity, comprises of a localised cluster of recreational /pleasure pursuit activities that requires visitor interaction, for a prolonged duration of time within a localised area. To the west, the character area is defined by the extent of the Burgham and Linden Hall Hotel Golf Courses whilst to the east Eshott Airfield and Felmoor Park are located adjacent to one another. The two areas are separated by the existing A1 that forms the western and eastern half of the two areas respectively. In both instances the landscape features require regular human interaction to maintain their appearance and functionality.</p> <p>The landscape to the west of the existing A1 is also designated under the Green Belt Extension area (refer to paragraph 7.7.20).</p> <p>In taking account of the description above, the regional character area has been assessed as comprising:</p> <ul style="list-style-type: none"> - Landscape value – Low - Landscape quality – Ordinary - Susceptibility to change – Moderate - Landscape sensitivity - Low |
| <p>35b (2) Northgate</p> | <p>In recent years, aided by the provision of the Morpeth Northern Bypass, expansion of those settlements to the north-west of Morpeth has occurred.</p> <p>Formerly settlement within the area was restricted to a row of residential properties of mixed style and age to the west of the A1, with Northgate hospital to the east. However, development, in the form of new residential properties is currently ongoing to the east of the A1, to the south of Northgate hospital. Also included within the character area, is a local cemetery, at its north-western extent.</p> <p>The character area is defined by the Morpeth Northern Bypass to the south and the existing A1 to the west. Following the recent opening of the bypass in 2017, plant establishment to the south of the character area, is still in its early stages, allowing views of Morpeth to be achieved to the south, however over time (15 years) it is anticipated that longer views to the south-east would gradually become shorter following plant establishment.</p> <p>Tranquillity within the character area is lowered by the proximity of the existing A1, adding to the sense of urbanisation within the affected area. Common place features found throughout the country.</p> <p>The character area is also designated under the Green Belt Extension area (refer to paragraph 7.7.20).</p> |

| LCA | Description |
|-----|--|
| | <p>In taking account of the description above, the regional character area has been assessed as comprising:</p> <ul style="list-style-type: none">- Landscape value – Low- Landscape quality – Ordinary- Susceptibility to change – High- Landscape sensitivity - Low |

7.7.29. The following LCAs would not be directly impacted by Part A, however may be subject to indirect landscape impacts. The defining landscape features of each of the LCA's are described in **Table 7-16** below.

Table 7-16 - Local Landscape Character Areas within the Study Area

| LCA | Description |
|-------------------------------|--|
| 2b Lower Coquet | <p>As the River Coquet continues on its approach towards the Northumberland Coast, the river channel flows within a narrow incised valley within a broader, shallower vale, in a more north-easterly direction towards Warkworth. The immediate valley has extensive semi-natural woodland, with small-scale pasture in places. The wooded valley sides form a continuation of the River Coquet and Coquet Valley Woodlands SSSI. The upper vale is more open and appears visually more connected to the surrounding farmland. The river and the associated woodland along its embankment are a designated SSSIs, identifying its value as a landscape resource at both a national and local level. In taking account of the description above, the regional character area has been assessed as comprising:</p> <ul style="list-style-type: none"> - Landscape value –High - Landscape quality – Very Attractive - Susceptibility to change – Low - Landscape sensitivity – High <p>2b Lower Coquet includes the eastern extent of LCA 17 Coquet Valley (Alnwick Landscape Character SPD Adopted May 2010 Ref. 7.5).</p> |
| 35b Font and Wansbeck Valleys | <p>For the purpose of this assessment the settlement of Morpeth has been identified as a standalone character area. The character area consists of the valleys of the Rivers Font and Wansbeck, downstream of Fontburn Reservoir and the Wallington Estate respectively. Riparian woodlands often take on the meandering form of the hidden river channel as they flow through the character area. The landscape becomes more incised and dramatic along the course of the Hart Burn, a tributary of the River Wansbeck which flows through a wooded ravine (Ref. 7.4) Located along the watercourses within the area are a number of remains in the form of a deserted medieval village, Roman camps and an early Norman castle at Mitford providing evidence of early settlement within the area. The majority of the character area is also designated under the Green Belt Extension area (refer to paragraph 7.7.20). In taking account of the description above, the regional character area has been assessed as comprising:</p> <ul style="list-style-type: none"> - Landscape value – Moderate - Landscape quality – Good - Susceptibility to change – Low - Landscape sensitivity – Moderate |
| 35b (1) Morpeth | <p>The historic market town of Morpeth, dates back to the medieval period and represents the densest and consequently largest area of settlement within the Study Area. Land use is a mix of office, commercial and residential with the latter being the most dominant. The settlement is located on either side of the River Wansbeck. Large areas of ancient woodland along the river corridor such as Scotch Gill and Davie’s Wood offer additional value at a local level in the form of designation as a Local wildlife site and local nature reserve respectively. Urban fringe elements at the western edge of Morpeth are largely cloaked by woodland at Mitford. Panoramic views to the north in the direction of the A1, are available at the top of the ‘Ha Hill’, an 11th century motte and bailey is located within Carlisle Park, and on the southern bank of the River Wansbeck there are views of the Northgate Hospital’s water tower visible from this elevation. Landmark features within the area include a number of listed buildings, and a number of trees within Carlisle Park of similar significance to ‘Coronation Avenue’. Whilst the town contains some unique features, contributing to the sense of place, the remaining elements are common place within other towns throughout the country, reducing its overall landscape value and quality. The character area is also designated under the Green Belt Extension area (refer to paragraph 7.7.20). In taking account of the description above, the regional character area has been assessed as comprising:</p> <ul style="list-style-type: none"> - Landscape value –Moderate - Landscape quality – Good/Ordinary - Susceptibility to change – High - Landscape sensitivity – Moderate |
| 37a Wingates Ridge | <p>The Wingates Ridge is relatively pronounced, with numerous small-scale coniferous plantations and linear shelterbelts cross the ridge. Grassland is semi-improved, with frequent scrub and bracken encroachment in places. Moor land habitat is located at the eastern edge of the character area associated with Longhorsley Moor. The land is grazed by sheep, cattle and increasingly by horses in fields surrounding large rural properties and smallholdings. The landscape is crossed by a network of narrow lanes,</p> |

| LCA | Description |
|------------------------|---|
| | <p>many of which are tree lined creating a sense of enclosure. Given the areas elevation long distance views are possible to the north, south, east and west including views of the Northumberland Coastline to the east and national park to the north.</p> <p>The eastern margins of the character area are also designated under the Green Belt Extension area (refer to paragraph 7.7.20).</p> <p>In taking account of the description above, the regional character area has been assessed as comprising:</p> <ul style="list-style-type: none"> - Landscape value – Moderate - Landscape quality – Good - Susceptibility to change – Low - Landscape sensitivity – Moderate |
| 38a Longframlington | <p>This character area occupies undulating, relatively high ground bordering the coastal plain between the AIn and Coquet Valleys. Rectilinear field units are bounded by hedgerows originating from the parliamentary enclosures. Sizeable conifers plantations can be found around Swarland and north of Shilbottle. (Ref. 7.4) The main settlements within the area are Longframlington, Swarland and Shilbottle. Formerly the area was attributed to coal mining. Little physical evidence remains within the landscape today.</p> <p>In taking account of the description above, the regional character area has been assessed as comprising:</p> <ul style="list-style-type: none"> - Landscape value – Low - Landscape quality – Ordinary / Good - Susceptibility to change – Moderate - Landscape sensitivity – Moderate |
| 38c Whalton and Belsay | <p>This is a medium to large scale landscape of mixed arable and pastoral fields, with villages set within it. The country estates at Belsay and Bolam, and to a lesser extent Milbourne, stand out as well-wooded fragments of historic landscape, with 18th century parkland, estate buildings and other characteristic details. Areas of less regular, smaller-scale field patterns, notably around Whalton and Ogle, hint at continuity from an earlier date, possibly dating back to medieval times. To the east the disused Tranwell airfield, A1 trunk road, and institutional land uses including Kirkley Hall College and the former St Mary’s Hospital site, combine with other urban fringe influences. (Ref. 7.4).</p> <p>The northern fringes of the character area are also designated under the Green Belt Extension area (refer to paragraph 7.7.20). In taking account of the description above, the regional character area has been assessed as comprising:</p> <ul style="list-style-type: none"> - Landscape value – Moderate - Landscape quality – Good - Susceptibility to change – Moderate - Landscape sensitivity – Moderate |
| 39a Coastal Coalfields | <p>This relatively flat coastal plain has been heavily modified by mining and industrial activity. Restoration has generally resulted in oversimplified geometric landscapes of pasture and conifer blocks, which lack distinctive features. Opencast mining operations are ongoing at a small number of large sites. Despite general heavy modification of this landscape, there are pockets of unaltered rural character, including fragments of ancient woodland, and many of the older village centres, such as Ulgham, feature attractive honey coloured sandstone buildings. There are nature reserves at Druridge Bay and Hauxley. A golf course is situated within the estate of Longhirst Hall near Pegswood (Ref. 7.4). The A1068, runs through the LCA from north to south, providing links between those more substantial settlements within the area including Ellington, Widdrington, Hadston and Amble. Modern influences in the form of the introduction of windfarm technological is prominent within the LCA with a number of sizable windfarms visible to the east of the character area namely Lynemouth, Widdrington and Sister’s wind farms.</p> <p>The western fringes of the character area are also designated under the Green Belt Extension area (refer to paragraph 7.7.20). In taking account of the description above, the regional character area has been assessed as comprising:</p> <ul style="list-style-type: none"> - Landscape value – Moderate - Landscape quality – Ordinary/Good - Susceptibility to change – Moderate/High - Landscape sensitivity - Moderate |

| LCA | Description |
|-----------------|--|
| 39c Stannington | <p>The character of this landscape is significantly influenced by the adjoining urban areas of Morpeth to the north-west and Bedlington to the south-east and their associated infrastructure including prominent over-headlines and pylons. Several transport corridors run north-south through this character area including the A1, East Coast Main Line, A192, and another rail line. Scattered development lies between the A1 to the east and the industrial settlements of Bedlington and Cramlington to the west. To the west of the A1, the landscape is more rural in appearance, and includes the Blagdon Estate. The wooded, incised valleys of the Blyth and Wansbeck rivers are significant features cutting through the farmland, and both have public access, with Plessey Woods Country Park on the Blyth.</p> <p>The majority of the character area is also designated under the Green Belt Extension area (refer to paragraph 7.7.20).</p> <p>In taking account of the description above, the regional character area has been assessed as comprising:</p> <ul style="list-style-type: none"> - Landscape value – Low - Landscape quality – Ordinary - Susceptibility to change – Moderate / High - Landscape sensitivity – Moderate/Low |

Night Time Baseline

- 7.7.30. In general, the Study Area is devoid of substantial light pollution given the landscape's lack of built development and the dominance of open countryside.
- 7.7.31. Sources of light pollution within the 2 km visual effects Study Area are limited to that of the main town of Morpeth and the outlying villages of Felton (LCA 35a), Longhorsley (LCA 38b), and Swarland (LCA 38a). When viewed /observed from the surrounding landscape character areas, the visual prominence of these light sources is not clearly discernible and appears relatively self-contained, causing minimal light spill into the surrounding area.
- 7.7.32. At a more local scale, sources of noticeable light pollution beyond that of individual residential properties, discernible over short distances are associated with:
- a. The existing lighting columns along the frontage of those properties at West View (LCA 35b (2)).
 - b. Lighting columns/uplighters at Bockenfield Holiday Park / Felmoor Park and Burgham Park (LCA 38b (1)).
 - c. Vehicle headlights from cars using the existing road network. This is most noticeable along the existing A1 and A697, which are much busier than the smaller side roads (LCA 38b).
- 7.7.33. At a local level, the sources of light pollution contribute to the character area's sense of human interaction, reducing their sensitivity to change. However as noted above, light spill from these areas into the wider landscape setting is minimal being relatively contained by intervening features.
- 7.7.34. As such those receptors currently impacted by light pollution include:
- a. Properties located immediately adjacent to the existing road network.
 - b. Properties located within the main town of Morpeth.
 - c. Properties located within the villages of Felton, Longhorsley and Swarland.
 - d. Those properties located at West View.
 - e. Occupants of the static caravans at Bockenfield Holiday Park and Felmoor Park.

VISUAL BASELINE

- 7.7.35. The A1 is a large linear feature which dissects the gently rolling landscape. The Study Area is moderately elevated (generally between about 80 m and 150 m AOD) comprising of gentle undulations, with localised areas of higher ground e.g. Hebron Hill. To the east the ground is generally flatter, falling gently towards the coast. To the west, areas of higher ground are discernible, including that of Lamb Crag (308 m AOD), Longhorsley Moor (175 m AOD) and Windylaw Woods (226 m AOD). To the north and south, ridge lines restrict the visual influence of Part A that cross the landscape from east to west in both instances. Part A lies approximately 8.5 km west of the Northumberland Coast.
- 7.7.36. The ZTV (**Figure 7.3: Zone of Theoretical Visibility, Volume 5** of this ES (**Application Document Reference: TR010041/APP/6.5**)) illustrates that theoretical views of Part A would be discernible from a wide geographical area, given the local topography.

- 7.7.37. On clear days, long distance views as far north as Lambs Crag and wind farms at Ellington and Widdrington, along the Northumberland Coastland are discernible, located approximately 7.2 km and 8.5 km respectively at their closest point to Part A.
- 7.7.38. With the exception of the road corridor itself, manmade structures are limited within views throughout the Study Area. The majority of views comprise of open countryside, with woodland blocks scattered in and amongst the irregular field pattern.
- 7.7.39. Given the relatively open nature of the surrounding landscape and the frequent absence of intervening features within the foreground of views, long distance views are evident throughout the Study Area, only restricted by intervening features such as scattered woodland blocks and hedgerow trees restricting the view.

Visual Receptors

- 7.7.40. Four main receptor types have been identified within the Study Area (refer to **Figure 7.6: Visual Effects Drawing Residential Properties** and **Figure 7.7: Visual Effects Drawing PRoW, Volume 5** of this ES (**Application Document Reference: TR010041/APP/6.5**), showing the visual effects for residential properties and PRoW respectively):
- a. Residential receptors: occupants of residential properties, encompassing individual and groups of properties.
 - b. Recreational receptors: users of PRoW, including footpaths, bridleways, and long-distance trails and regionally promoted routes.
 - c. Commercial receptors: people at commercial properties, including local business and visitor attractions.
 - d. Transport receptors: road users, and users of the existing road network within the Study Area.

Viewpoints

- 7.7.41. The following viewpoints have been agreed with NCC, (presented in Table 7-17) and represent the range of potential views of Part A within the Study Area. They represent sensitive views from residential receptors, users of recreational footpaths, commercial properties, and local roads (refer to **Appendix 7.2: Viewpoints Visual Effects Schedule of Volume 7** of this ES (**Application Document Reference: TR010041/APP/6.7**)). **Table 7-19** (below) describes the viewpoint locations, notes the visual receptors that benefit from that view and the sensitivity of those receptors.
- 7.7.42. Following consultation with the consultees and statutory consultation, eight photomontages were produced for selected viewpoint locations. These are presented in **Figure 7.11: Photomontages, Volume 5** of this ES (**Application Document Reference: TR010041/APP/6.5**) and noted in **Table 7-16**.
- 7.7.43. The location of the viewpoints is shown on **Figure 7.4: Viewpoint Location Plan, Volume 5** of this ES (**Application Document Reference: TR010041/APP/6.5**) and the photos from each viewpoint are presented in **Figure 7.5: Representative Viewpoint Photographs, Volume 5** of this ES (**Application Document Reference: TR010041/APP/6.5**). **Appendix 7.2: Viewpoints Visual Effects Schedule, Volume 7** of this ES (**Application Document**

Reference: TR010041/APP/6.7) sets out the description, sensitivity of the receptors and sets out the visual effects from the receptors considered.

Table 7-17 – Viewpoint Locations and Sensitivity

| Ref | Receptor Ref | Viewpoint Description | Sensitivity |
|--------------------------------|--|---|--|
| Viewpoint 1 | R107, R108, R109, R110 | View looking north, along West View | The sensitivity of residential receptors in this location is high. |
| Viewpoint 2 | 407/010 | View looking west from PRow (407/010) | The sensitivity of recreational receptors in this location is high. |
| Viewpoint 3 | 407/010 | View looking north-west towards the start of Coronation Avenue from PRow (407/010) | The sensitivity of recreational receptors in this location is high. |
| Viewpoint 4 | R89, R90, R91, R92 407/018 Hebron Road | View looking west from Hebron Road within the vicinity of the church of St Cuthbert from PRow (407/018) | The sensitivity of recreational receptors on the PRow, and visitors to the Church of St Cuthbert, in this location are high, and the users of the local road network are of a moderate sensitivity. |
| Viewpoint 5 (Photomontage) | R87, R88 407/018 | View looking south-west from PRow (407/018) Beacon Hill | The sensitivity of recreational and residential receptors in this location is high. |
| Viewpoint 6 (Photomontage) | 407/018 | View looking north-west from PRow (407/018) at Beacon Hill | The sensitivity of recreational receptors in this location is high. |
| Viewpoint 7 | 423/002 | View looing north-west from PRow (423/002) | The sensitivity of recreational receptors in this location is high. |
| Viewpoint 8 (Photomontage) | R73, R74 423/001 | View looking north-west from PRow (423/001) at the northern extent of Coronation Avenue | The sensitivity of recreational and residential receptors in this location is high. |
| Viewpoint 9 | 423/001 A1 | View looking west from the existing south bound bus stop located along the existing A1 | The sensitivity of recreational receptors of the PRow and residential properties in this location is high, for those at Tritlington Church of England First School, the sensitivity is moderate, and users of the existing A1 road have a low sensitivity. |
| Viewpoint 10 (Photomontage) | 423/002 | View looking south-west from PRow (423/002) at The Farmhouse | The sensitivity of recreational receptors in this location is high. |
| Viewpoint 11 | 423/009 | View looking south-west from PRow (423/009) | The sensitivity of recreational receptors in this location is high. |
| Viewpoint 12 | 423/008 | View looking north-west from PRow (423/008) | The sensitivity of recreational receptors in this location is high. |
| Viewpoint 13 | R48, R49 423/009, 423/010 Widdrington Road | View looking west from the Widdrington Road at The Bungalow | The sensitivity of recreational and residential receptors in this location is high, and road users a moderate sensitivity. |
| Viewpoint 14 | 422/008 | View looking south-west from PRow (422/008) | The sensitivity of recreational receptors in this location is high. |
| Viewpoint 15 (Photomontage) | 422/003 | View looking north-west from PRow (422/003) | The sensitivity of recreational receptors in this location is high. |

| Ref | Receptor Ref | Viewpoint Description | Sensitivity |
|--------------------------------|---|--|--|
| Viewpoint 16 | R24, R25, R26 422/020 | View looking north-west from PRoW (422/020) | The sensitivity of recreational and residential receptors in this location is high. |
| Viewpoint 17 | 422/020 | View looking south-west from PRoW (422/020) adjacent to SSSI / ancient woodland | The sensitivity of recreational receptors in this location is high. |
| Viewpoint 18 | 422/020 | View looking north-west from PRoW (422/020) | The sensitivity of recreational receptors in this location is high. |
| Viewpoint 19 | 422/020, 422/002 A1 | View looking north from PRoW (422/020) | The sensitivity of recreational receptors in this location is high, and for road users low. |
| Viewpoint 20 | 422/020, 422/002 A1 | View looking south from PRoW (422/020 and 422/002) | The sensitivity of recreational receptors in this location is high, and for road users low. |
| Viewpoint 21 | 115/009 | View looking south-west from St Oswald's Way | The sensitivity of recreational receptors in this location is high. |
| Viewpoint 22 | 115/008 | View looking west from PRoW (115/008), nearby proximity to Listed Building | The sensitivity of recreational receptors in this location is high, |
| Viewpoint 23 | 115/016 | View looking north-east from PRoW (115/016) | The sensitivity of recreational receptors in this location is high. |
| Viewpoint 24 | 115/013 | View looking south-east from St Oswald's Way | The sensitivity of recreational receptors in this location is high. |
| Viewpoint 25 | 422/001, 422/002, 115/013 | View looking south-east from junction of PRoWs (422/002; 422/001 and 115/013) | The sensitivity of recreational receptors in this location is high. |
| Viewpoint 26 | 422/009 | View looking east from PRoW (422/009) | The sensitivity of recreational receptors in this location is high. |
| Viewpoint 27 (Photomontage) | R38, R39 West Moor Road | View looking north-east from Howdens Glebe cottages, off West Moor Road | The sensitivity of residential receptors in this location is high, and local road users moderate. |
| Viewpoint 28 (Photomontage) | 422/011 Burgham Park golf and Leisure Club | View looking east from PRoW (422/011) adjacent to Burgham Park golf and Leisure Club | The sensitivity of recreational receptors in this location is high, and local road users moderate. |
| Viewpoint 29 | 423/012 | View looking north-east from PRoW (422/012) | The sensitivity of recreational receptors in this location is high. |
| Viewpoint 30 | 411/030 | View looking south-east from PRoW (411/008) | The sensitivity of recreational receptors in this location is high. |
| Viewpoint 31 (Photomontage) | R50 Park Hag/ Causey Park Road | View looking east from Causey Park Hag/ Causey Park Road | The sensitivity of residential receptors in this location is high, and local road users moderate. |
| Viewpoint 32 | 423/013 | View looking south-east from PRoW (423/013) | The sensitivity of recreational receptors in this location is high. |

| Ref | Receptor Ref | Viewpoint Description | Sensitivity |
|--------------|--|---|--|
| Viewpoint 33 | 423/006, 423/007 | View looking south-west from PRow (423/006 and 423/007) | The sensitivity of recreational receptors in this location is high. |
| Viewpoint 34 | 423/016 | View looking east from PRow (411/016) | The sensitivity of recreational receptors in this location is high. |
| Viewpoint 35 | Fenrother Lane | View looking east from Fenrother Lane (west) at Fenrother | The sensitivity of road users in this location is moderate. |
| Viewpoint 36 | R78, R79, R80, R81 423/001 | View looking east from PRow (423/001) at Fenrother | The sensitivity of recreational and residential receptors in this location is high. |
| Viewpoint 37 | 423/001 | View looking north from PRow (423/001) | The sensitivity of recreational receptors in this location is high. |
| Viewpoint 38 | 407/011 Heighley Gate garden centre | View looking south-east from PRow (407/001) in close proximity to Heighley Gate garden centre | The sensitivity of recreational receptors in this location is high, and those visitors to the garden centre low. |
| Viewpoint 39 | 407/013 Northgate Cemetery | View looking north-east from PRow (407/013) and within the Northgate Cemetery | The sensitivity of recreational receptors in this location is high, and those visitors to the cemetery low. |

Residential

- 7.7.44. Residents are typically considered as being of high sensitivity due to the importance that individuals place on the view from their homes.
- 7.7.45. The nature of the land use pattern gives rise to scattered areas of low density housing, with the exception of clusters of development within areas described as 'service villages' within the Local Plan. These include the villages of Tritlington, West Thirston and Felton.
- 7.7.46. To the south-east of the Study Area, are the densest clusters of residential development associated with the urban fringe of Morpeth, this includes properties located at Northgate.
- 7.7.47. Within the remainder of the Study Area, residential properties are restricted to isolated farm steads or small hamlets, located along the road network which passes through the area.
- 7.7.48. Due to the pattern/distribution of residential properties within the Study Area being predominantly associated with the existing road network in most instances, vehicle movement is discernible within the foreground of existing views, partially screened by front gardens, or perimeter boundary planting. Beyond 1 km of the centre line, views of Part A from nearby residential properties would not be discernible. Where potential views have been identified from nearby residential properties these are generally from oblique angles, with few properties directly overlooking Part A.
- 7.7.49. A description of the residential receptors and their baseline view can be found in **Appendix 7.3: Residential Visual Effects Schedule, Volume 7** of this ES (**Application Document Reference: TR010041/APP/6.7**).

Recreational (Public Rights of Way)

- 7.7.50. The locations of PRoW in the Study Area are shown on **Figure 7.7: Visual Effects Drawing PRoW, Volume 5** of this ES (**Application Document Reference: TR010041/APP/6.5**). There are 68 PRoW identified within the 1 km visual amenity Study Area. These principally consist of footpaths with occasional bridleways and byways open to all traffic. In addition to these at the northern end of Part A is the St Oswald's Way Long Distance Route (a regionally promoted route).
- 7.7.51. With the exception of footpath 411/016, views of Part A beyond 1 km of the centre line would not be discernible.
- 7.7.52. Views from PRoW vary between open, long distance, uninterrupted expansive views, to footpaths with an enclosed, narrow field of view. In general, those PRoW that offer long uninterrupted views are located to the south of the River Coquet, and to the east of Part A, where the topography of the landscape has fewer undulations. To the west, long distance views are partially obstructed by the existing A1 road corridor, and the linear hedgerows and screen planting either side of it. PRoW 422/002 located directly to the south of the River Coquet, crosses the existing A1, allowing direct uninterrupted views along the road corridor. Further to the north of the River Coquet, St Oswald's Way and PRoW 115/008 and 115/016, cross below the existing A1 via under passes.

7.7.53. In accordance to IAN 135/10 (**Ref. 7.28**), irrespective of the type of PRoW, condition, usage, or nature of view, all PRoW are considered as equal with a high sensitivity.

7.7.54. A description of the PRoW receptors and their baseline view can be found in **Appendix 7.4: PRoW Visual Effects Schedule, Volume 7** of this ES (**Application Document Reference: TR010041/APP/6.7**). For full details on the nature and type of PRoW present within the Study Area, refer to **Chapter 12: Population and Human Health** of this ES.

Commercial (including Community Facilities)

7.7.55. There are several commercial and community premises, visitor attractions and leisure/recreational areas within 1 km of Part A, as set out in **Table 7-18**.

Table 7-18 - Commercial (and Community) Receptors

| Name | Receptor Type |
|--|----------------------------------|
| Eshott Airfield | Commercial |
| Northumberland Woodland Burials | Commercial |
| Northgate Hospital | Community |
| The shooting ground at Bywell | Commercial |
| Northumberland Country Zoo | Commercial |
| Tritlington Church of England First School | Community |
| Heighley Gate Garden Centre | Commercial |
| Burgham Park Golf Course | Commercial |
| Bockenfield Holiday Park | Commercial – temporary residents |
| Jackson G K and Sons Garage | Commercial |

7.7.56. Due to the nature of these receptors the relative sensitivity can be highly variable. In accordance with **Table 7-9**, commercial premises are normally considered to be of low sensitivity and recreational or leisure premises to be of moderate sensitivity. Holiday lets are considered to be less sensitive than residential receptors because they are used on a short-term basis.

7.7.57. A description of the commercial receptors can be found in **Appendix 7.3: Residential Visual Effects Schedule, Volume 7** of this ES (**Application Document Reference: TR010041/APP/6.7**).

Transport (Road Users)

- 7.7.58. Views of the existing A1 from local roads tend to be transient, with views being variable in nature depending upon the combination of elements located along them. Within the surrounding area, local roads are predominantly lined either side by hedgerows, with scattered trees and narrow grass verges, such that the focus of attention of the traveller tends to be on the road ahead.
- 7.7.59. When travelling along the existing A1 road corridor itself, the experience of the users varies from south to north, with longer views of the wider landscape available along its southern extent. At the northern end of the existing A1 road corridor affected by Part A, tree lined steep cutting slopes on either side of the carriageway screen views of the wider landscape beyond.
- 7.7.60. To the south, hedgerows line the road corridor on either side, set back from the carriageway by wide grass verges, exaggerating the width of the road corridor. Between Northgate and Tritlington, mature trees are set within the grass verge, referred to as Coronation Avenue, which creates a discernible character to the nature of the view along the road corridor at this section. Continuing north, views of the higher ground of Longhorsley Moorland, are perceivable to the west, whilst to the east, views towards the coastline are discernible. To the north of Causey Park, views looking in a northerly direction have a backdrop of the ridgeline between Lamb Craggs to the west and Shilbottle to the east.
- 7.7.61. Visual assessment of transport receptors within 1 km of Part A has been undertaken. The assessment of the potential effects on these routes would have been assisted by the use of site assessment and ZTV mapping. Due to the principal focus of the travelling public on the road ahead, sensitivity of road users is considered as being moderate to low.
- 7.7.62. All visual receptors were scoped in to the assessment, and their sensitivity is set out in **Appendix 7.2: Viewpoints Visual Effects Schedule, Volume 7** of this ES (**Application Document Reference: TR010041/APP/6.7**).

7.8. POTENTIAL IMPACTS

RECEPTORS SCOPED OUT

- 7.8.1. The following sections set out those receptors scoped out of the assessment following the site visits and desk study because significant effects are not anticipated:

Landscape

- 7.8.2. The following character areas have been scoped out because significant effects are not anticipated:
- a. NCA 1: North Northumberland Coastal Plain
 - b. NCA 2: Northumberland Sandstone Hills
 - c. NCA 13: South East Northumberland Coastal Plain

- 7.8.3. The local LCAs listed above have been scoped out of the assessment because they are not anticipated to experience significant effects due to the lack of intervisibility created by intervening vegetation, topography and interrelationship with Part A.
- 7.8.4. The NCAs are scoped out because the indirect impacts as a result of Part A are not anticipated to have a significant effect on the character of these areas considered as a whole.
- 7.8.5. The Northumberland Coast AONB has been scoped out of the assessment due to the lack of intervisibility between the AONB and Part A. There would be no anticipated visual effects on receptors within the AONB, nor effects on the landscape character of the AONB arising from Part A.

Visual

- 7.8.6. Due to the offline section of Part A and the potential for adverse effects, all receptors within the 1km study area have been included within the assessment.

CONSTRUCTION

- 7.8.7. The following potential impacts have been identified in relation to landscape character and visual amenity during the construction phase of Part A.
- 7.8.8. The construction of Part A would include temporary works such as vegetation removal, soil stripping, material storage mounds, plant movements, temporary lighting and machine activity to build structures, earthworks and the road surfaces. There would be temporary construction compounds required.

Landscape Designations

- 7.8.9. Part A would directly and adversely affect landscape designations as follows:
- a. Areas of High Landscape Value (AHLV)** – Part A would dissect those AHLV, at the northern extent of Part A, from north to south, where the Scheme would cross the River Coquet. During construction, vegetation clearance along the eastern side of the existing carriageway, to facilitate the construction of the proposed additional River Coquet Bridge and online widening, would result in an increased width to the road corridor, providing greater physical and visual separation between those areas to the east and west. Short term temporary increase to the visual presence of the A1 road corridor as it travels through the area is anticipated. To the south, a smaller AHLV to the west of the A1 and associated with Espley Hall, would also be temporarily impacted by Part A, due to an access track running from east to west through it, providing connectivity between the existing A1 and A697. The presence of construction machinery along the track would increase the visual awareness of the track within the AHLV.
 - b. Conservation areas** – Part A would not directly impact on the two Conservation areas, recorded at the northern end of the Study Area, located within the settlements of Felton and West Thirston. This is discussed in more detail in **Chapter 8: Cultural Heritage** of this ES.

- c. Green Belt** – Part A would give rise to a reduction in the perceived openness of the landscape, particularly during the construction phase, during which a combination of vegetation clearance and the formation of embankments, temporary spoil storage and the formation of junctions and overbridges would give rise to a loss in broader appreciation of the landscape. Further discussion on the Green Belt is within the **Case for the Scheme (Application Document Reference: TR010041/APP/7.1)**.
- d. Ancient woodland** – Part A would result in an area of ancient woodland being permanently lost to facilitate the construction of the proposed River Coquet Bridge. The works would result in a permanent loss of 0.68 ha ancient woodland. A Woodland Creation Area for the ancient woodland has been identified on the Landscape Mitigation Masterplan (**Figure 7.8: Landscape Mitigation Masterplan, Volume 5** of this ES (**Application Document Reference: TR010041/APP/6.5**)) with more detail in **Chapter 9: Biodiversity** of this ES.
- e. Tree Preservation Orders (TPOs)** – the construction of Detention Basin No.4 and the online widening between Ch 13300 – 13600 to the west of the existing carriageway would result in the permanent loss of the area of TPOs identified within **Appendix 7.5: Arboricultural Report, Volume 7** of this ES (**Application Document Reference: TR010041/APP/6.7**).

Landscape Elements

- 7.8.10. The **Arboricultural Report (Appendix 7.5, Volume 7** of this ES (**Application Document Reference: TR010041/APP/6.7**)) details the landscape features that would be lost as a result of the construction of Part A. In summary, there would be:
- a.** Clearance of 28.2 ha of woodland.
 - b.** Clearance of 30.2 ha of Trees and Groups of trees.
 - c.** Clearance of 12.5 ha of hedgerow (based on canopy cover).
 - d.** Removal of 187 of the approximate 300 trees that make up the Coronation Avenue.

Landscape Character

- 7.8.11. Part A would be likely to directly, and adversely, impact on NCA No.12 – Mid Northumberland and the following local landscape character areas:
- a.** LCA 35a Broad Lowland Valley – Coquet Valley.
 - b.** LCA 38b Lowland Rolling Farmland – Longhorsley.
 - c.** LCA 38b (1) Lowland Rolling Farmland - Hub of Recreational Activity.
 - d.** No.17 Coquet Valley – (Alnwick Landscape Character Assessment SPD) (**Ref 7.5**).
- 7.8.12. Within these landscape character areas, potential adverse impacts to landscape character identified during construction are likely to arise through the construction of Part A, and the establishment of associated construction compounds and topsoil storage areas, existing vegetation would be removed to facilitate the construction process. Refer to **Appendix 7.5: Arboricultural Report, Volume 7** of this ES (**Application Document Reference: TR010041/APP/6.7**) for detailed information on the quantity and quality of the tree and

vegetation cover within the Study Area which would be lost to Part A. Landscape elements removed in order to construct Part A are outlined in **paragraph 7.8.10**.

- 7.8.13. Temporary alteration to the experience of visitors to natural or cultural heritage features of interest could occur as a result of:
- a. Temporary traffic management and plant movements.
 - b. Temporary light pollution from construction compounds.
 - c. Temporary loss of tranquillity during the construction phase of the works from site activities.
 - d. Temporary localised landscape impacts from the introduction of out of place landscape elements including concentrated areas of construction machinery including flashing lights, temporary spoil heaps and construction compounds.
 - e. Vegetation clearance to facilitate construction is anticipated to occur during the initial mobilisation and subsequent phases, requiring the permanent removal of landscape features that contribute to the vegetation cover.
 - f. Additional areas of tree clearance as a result of potential safety concerns relating to the wind throw effect of vegetation removal on the fringes of woodland orientated towards the prevailing westerly-south westerly winds, particularly associated with plantation woodland where due to planting densities, trees can become tall and structurally weak. This would temporarily generate exposed views of the wider landscape and the construction activity therein, until mitigation planting in the form of woodland edge planting can establish.
 - g. Temporary spoil heaps, material storage, and construction compounds would change the perception of the existing A1 and the broader landscape associated with the corridor.
 - h. Plant, machinery and traffic management would be conspicuous in views of the existing A1 corridor, highlighting the presence of Part A and the changes occurring within the A1 corridor.
 - i. A temporary reduction in relative tranquillity as a result of the construction activity and extended influence of the construction corridor associated with Part A.

7.8.14. For construction phase impacts on specific landscape character areas, refer to **Appendix 7.1: Landscape Effects Schedule, Volume 7** of this ES (**Application Document Reference: TR010041/APP/6.7**).

7.8.15. The extent of vegetation clearance associated with Part A is illustrated on **Figure 7.9: Vegetation Clearance Plans, Volume 5** of this ES (**Application Document Reference: TR010041/APP/6.5**).

Visual Amenity

- 7.8.16. Visual receptors could experience potential adverse impacts during the construction of Part A as a result of:
- a. The temporary presence of large construction compounds.
 - b. Temporary traffic management.

- c. The temporary movement and activity of large construction machinery and vehicles within views, usually with flashing lights.
- d. Temporary views of cranes during lifting operations associated with structures, in particular associated with the construction of the additional crossing of the River Coquet, including the formation of the supports, abutments and bridge deck.
- e. Temporary spoil heaps.
- f. Temporary lighting of works areas in areas previously unlit.
- g. Temporary artificial lighting of areas for night time working (it is currently anticipated that the construction compounds would be lit at all times for security and welfare use).
- h. Permanent vegetation clearance that leads to the opening of new views.
- i. The construction of new structures which would be prominent construction activities, such as the construction of the Highlaws, Fenrother and West Moor junctions.
- j. Demolition of North Gate House, which would result in temporary visual impacts on nearby residential properties that overlook the area including Capri Lodge, Northgate Farm, Warreners Barns, Warreners Cottages, and Warreners House.
- k. Temporary visual impacts associated with the extension of the existing culvert at Glenshotton.
- l. Temporary disturbance associated with the partial demolition of Paradise Culvert, located on Floodgate Burn, to facilitate its extension with a new precast concrete structure. The proposed phasing of the works would result in the first phase of demolition occurring at the western end of the existing culvert, with the second section being demolished following the construction of the new carriageway.
- m. Temporary visual impacts associated with the formation of a new Parkwood subway, from nearby residential property. The works would result in a temporary closure of the existing underpass, during the initial phase of the works.

OPERATION

- 7.8.17. The following potential impacts have been identified in relation to landscape character and visual amenity during the operational phase (year 15) of Part A.
- 7.8.18. At this stage of Part A, it is anticipated that the widening of the road, the proposed offline section of road, junction improvements and bridge works would result in operational effects for landscape and visual receptors as detailed below.

Landscape Designations

- 7.8.19. Part A would potentially impact designated landscapes, in the following ways during operation:
- a. **Areas of High Landscape Value** – following construction, Part A would give rise to landscape impacts to those Areas of High Landscape Value, on either side of the River Coquet, due to Part A being an addition to and alteration of an existing feature within the Study Area.
 - b. **Conservation areas** – Part A would not directly impact on the two Conservation areas, recorded at the northern end of the Study Area, located within the settlements of Felton

and West Thirston. This is discussed in more detail within **Chapter 8: Cultural Heritage**, of this ES.

- c. Green Belt** – Part A would result in the direct loss of an area of open countryside within an area of Green Belt Extension, through the provision of the offline section of Part A. The physical loss of the land would represent an erosion of the designated area, and there would be a perceptible change in the landscape character, and sense of openness, a key characteristic of Green Belt policy areas. Further discussion on the Green Belt is within the **Case for the Scheme (Application Document Reference: TR010041/APP/7.1)**.
- d. Statutory Designations** - Given the distance of separation between Part A and the Northumberland National Park, the Area of Outstanding Natural Beauty and Heritage Coast, no impacts have been identified as arising during the construction phase of Part A on these statutory designations.

Landscape Character

- 7.8.20. Part A would indirectly and adversely impact on the following local landscape character areas within the wider Study Area (refer to **Figure 7.2: Landscape Character Areas, Volume 5** of this ES (**Application Document Reference: TR010041/APP/6.5**)):
 - a.** LCA 38b Lowland Rolling Farmland – Longhorsley.
 - b.** LCA 35a Broad Lowland Valley – Coquet Valley.
 - c.** LCA 38b (1) Lowland Rolling Farmland – Hub of Recreational Activity.
 - d.** LCA 17 - Coquet Valley
- 7.8.21. The following permanent adverse direct impacts to landscape character are anticipated as a result of Part A during operation:
 - a.** Permanent alteration to existing landform (cuttings and embankments).
 - b.** Permanent loss of woodland (some of which is classed as ancient woodland, refer to **Chapter 9: Biodiversity** of this ES).
 - c.** The introduction of a major road within a rural setting (offline section of Part A).
 - d.** The increase in scale of the online section of the existing A1 carriageway, increasing its prominence within the landscape.
 - e.** The permanent formation of embankment and cutting slopes at odds with the underlying topography.
 - f.** Alteration to existing landscape pattern through the addition of a strong linear feature that cuts across the ‘grain’ of the landscape.
 - g.** Permanent alteration to field boundaries.
 - h.** Alteration to the setting of cultural heritage features of interest. Refer to **Chapter 8: Cultural Heritage** of this ES. This includes designated heritage assets such as listed buildings, conservation areas and scheduled monuments, and non-designated heritage assets.
 - i.** Permanent reduction of tranquillity within those areas associated with the offline section of Part A through the introduction of movement and noise.

- j.** Increase in tranquillity along the section of existing A1 to be de-trunked through the reduction of vehicle usage along the affected section of Part A.
- k.** Introduction of light pollution from vehicle headlights into previously dark areas.

7.8.22. The following permanent adverse indirect impacts within the wider character areas, associated with the operational phase of the works include:

- a.** Increased visibility of the existing A1 within the neighbouring LCAs, through the introduction of an additional corridor of traffic movement along the offline section of Part A and proposed junctions.
- b.** Loss of woodland within the landscape that forms interim horizon lines, along the River Coquet as a result of the formation of the additional bridge deck, allowing for longer distance views across the landscape, from those more northerly and south-westerly character areas.

7.8.23. For operational phase impacts on specific landscape character areas, refer to **Appendix 7.1: Landscape Effects Schedule, Volume 7** of the ES (**Application Document Reference: TR010041/APP/6.7**).

Visual Amenity

7.8.24. Visual receptors could experience potential adverse impacts during the operation of Part A as a result of:

- a.** The introduction of traffic movement into a comparatively tranquil area.
- b.** The increased visual presence of the road.
- c.** Addition of structures that stand out in the view, such as the Highlaws, Fenrother and West Moor junctions.
- d.** Introduction of embankments (e.g. that cut across the Earsdon Burn) and cuttings (e.g. the approaches to the bridge over the River Coquet), particularly noticeable because of changes over a short time-scale, given the extent of visible bare earth.
- e.** Permanent change to the existing topography, impacting on the nature of views and depths of views/perception.
- f.** The removal of movement (of traffic) from the de-trunked section.
- g.** Vehicle lights changing the night time view.

7.9. DESIGN, MITIGATION AND ENHANCEMENT MEASURES

DESIGN

7.9.1. Through an iterative design process, and consultation with NCC and Natural England, a Landscape Mitigation Masterplan for Part A has been developed (**Figure 7.8: Landscape Mitigation Masterplan, Volume 5** of this ES (**Application Document Reference: TR010041/APP/6.5**)).

Construction

7.9.2. An **Outline Construction Environmental Management Plan (Outline CEMP)** (**Application Document Reference: TR010041/APP/7.3**), and contains the following measures:

- a. Avoidance and retention of existing mature vegetation wherever possible, as identified on **Figure 7.8: Landscape Mitigation Masterplan, Volume 5** of this ES (**Application Document Reference: TR010041/APP/6.5**). The roots of vegetation that enter the construction corridor would be protected in accordance with BS5837 Trees in relation to design, demolition and construction – Recommendations.
- b. No works, including temporary works such as the creation of topsoil mounds would be carried out within the canopy spread of existing retained trees.
- c. Construction compounds would be laid out such that temporary soil mounds would be utilised to screen views of construction activities and light pollution in the surrounding area.
- d. Upon completion areas used as construction compounds would be returned to their original use.
- e. The construction programme would be kept to the minimum practicable time to reduce the duration of any landscape and visual impacts. Areas would be cleared for construction as close as possible to works commencing and top soiling, reseeding and planting would be undertaken during the next available season after sections of work are complete.
- f. As far as practicable, plant and material storage areas would be sited so as to avoid landscape and visual impact.
- g. Construction compounds and working areas would be kept tidy (e.g. free of litter and debris) through robust construction compound management.
- h. Work during hours of darkness would be avoided as far as practicable and where unavoidable directed lighting would be used to minimise light pollution and glare. Lighting levels around construction compounds would be kept to the minimum necessary for security and safety.
- i. To protect soil quality for the purposes of landscape planting, the following measures would be implemented:
 - i. Uncontaminated topsoil for re-use would be stored in un-compacted mounds no more than 2 m high and stored separately from subsoil material.
 - ii. Stripped topsoil would be used in areas of similar proposed vegetation type to utilise the existing natural seed bank.
 - iii. Subsoil in planting areas would be replaced where appropriate following construction and appropriately treated, this may include being ripped to reduce compaction (depending on underlying soil type and conditions), before top soiling and planting.
 - iv. Proposed planting areas in existing arable and pasture land, subject to construction activity, would be ripped to 600 mm to alleviate compaction, where required.
- j. It is assumed that a minimal topsoil depth of 300 mm would be achieved across all planting areas. Topsoil depth would be reduced to a minimum depth of 100 mm in areas of amenity grassland areas. Topsoil would not be used for species rich grassland areas.

- k.** Construction would be managed such that the loss of any existing woodland, scrub, heath, grassland vegetation, and isolated trees and shrubs not affected by the permanent works is avoided as far as practicable. Refer to **Appendix 7.5: Arboricultural Report, Volume 7** of this ES (**Application Document Reference: TR010041/APP/6.7**) for further details.
- l.** All existing trees and shrubs not affected by the construction of the permanent works would be fenced off with a suitable type of temporary fencing in accordance with BS5837. Fencing would be erected prior to construction activities in that area and would remain for the entire construction period in that area.
- m.** Maintaining existing pedestrian routes as far as reasonably practical with traffic management measures.
- n.** Surrounding roads and pavements to be maintained free of excessive dust and mud.

7.9.3. No off-site or advanced screen planting is proposed as part of Part A.

Operation

7.9.4. Embedded mitigation has been developed through the design process and forms an integral part of the landscape design of Part A and includes the following measures:

- a.** Existing vegetation within the Order Limits would be retained as identified on **Figure 7.8: Landscape Mitigation Masterplan, Volume 5** of this ES (**Application Document Reference: TR010041/APP/6.5**), to reduce potential impacts relating to screening and landscape integration. Where replacement planting is carried out it would be in keeping with the existing landscape.
- b.** Ash (*Fraxinus excelsior*) has been omitted from all planting mixes at this time due to the biosecurity risk (Ash Dieback *Hymenoscyphus fraxinea* formerly *Chalara fraxinea*) which is associated with this species. Further information about Ash dieback in the area is available in **Appendix 7.5: Arboricultural Report, Volume 7** of this ES (**Application Document Reference: TR010041/APP/6.7**).
- c.** Where hedgerows are shown as being retained on the landscape mitigation masterplan, but are subsequently removed to construct Part A, replacement hedgerow planting would be required, using a species mix to match the existing hedgerow lost to Part A.
- d.** Throughout the extent of the Order Limits, where existing vegetation has been lost to facilitate the construction of Part A (including vegetation clearance works to accommodate the construction compounds), replacement woodland blocks, hedgerows, agricultural land use, and individual trees would be required for the restoration of the land, with the aim of conserving landscape character and associated views. This would be in accordance with **Figure 7.8: Landscape Mitigation Masterplan, Volume 5** of this ES (**Application Document Reference: TR010041/APP/6.5**).
- e.** Further to the above, the proposed hedgerows identified in the Landscape Mitigation Masterplan (**Figure 7.8, Volume 5** of this ES (**Application Document Reference: TR010041/APP/6.5**)), located on either side of the main alignment of Part A would be

supported by linear belts of woodland block planting, and they are intended to act as a wind break to enable successful plant establishment.

- f.** At the northern end of Part A, where the offline section re-joins the existing A1, anti-glare fencing is proposed in place of hedgerow planting is proposed where space is restricted. Within these areas' hedgerows would be planted along the proposed permanent highway boundary where space allows. At its most southern limit, the anti-glare fencing would commence at Chainage 19900, where it would tie into the proposed noise barrier (PNB4). From here the anti-glare fencing would extend in a northerly direction, to the east of the carriageway as far north as West Moor Junction. A further length of anti-glare fencing would extend adjacent to the southbound carriageway between 20700 and 21450.
- g.** Tree and shrub planting has been omitted to the east of Part A, between Chainage 20000 - 20400 (in association with Detention Basin No. 15 and 15a) and in association with Detention Basin 17, in order to discourage its use by birds, thereby reducing the collision risk with vehicles and planes in proximity to Eshott Airfield. Within this area planting would be restricted to grassland habitat that would be managed in order to maintain a short sward height, to discourage use by ground nesting birds and barn owls.
- h.** Marginal and aquatic species would be planted within each of these detention basins in order to increase their biodiversity value. This would be extended to include the embankments of open drainage ditches. At this time, Detention Basins No 15, 15a and 17, are not intended to hold standing water for prolonged phases of time to discourage use by birds and therefore reduce the risk of bird strikes by planes from Eshott airfield.
- i.** An isolated area of reed beds is proposed at Ch 20880 to the west of the mainline.
- j.** A 5 m easement would be required on either side of the proposed diverted gas lines, located primarily within third party land. Where planting is indicated within the affected area, only species recommended by industry best practice guidance would be used. This is restricted to short sections of hedgerow planting, where the gas line would otherwise sever the linear feature. The easements themselves would be seeded, using a mix appropriate to the adjoining area.
- k.** The design of the proposed River Coquet Bridge, to reflect the form and vertical alignment of the existing bridge, would be required to reduce the landscape and visual effects of the new bridge structure within the landscape of the river corridor, and on views experienced by recreational users of the PRoW and road users.

MITIGATION

- 7.9.5. In addition to the embedded mitigation a number of further specific mitigation measures relating to landscape and/or visual effects have been identified during the assessment phase (refer to **Figure 7.8: Landscape Mitigation Masterplan, Volume 5** of this ES (**Application Document Reference: TR010041/APP/6.5**)).
- 7.9.6. The removal of some existing landscape features to facilitate the construction of Part A would result in a high magnitude of impact upon the local landscape. The subsequent

establishment of the mitigation measures identified within the landscape mitigation masterplan would result in a reduction in the potential for significant landscape effects.

- 7.9.7. Where replacement of removed planting would be carried out it would be in keeping with the existing landscape, avoiding the extensive use of mass planting of woodland trees (which over time would screen longer views) in order to retain an open, permeable character to the wider landscape.
- 7.9.8. Shrub planting along Part A would be restricted to those areas on either side of culverts and mammal underpasses, in order to encourage usage of the structures by the respective species. This would be extended to include sections of shrub planting on either side of the bridges which cross the mainline in and around the junctions to discourage flight paths of bats too close to vehicle updrafts. This is discussed in more detail within **Chapter 9: Biodiversity** of this ES.
- 7.9.9. Replacement grassland habitat is identified throughout the Order Limits. In total there are seven suggested grass types proposed as part of Part A, taking into consideration the specific characteristics of each environment, and to improve the biodiversity of Part A (detailed below).
- 7.9.10. Grassland habitat across Part A has been broken down into the following categories (refer to **Ref. 7.32**):
- a. Amenity Grassland (LE 1.1).
 - b. Species Rich (Conservation) Grassland (LE 1.3).
 - c. Open Grassland (LE1.6), applied to all other areas.
 - d. Marsh Wet Grassland (LE 6.4).
 - e. Arable Field Margins (LE1.6).
- 7.9.11. Within the areas of Species Rich (Conservation) Grassland (LE1.3) mitigation, four distinct grass types would be required, each with their own set of unique management practices. These are:
- a. Junctions / grass verge – suitable for low frequency grass cut areas.
 - b. General grassed areas – suitable for cutting slopes and embankments.
 - c. Arable field margins – suitable for the encouragement of pollinators.
- 7.9.12. Where land is not permanently required for mitigation (refer to **Chapter 9: Biodiversity** of this ES), land would be returned to former land use.
- 7.9.13. A proposed Woodland Creation Area would replace removed ancient woodland and provide connectivity to the adjacent and retained ancient woodland. It is acknowledged that the area of compensation would not be deemed to be like for like replacement habitat given the time it takes replacement for ancient woodland to become established. In agreement with Natural England, 8.16 ha of woodland (Woodland Creation Area) would be created to address the loss of 0.68 ha of ancient woodland.
- 7.9.14. The development of the landscape mitigation masterplan, and the mitigation principles adopted, include:

- a. Replacement planting for trees lost during the construction of Part A, including those removed from the Coronation Avenue (between Northgate and Tritlington, mature trees are set within the grass verge, referred to as Coronation Avenue, creating a discernible character to the nature of the view along the road corridor at this section).
- b. Where existing vegetation is removed by the construction of Part A, appropriate planting in the form of woodland, hedgerows, arable field margins and individual trees would be planted in line with the landscape mitigation design (refer to **Figure 7.8: Landscape Mitigation Masterplan, Volume 5** of this ES (**Application Document Reference: TR010041/APP/6.5**)), in order that the vegetative framework of the landscape is replaced/restored.
- c. Planting of native tree and shrub species would be in keeping with local landscape character, refer to **Appendix 7.5: Arboricultural Report, Volume 7** of this ES (**Application Document Reference: TR010041/APP/6.7**)).
- d. Provision of planting belts would provide visual links between existing and proposed vegetation, restoring landscape pattern and land cover as outlined in the **Figure 7.8: Landscape Mitigation Masterplan, Volume 5** of this ES (**Application Document Reference: TR010041/APP/6.5**)).
- e. Reinforce existing woodland blocks to be retained and included within the Order Limits through infill planting. This is restricted to the area of woodland to the east of Part A between chainages 19520 – 20000.
- f. Inclusion of appropriate screen planting to mitigate views of Part A by the Design Year and beyond.
- g. Screen planting around significant road embankments and around junctions to break up the scale of the road and screen structures, traffic and lighting, where it occurs.
- h. Plant stock would be planted using a combination of whips and transplants, with the exception of the replacement trees identified along Coronation Avenue. Here, it is currently proposed to replace trees to be lost to Part A along Coronation Avenue with trees of advanced nursery stock sizes at the time of planting in order to better integrate the replacement plant stock with that of the existing trees.
- i. Bunds subject to planting would have a minimum depth of 300 mm of topsoil laid over formation layers, subject to topsoil availability and to make best use of available topsoil. Topsoil depth will be reduced to a minimum depth of 100 mm in areas of amenity grassland areas. Topsoil will not be used for species rich grassland areas. This depth may be increased and would be confirmed once material quantities are known at detailed design.

7.9.15. The **Landscape Mitigation Masterplan (Figure 7.8, Volume 5** of this ES (**Application Document Reference: TR010041/APP/6.5**)) includes the restoration of habitats, refer to **Table 9-22** in **Chapter 9: Biodiversity** of this ES.

7.9.16. The landscape mitigation masterplan identifies the location of Proposed Environmental Elements associated with Noise and Biodiversity. The following noise barriers, proposed at four locations along the route, would be between 3 m and 4 m in height and would have the potential to give rise to local impacts:

- a. Reflective noise barrier (3 m high and 70 m long) (PNB1).
- b. Reflective noise barrier (4 m high) (PNB2).
- c. Absorptive noise barrier (4 m high) (PNB3).
- d. Noise barrier (3 m high) (PNB4).

- 7.9.17. At PNB4, near Felmoor Park, this barrier would extend circa 500 – 600 m in length and introduce a new landscape feature which would be very visible, and atypical of the existing landscape features in this location. Refer to **Chapter 6: Noise and Vibration** of this ES.
- 7.9.18. Along the length of Part A, there are a number of proposed earth bunds. These are split into those considered as essential mitigation, and those considered as desirable mitigation, which would be within defined Assessment Parameters. Those earth bunds identified as essential mitigation have been identified as No. 1, 2, 7, 8, 9, 10, 11, 12 and 13. The locations of the earth bunds are principally associated with the proposed grade separated junctions.
- 7.9.19. The desirable earth bunds are intended to reduce the visual prominence of the built road elements within view by reducing the height difference of the junction in comparison to that of the adjoining land; providing better landscape integration during early plant establishment and increasing the effectiveness of the associated screen planting at design year.
- 7.9.20. Each earth bund has a proposed maximum height of 4 m, with a slope gradient no greater than 1:3. In addition to landscape integration and screening, the following bunds provide secondary Environmental Functions, listed below:
- a. Bunds 1 and 2 are located directly on top of a foot and mouth burial site. Here the depth of growing material has been increased, in order to avoid, unnecessary ground disturbance within the affected area.
 - b. Bunds 10 – 13 are intended to provide essential barn owl mitigation, beyond those functions noted above.
- 7.9.21. The introduction of these elements would have an impact on the landscape character and visual amenity of the immediate surrounding area, which is assessed **Section 7.10**.

ENHANCEMENT

- 7.9.22. No enhancement measures have been proposed.

7.10. ASSESSMENT OF LIKELY SIGNIFICANT EFFECTS

- 7.10.1. This section sets out the anticipated effects on receptors as a result of Part A and their significance, taking into account the mitigation described above.
- 7.10.2. For the purpose of this assessment only those effects identified as being of moderate significance or greater are assessed as significant.

PREDICTED LANDSCAPE EFFECTS

Construction

- 7.10.3. The following effects likely to result on the perception of landscape character and of those character areas directly affected during construction of Part A:
- a. The loss of landscape features, including hedges, trees and woodland would temporarily open up broader awareness of the landscape. In particular, the removal of some of the trees that make up the Coronation Avenue erodes the distinctive roadside landmark that contributes to the local landscape character.

- b.** Vegetation clearance to facilitate construction is anticipated to occur during the initial mobilisation and subsequent phases, requiring the removal of landscape features that currently contribute to the vegetation cover. Areas of tree clearance may occur as a result of potential safety concerns relating to the windthrow effect. This would be limited to areas of vegetation on the fringes of woodland, particularly associated with plantation woodland. The clearance would result in newly exposed views across the landscape and the construction activity.
- c.** Temporary spoil heaps, material storage, construction vehicle movement, and construction compounds would occur throughout the construction phase, which would generate frequent changes to the perception of the existing A1 and the broader landscape associated with the corridor.
- d.** Construction of Part A and associated built elements including the new River Coquet Bridge, new road junctions, embankments, signage etc, would result in a reduction in the settled appearance and the openness of the landscape, a key feature of the Green Belt designation that covers the southern half of the Study Area. This would particularly be the case for the offline section whereby the changes to the landscape components would modify the existing landscape and introduce a new feature to the landscape.

7.10.4. For construction phase effects on specific landscape character areas, refer to **Appendix 7.1: Landscape Effects Schedule, Volume 7** of this ES (**Application Document Reference: TR010041/APP/6.7**).

7.10.5. It is anticipated, that within LCA 38b Lowland Rolling Farmland – Longhorsley and 35a Broad Lowland Valley – Coquet Valley, which are of moderate landscape sensitivity, medium landscape value and medium capacity to change, and a good landscape quality, the magnitude of impact would be moderate, which would result in **moderate adverse (significant)** direct landscape effects during the construction of Part A.

7.10.6. Landscape effects during the construction phase are predicted within the other LCAs directly impacted, but to a lesser extent, and which would range from **neutral to slight adverse (not significant)** landscape effects.

7.10.7. The effects on landscape character during construction, taking into account the construction mitigation measures outlined in **Section 7.9** are summarised in **Table 7-19**, below.

Table 7-19 - Landscape Character Residual Effects - Construction

| Receptor | Sensitivity | Magnitude of Impact | Significance of Effect |
|--|--------------------|--|---|
| LCA 38b Lowland Rolling Farmland – Longhorsley | Moderate | Moderate | Moderate Adverse Short-term, direct, temporary |
| 35a Broad Lowland Valley – Coquet Valley | High | Moderate (localised High around the new bridge construction) | Moderate Adverse (localised Large Adverse around the bridge construction) |

| Receptor | Sensitivity | Magnitude of Impact | Significance of Effect |
|--|-------------|--|--|
| No.17 Coquet Valley | High | Moderate (localised High around the new bridge construction) | Moderate Adverse (localised Large Adverse around the bridge construction) |
| LCA 38b (1) Lowland Rolling Farmland - Hub of Recreational Activity. | Low | Minor | Slight Adverse |

Operation

Landscape Character Effects

- 7.10.8. Part A would directly impact on five of the fourteen local landscape character areas during construction:
- a. 38b Lowland Rolling Farmland – Longhorsley.
 - b. 35a Broad Lowland Valley – Coquet Valley.
 - c. 35b (2) Broad Lowland Valley – Northgate.
 - d. 38b (1) Lowland Rolling Farmland – Hub of Recreational Activity.
 - e. 17 Coquet Valley (following the same boundary as 35a above within the Study Area of this LVIA).
- 7.10.9. Potential significant landscape effects arising from Part A in the 38b Lowland Rolling Farmland – Longhorsley, 35a Broad Lowland Valley – Coquet Valley and 17 Coquet Valley, are discussed in detail below; at Construction Stage, Winter Year 1, and at Summer Year 15. For full details of the effects on the receiving landscape and on visual amenity, refer to the accompanying **Landscape and Visual Effects Schedules** within **Appendices 7.1 to 7.4, Volume 7** of this ES (**Application Document Reference: TR010041/APP/6.7**) and accompanying photomontages, refer to **Figure 7.11: Photomontages, Volume 5** of this ES (**Application Document Reference: TR010041/APP/6.5**).
- ### Landscape Character Effects – Winter Year 1
- 7.10.10. Part A would directly affect the perception of the landscape character of those LCAs directly impacted by Part A upon completion of the construction phase.
- 7.10.11. The effect would be the formation of a new strong linear feature within a rural setting, particularly the offline section, and a permanent erosion to the sense of the landscape being a tranquil, unspoilt agricultural landscape. This would be at odds with the existing ‘grain’ of the landscape and impose a new and readily perceptible feature.
- 7.10.12. There would be a perceptible reduction in the sense of openness to the west of the existing A1, as a result of the offline section of Part A. The loss of the existing landscape features of hedgerows and trees would be replaced with the new road corridor, associated

embankments, bridges and junctions, reducing intervisibility within the landscape and reducing the perception of openness.

- 7.10.13. Mitigation measures embedded in Part A design (identified in **Figure 7.8: Landscape Mitigation Masterplan, Volume 5** of this ES (**Application Document Reference: TR010041/APP/6.5**)) would contribute to a reduction in the potential significance of the landscape effects on local landscape character, however noticeable changes would remain and the landscape effects associated with the broader A1 corridor and new offline section would remain.
- 7.10.14. It is anticipated, that within LCA 38b Lowland Rolling Farmland – Longhorsley, 35a Broad Lowland Valley – Coquet Valley and 17 Coquet Valley, which are of moderate landscape sensitivity, medium landscape value and capacity to change, and a good landscape quality, the magnitude of impact would be moderate, which would result in **moderate adverse (significant)** landscape effects at the winter of Year 1 of Part A.
- 7.10.15. However, through the construction of the proposed River Coquet Bridge, there would be high levels of magnitude of impact locally, which would result in **large adverse (significant)** landscape effects at the winter of Year 1 of Part A. The bridge has been designed to reflect the same alignment of piers and bridge deck as the existing bridge and would be constructed in parallel to the eastern side of the existing bridge, the bridge would be an additional, large scale, built form within the local landscape of the River Coquet valley.
- 7.10.16. Landscape effects during Year 1 Winter phase are predicted within the other LCAs directly impacted and as landscape sensitivity is low in these character areas the resulting landscape effects would range from **neutral to slight adverse (not significant)**.

Landscape Character Effects – Summer Year 15

- 7.10.17. As above, the identified built elements of Part A would have an effect on the perception of the landscape. However, as the mitigation planting matures over time, and specifically by Year 15 after the implementation of the mitigation planting works, the predicted level of effect would reduce.
- 7.10.18. The establishment of the landscape mitigation strategy would, as it matures, re-establish field boundaries and reduce the effect of the components of Part A, and whilst there would remain some awareness of Part A, the lack of significant development and sense of openness would in part be re-established.
- 7.10.19. It is anticipated, that within LCA 38b Lowland Rolling Farmland – Longhorsley and 17 Coquet Valley, of a moderate landscape sensitivity, medium landscape value and capacity to change, and a good landscape quality, the magnitude of impact would be minor, which would result in **slight adverse (not significant)** landscape effect in the Summer Year 15.
- 7.10.20. Landscape effects during Year 15 Summer are also predicted within 35a Broad Lowland Valley - Coquet Valley, which is of high sensitivity and would be subject to a negligible magnitude of impact, giving rise to a **slight adverse (not significant)** landscape effect, with the new Rover Coquet Bridge being viewed in a more 'settled landscape'.

- 7.10.21. The remaining LCAs directly impacted by Part A would be subject to **neutral (not significant)** landscape effects.
- 7.10.22. The effects on landscape character during operation, taking into account the operation mitigation measures outlined in **Section 7.9** are summarised in **Table 7-20**, below.

Table 7-20 - Landscape Character Residual Effects - Operation

| Receptor | Sensitivity | Magnitude of Impact | | Significance of Effect | |
|--|-------------|---------------------|----------------|-------------------------|----------------|
| LCA 38b Lowland Rolling Farmland – Longhorsley | Moderate | Moderate | Minor | Moderate Adverse | Slight Adverse |
| 35a Broad Lowland Valley – Coquet Valley | Moderate | Minor | Slight Adverse | Negligible | Slight Adverse |
| No.17 Coquet Valley | High | Minor | Negligible | Slight Adverse | Slight Adverse |
| LCA 38b (1) Lowland Rolling Farmland - Hub of Recreational Activity. | Low | Negligible | Negligible | Neutral | Neutral |

Landscape Effects – Night time

- 7.10.23. The elements of Part A that could impact landscape character at night during the construction phase of the works is limited to the illumination of the construction compounds, particularly in winter. Whilst at a local level the illumination of the construction compounds would result in light spill into previously un-lit areas of countryside, within the context of the wider character areas these would not be considered as a significant effect given their scale, and temporary nature.
- 7.10.24. Therefore, whilst the impacted landscape character areas are of high sensitivity in the worst case, the resulting magnitude of impact would be negligible and temporary, resulting in a **neutral (not significant)** effect arising from Part A during the construction and operational phases.

PREDICTED VISUAL EFFECTS

- 7.10.25. Visual effects are the effect of Part A on views experienced by people, and their general visual amenity. The assessment of effects outlines the predicted effects on those receptors identified in the baseline
- 7.10.26. There would be a substantial amount of change to views surrounding the corridor as a result of the construction activities. The visual effects of Part A are detailed in **Appendix 7.2: Viewpoints Visual Effects Schedule, Appendix 7.3: Residential Visual Effects Schedule** and **Appendix 7.4: PRow Visual Effects Schedule, Volume 7** of this ES (**Application Document Reference: TR010041/APP/6.7**).

- 7.10.27. Changing weather patterns and local climatic conditions would influence the visibility of Part A varying from periods of low visibility (fog, low cloud, and bright sunny conditions that are accompanied by haze generated by temperature inversions) to periods of high visibility in clear weather.

Visual Effects on Representative Viewpoints

- 7.10.28. The assessment has identified potential significant visual effects during the construction and operational phases of Part A as described in detail in **Appendix 7.2: Viewpoints Visual Effects Schedule, Volume 7** of this ES (**Application Document Reference: TR010041/APP/6.7**), and summarised in **Table 7-21** below. Significant effects, i.e. effects predicted to be moderate adverse or greater, are predicted from 21 of the 39 representative viewpoints during the construction phase with a majority at the lower end of the scale of moderate adverse. This would reduce upon completion of the construction phase, and early in the operational phase, with 17 of 39 significantly affected. This is anticipated to reduce further as the proposed mitigation strategy and associated planting establishes and reduces the visual intrusion of Part A, the number of significant effects identified in the summer of Year 15 being 6 of 39. Significant effects have been identified in 'bold' in **Table 7-21** below. Effects identified as being slight adverse or less are considered not significant.

Table 7-21 - Significant Visual Effects on Representative Viewpoints

| Viewpoint No | Nature of the Visual Receptor and Sensitivity | Significance of effect – Construction Phase | Significance of effect – Year 1 | Significance of effect – Year 15 |
|--|--|--|--|---|
| VP1 - View looking north, along West View | Nearby residents - High | Moderate Adverse | Slight Adverse | Neutral |
| VP- 3 - View looking north-west towards the start of Coronation Avenue from PRoW (407/010) | Users of PRoW - High | Moderate Adverse | Slight Adverse | Neutral |
| VP-4 - View looking west from Hebron Road within the vicinity of the Church of St Cuthbert | Users of PRoW - High | Large Adverse | Moderate Adverse | Slight Adverse |
| | Road Users - Moderate | Moderate Adverse | Moderate Adverse | Slight Adverse |
| VP-5 – View looking south -west from PRoW (407/018) Beacon Hill | Users of PRoW - High | Moderate Adverse | Moderate Adverse | Slight Adverse |
| | Nearby residents - High | Moderate Adverse | Slight Adverse | Slight Adverse |
| VP-6 – View looking north-west from PRoW (407/018) at Beacon Hill | Users of PRoW - High | Large Adverse | Moderate Adverse | Slight Adverse |
| VP-8 - View looking north-west from PRoW (423/001) at the northern extent of Coronation Avenue | Users of PRoW - High | Moderate Adverse | Moderate Adverse | Moderate Adverse |
| VP-9 - View looking west from south bound bus stop located along existing A1 | Users of PRoW - High | Moderate Adverse | Moderate Adverse | Slight Adverse |
| VP-10 - View looking south-west from PRoW (423/002) at The Farmhouse | Users of PRoW- high | Moderate Adverse | Slight Adverse | Slight Adverse |
| | Nearby residents - high | Moderate Adverse | Slight Adverse | Slight Adverse |
| VP-18 - View looking north-west from PRoW (422/020) | Users of PRoW - High | Moderate Adverse | Slight Adverse | Neutral |
| VP-19 - View looking north from PRoW (422/020) | Users of PRoW - High | Moderate Adverse | Slight Adverse | Slight Adverse |
| VP-20 -View looking south from PRoW (422/020) | Users of PRoW - High | Moderate Adverse | Slight Adverse | Slight Adverse |
| VP-23 - View looking north-east from PRoW (115/016) | Users of PRoW - High | Moderate Adverse | Slight Adverse | Neutral |
| VP-24 - View looking south-east from St Oswald's way | Users of Long Distance Path - High | Large Adverse | Moderate Adverse | Neutral |
| VP-27 - View looking north-east from Howdens Glebe cottages, off West Moor Road | Nearby residents - High | Large Adverse | Moderate Adverse | Moderate Adverse |
| | Road users - Moderate | Large Adverse | Moderate Adverse | Moderate Adverse |
| VP-28 - View looking east from PRoW (422/011) adjacent to Burgham Park Golf and Leisure Club | Road user - Moderate | Moderate Adverse | Moderate Adverse | Slight Adverse |
| VP-29 - View looking north-east from PRoW (422/012) | Users of PRoW - High | Large Adverse | Moderate Adverse | Slight Adverse |
| VP-31 - View looking east from Causey Park Hag/Causey Park Road | Road users - Moderate | Moderate Adverse | Moderate Adverse | Slight Adverse |

| Viewpoint No | Nature of the Visual Receptor and Sensitivity | Significance of effect – Construction Phase | Significance of effect – Year 1 | Significance of effect – Year 15 |
|--|--|--|--|---|
| VP-32 - View looking south-east from PRoW (423/013) | Users of PRoW - High | Large Adverse | Large Adverse | Moderate Adverse |
| VP-33 - view looking south-west from PRoW (423/006) | Users of PRoW - High | Large Adverse | Moderate Adverse | Moderate Adverse |
| VP-36 - View looking east from PRoW (423/001) at Fenrother | Users of PRoW - High | Moderate Adverse | Moderate Adverse | Slight Adverse |
| | Nearby residents - High | Moderate Adverse | Slight Adverse | Neutral |
| VP-37 - view looking north from PRoW (423/001) | Users of PRoW - High | Large Adverse | Large Adverse | Moderate Adverse |

Visual Effects on Occupants of Residential Properties

- 7.10.29. All residents and visitors to settlements and residential properties within the 1 km Study Area are considered to be of high sensitivity which is in accordance with the IAN 135/10 (Ref. 7.28).
- 7.10.30. Individual and specific observations are made concerning views or potential views in the direction of Part A in respect of the relevant properties, and these are set out in **Appendix 7.3: Residential Visual Effects Schedule, Volume 7** of this ES (**Application Document Reference: TR010041/APP/6.7**). This assessment takes all relevant factors into account which could include: the various potential views from the house, the surrounding amenity ground, the access and egress points and the immediately adjacent highway taking the views in the direction of Part A into account along with alternative views which may be available.
- 7.10.31. Significant visual effects would generally occur for occupants of those residential properties within distances of approximately 700 m from Part A, where there are clear views and where highway corridors do not already represent a significant visual detractor. In all, 132 properties / groups of properties, have been assessed via a combination of a site visit to the closest public location in the vicinity of that property (usually the highway), desk based assessment and digital mapping. The findings of the residential assessment are described in detail in **Appendix 7.3: Residential Properties Visual Effects Schedule** in **Volume 7** of this ES (**Application Document Reference: TR010041/APP/6.7**), and the locations shown on **Figure 7.6: Visual Effects Drawing Residential Properties** (within **Volume 5** of the ES (**Application Document Reference: TR010041/APP/6.5**)). The properties which have been identified to have a potential adverse, significant visual effect are identified in **Table 7-20** above.

Construction

- 7.10.32. The assessment of residential views identifies that 30 no. property locations, or groups of properties, would experience a significant visual effect during the construction phase, this is either a significant visual effect from the property itself, or from the access / egress to the property. Half this number (15 no.) would be subject to a significant effect at the upper end of the scale, that being **large adverse (significant)**.

Operation

- 7.10.33. Upon completion of the construction phase, the number of properties, or groups of properties anticipated to be subject to a significant effect would have reduced to 19 no. This is anticipated to have reduced further in the summer of the Design Year, Year 15 to 10 no., all of which are anticipated to be subject to a significant effect at the lower end of the scale, that being **moderate adverse (significant)**.
- 7.10.34. Whilst it is accepted that a number of properties would experience a significant change to a view or views, considering the location of Part A it is not considered that any of these properties would suffer unduly from negative visual effects such as visual over-dominance,

overbearance, or blocking of light, which collectively may affect the overall visual amenity from the residential property. Significant effects have been identified below in ‘**bold**’ in **Table 7-22** below. Effects identified as being **slight adverse or less** are considered **not significant**.

Table 7-22 - Significant Visual Effects on Occupants of Residential Properties

| Ref | Description | Significance of Effect – Construction | Significance of Effect – Year 1 | Significance of Effect – Year 15 |
|------------|--------------------------------|--|--|---|
| R9 | Longfield Cottage | Moderate Adverse | Slight Adverse | Slight Adverse |
| R34 | Thirston New House | Moderate Adverse | Moderate Adverse | Slight Adverse |
| R35 | The Cottage | Large Adverse | Large Adverse | Moderate Adverse |
| R36 | West Moor House | Large Adverse | Large Adverse | Moderate Adverse |
| R37 | West Moor House (4 properties) | Large Adverse | Large Adverse | Moderate Adverse |
| R48 | Causey Park Lodge (North) | Moderate Adverse | Moderate Adverse | Slight Adverse |
| R50 | Causey Park Hag (2 properties) | Moderate Adverse | Moderate Adverse | Slight Adverse |
| R56 | New Build Off Causey Park | Moderate Adverse | Moderate Adverse | Slight Adverse |
| R57 | Four Gables | Moderate Adverse | Moderate Adverse | Slight Adverse |
| R58 | Joiners Cottage | Large Adverse | Large Adverse | Moderate Adverse |
| R59 | The Bungalow | Large Adverse | Large Adverse | Moderate Adverse |
| R60 | Bridge House | Large Adverse | Large Adverse | Slight Adverse |
| R61 | The Oak Inn | Moderate Adverse | Slight Adverse | Slight Adverse |
| R65 | New Houses Farm | Moderate Adverse | Slight Adverse | Slight Adverse |

| Ref | Description | Significance of Effect – Construction | Significance of Effect – Year 1 | Significance of Effect – Year 15 |
|------------|-----------------------------------|--|--|---|
| R68 | Tindale Hill | Large Adverse | Large Adverse | Moderate Adverse |
| R70 | Earsdon Moor Farm | Large Adverse | Large Adverse | Moderate Adverse |
| R71 | Portland House | Moderate Adverse | Moderate Adverse | Moderate Adverse |
| R72 | Welbeck House (2 properties) | Moderate Adverse | Moderate Adverse | Moderate Adverse |
| R73 | The Old School | Moderate Adverse | Slight Adverse | Slight Adverse |
| R78 | Stonebrook Cottage (4 properties) | Moderate Adverse | Moderate Adverse | Slight Adverse |
| R79 | East Fenrother (3 properties) | Moderate Adverse | Moderate Adverse | Slight Adverse |
| R93 | Strafford House | Large Adverse | Moderate Adverse | Moderate Adverse |
| R94 | High Highlaws Cottage | Moderate Adverse | Moderate Adverse | Slight Adverse |
| R95 | High Highlaws | Moderate Adverse | Slight Adverse | Slight Adverse |
| R96 | Capri Lodge | Large Adverse | Slight Adverse | Slight Adverse |
| R97 | Warreners Barns (2 properties) | Large Adverse | Slight Adverse | Slight Adverse |
| R98 | Northgate Farm | Large Adverse | Slight Adverse | Slight Adverse |
| R100 | Warreners Cottages (2 properties) | Large Adverse | Slight Adverse | Slight Adverse |
| R101 | Warreners House | Large Adverse | Slight Adverse | Slight Adverse |
| R102 | Warreners House (2) | Large Adverse | Slight Adverse | Slight Adverse |

Visual Effects on Users of Public Rights of Way

- 7.10.35. Visual assessment of PRow within the detailed Study Area of 1 km (refer to **paragraph 7.6.4**) has been undertaken.
- 7.10.36. There are many public footpaths in the local landscape, including regionally promoted footpaths within the Study Area (refer to **Figure 7.7: Visual Effects Drawing PRow, Volume 5** of this ES (**Application Document Reference: TR010041/APP/6.5**)).
- 7.10.37. Visual effects would generally occur for those recreational routes/PRow within approximately 1 km of Part A where there would be clear views of Part A, however, significant visual effects would typically be experienced within 0 - 600 m distance of the centre line of Part A.
- 7.10.38. The visual effects that would be experienced by the WCH using these routes are described in **Appendix 7.4: PRow Visual Effects Schedule, Volume 7** of this ES (**Application Document Reference: TR010041/APP/6.7**). The assessment of the effects on these receptors has been undertaken through site work, desk study, ZTV mapping and professional judgement based on knowledge and experience of similar schemes.

Construction

- 7.10.39. A total of 10 PRow have been identified as being subject to a significant effect during the construction phase, of these 9 would be at the upper end of the scale and be subject to a **large adverse** effect. The users of the remaining 6 PRow would be subject to a **moderate adverse** effect.
- 7.10.40. Where a PRow would be severed by Part A, it is assumed that the PRow would be closed at the commencement of, and for the duration of, the construction phase of the works, until such time as the diverted PRow can be opened in its place. Where a PRow is being permanently closed (PRow 423/007), the closure would occur at the commencement of the construction phase and no further assessment has been carried out.
- 7.10.41. PRow No. 407/010; 423/001; 423/006; 423/013; 422/020; 115/008; 115/016 and St Oswald's Way are directly impacted by Part A, preventing the original alignment being used, and would be closed for part or all of the construction phase. PRow 423/007 would be permanently closed. As a result, these PRows have not been assessed during the construction phase of the works.

Operation

- 7.10.42. Upon completion of the construction phase the users of 5 PRow would be subject to a significant effect, 4 of these at the upper end of the scale and subject to a **large adverse** effect. The users of the remaining 5 PRow would be subject to a **moderate adverse** effect.
- 7.10.43. Upon the establishment of the mitigation strategy, the number of PRow, whose users would be subject to a significant effect would reduce, with 3 subject to a significant effect at the lower end of the scale, **moderate adverse**.

7.10.44. The associated sensitivity of these receptors is considered to be high. Significant effects have been identified below in **'bold'** in **Table 7-23** below. Effects identified as being **slight adverse or less** are considered **not significant**.

Table 7-23 - Significant Effects on Users of Public Rights of Way

| PRoW Ref | Closest distance to the Part A (m/km) | Significance of Effect – Construction | Significance of Effect – Year 1 | Significance of Effect – Year 15 |
|---|---|--|--|---|
| 407/010 Footpath / Bridleway | 100 m | Moderate Adverse | Slight Adverse | Neutral |
| 407/018 Footpath | On the boundary of the A1 road | Large Adverse | Large Adverse | Slight Adverse |
| 423/001 Footpath | Crosses the A1 road west to east | Large Adverse | Large Adverse | Moderate Adverse |
| 423/002 Footpath | 500 m | Large Adverse | Slight Adverse | Slight Adverse |
| 423/006 Footpath | Crosses the A1 road west to east | Large Adverse | Large Adverse | Moderate Adverse |
| 423/011 Footpath | 1 km | Large Adverse | Slight Adverse | Slight Adverse |
| 423/013 Footpath | On the boundary of the A1 road and crosses the route of the new offline section | Large Adverse | Large Adverse | Moderate Adverse |
| 422/020 Footpath | On the boundary of the A1 road | Large Adverse | Slight Adverse | Neutral |
| 115/016 Footpath | On the boundary of the A1 road | Large Adverse | Slight Adverse | Neutral |
| St Oswald's Way – Regionally Promoted Route | On the boundary of the A1 road | Large Adverse | Moderate Adverse | Neutral |

Visual Effects on Users of Commercial and Community Facilities

7.10.45. Visual assessment of commercial and community facilities within 1 km of Part A has been undertaken (refer to **paragraph 7.6.4**). The assessment of the potential effects on these facilities has been assisted by the use of site assessment and ZTV mapping.

Construction

7.10.46. Significant visual effects during the construction phase would generally occur for 3 commercial and community facilities that occupy locations that are adjacent to, or in close proximity to Part A, and subject to impacts associated with the construction of Part A and prior to the establishment of appropriate mitigation planting.

Operation

7.10.47. Upon completion, 2 commercial receptors would remain subject to a significant effect, although at the lower end of the scale, that being moderate and adverse. A single community receptor (Tritlington Church of England First School) would, upon completion of the Fenrother Junction and tie in with the existing A1 be subject to an effect of **slight adverse (not significant)**.

7.10.48. The significant visual effects that would be experienced by visitors and workers, including pupils, at the commercial and community facilities are described below in **Table 7-24**. The sensitivity of all these receptors is considered to vary between moderate and low. In the summer of the Design Year, and the successful establishment of the mitigation planting measures, no receptors associated with commercial or community facilities are anticipated to be subject to a significant effect.

Table 7-24 - Significant Effects on Users of Commercial / Community Facilities

| Description | Significance of Effect – Construction | Significance of Effect – Year 1 / Operation | Significance of Effect – Year 15 |
|--|---------------------------------------|---|----------------------------------|
| Oak Inn (Public House) | Moderate Adverse | Moderate Adverse | Slight Adverse |
| Tritlington Church of England First School | Moderate Adverse | Slight Adverse | Neutral |
| Jackson G K and Sons garage | Moderate Adverse | Moderate Adverse | Slight Adverse |

Visual Effects at Night Time

7.10.49. The temporary construction compounds would include lighting. There may also be lighting of construction areas when it is dark during site working hours to ensure site safety.

However, as they are of a temporary nature, effects on nearby receptors are not anticipated to be significant.

- 7.10.50. The operational elements of Part A that give rise to potential visual effects at early evening/night, during operational Year 1, the opening year, is limited to the replacement lighting columns at West View and light pollution from vehicle movement along the road corridor, partially along the offline section of Part A.
- 7.10.51. Whilst the location of the lighting columns at West View would be revised following the relocation of columns to accommodate the proposed widening of the carriageway directly in front of the properties and the provision of parking bays, the number of columns themselves would not increase. As such, the impact of the proposed lighting at West View, is considered to be of negligible magnitude of impact, due to being considered as a like for like replacement for the purpose of this assessment, which would result in a **slight adverse (not significant)** visual effect.
- 7.10.52. Light pollution from vehicle movement along the road corridor would be more pronounced during early plant establishment, affecting both the online and offline section of Part A. Where existing vegetation is removed, principally to the west of the existing carriageway, light pollution from vehicle lights travelling along the road corridor would be more intrusive in the short term, than that at present, within the immediate environment.
- 7.10.53. Similarly, prior to plant establishment, on either side of the offline section of Part A, vehicle movement at junctions would be noticeably more pronounced in the short term, given their elevation within the landscape. However, given the temporary nature of the impact and the likelihood that vehicle numbers using the junctions would be of a reduced number (in comparison to that of the mainline route), the magnitude of the impact is likely to be minor, at worst, which would result in a **slight adverse (not significant)** visual effect.
- 7.10.54. Part A would actively reduce the intrusive nature of light pollution from vehicle movement, along the de-trunked section of the A1.
- 7.10.55. Whilst at a local level the illumination would result in light spill into previously un-lit areas of countryside, along the offline section of Part A, within the context of the wider character areas these would not be considered as significant given their scale, in combination with the presence of existing roads within the wider character area generating similar effects, reducing overall magnitude of change.
- 7.10.56. Therefore, there are no significant night time visual effects arising from Part A, during the operational Year 1, the opening year.
- 7.10.57. There are no significant night time visual effects arising from Part A, at the Design Year, Year 15, of the Scheme.

ASSESSMENT PARAMETERS

- 7.10.58. The Assessment Parameters are presented in **Chapter 2: The Scheme, Volume 1** of this ES (**Application Document Reference: TR010041/APP/6.1**).

7.10.59. The implications for Part A design and this assessment are set out in **Table 7-25** below.

Table 7-25 - Consideration of Assessment Parameters

| Assessment Parameters | Brief Description | Justification |
|-----------------------|--|---|
| Parameter 1 | <p>A 1 m horizontal increase of the permanent boundary either side of the main Part A alignment between Warreners House and Trafford House to accommodate the uncertainty of statutory undertaker's underground apparatus.</p> <p>In addition, a 3-4 m horizontal increase of the permanent boundary either side of the main Part A alignment between Highlaws Junction and Priest's Bridge, to accommodate the uncertainty of statutory undertaker's underground apparatus and the removal of hedgerow, and reinstatement of 2 m wide hedgerow and replacement of Coronation Avenue trees set within the hedgerow, if required.</p> | <p>Unlikely to alter the conclusions of this chapter. The change to overall significance of effect would be negligible, post early operational phase.</p> <p>Where it is identified that additional sections of hedgerows would be lost to Part A, beyond those shown upon Figure 7.9: Vegetation Clearance Plan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5), there would be an increase in the visual awareness of the road corridor and associated vehicle movements, resulting in a temporary increase of adverse effects as a result of Part A and prior to re-establishment of the removed hedgerows.</p> <p>In all instances where additional hedgerow removal, and Coronation Avenue Tree removal, are required in order to facilitate the construction of Part A, replacement mitigation hedgerow planting would be carried out, as close as possible to its former alignment, resulting in a like for like replacement of landscape elements in the long term.</p> <p>It is currently anticipated that potential further hedgerow removal, would be required between Chainage 10900 – 13200, to the east of Part A, beyond that currently shown, resulting in an increase to the degree of effect from the following visual receptors.</p> <ul style="list-style-type: none"> - Trafford House. - Users of PRow 407/018. <p>In the short term, following the removal of screen planting originally assessed as being retained, the magnitude of impact to the nature of the view would increase within those affected areas. All effects would be adverse in nature, with the significance of effect reducing over time as the replacement plant establishes.</p> <p>Should Parameter 1 be identified as being required, it is not considered likely that the parameter would give rise to a change in the overall significance of effects as presented in this chapter.</p> |
| Parameter 2 | <p>Relocation of the proposed Highlaws Junction approximately 47 m to the north of current location (horizontal parameter only) in order to avoid the existing foot and mouth burial pit at approximate Grid Reference NZ 18293 89738.</p> | <p>Unlikely to alter the conclusions of this chapter. The change to the significance of effect would be negligible.</p> <p>If Highlaws Junction was to be realigned approximately 47 m to the north of its current location, there would be little to no perceptible change in the magnitude of impacts identified upon those receptors associated within the affected area.</p> <p>Should Parameter 2 be identified as being required, it is considered likely that the change would not give rise to a substantial change in the overall significance of effects as presented in this chapter.</p> |
| Parameter 3 | <p>Increase in height of the proposed Fenrother Junction by an additional 1 m and increased in width of the junction by 4 m (and to the mainline carriageway to the south and north).</p> | <p>Unlikely to alter the conclusions of this chapter. The change to the significance of effect would be negligible and restricted to a localised number of visual receptors.</p> <p>The parameter would have a negligible increase in the magnitude of impact on those visual receptors located within the immediate vicinity. This includes those residential properties recreational users of the PRow, and Tritlington Church of England First School.</p> <p>The nature of the view would not significantly change as a result of a further 1 m increase to the vertical height of the junction, and thus the parameter would not result in a change to the overall significance of effects as presented in this chapter.</p> |
| Parameter 4 | <p>Proposed slackening of slopes to reduce the amount of excavated material disposed of off-site, as identified within Chapter 2: The Scheme, Volume 1 of this ES</p> | <p>Unlikely to alter the conclusions of this chapter. The change to the significance of effect would be negligible.</p> <p>The proposed slackening of slopes would result in a slight beneficial change to the magnitude of the visual impact within the affected area, due to providing better visual integration with the adjoining landscape.</p> |

| Assessment Parameters | Brief Description | Justification |
|-----------------------|---|--|
| | <p>(Application Document Reference: TR010041/APP/6.1).</p> | <p>The proposed slackening of the slopes from a gradient of 1:3 to that as shown would result in a slight reduction to the magnitude of impact from the following locations.</p> <ul style="list-style-type: none"> - From windows located within the rear of Highlaws Cottages. - Felmoor Park. - Users of PRow 423/013. - Road users on approach to Causey Park Overbridge, along both sides of the carriageway. - Users of Felton Road, when approaching West Moor junction, from the east. |
| Parameter 5 | <p>Provision of 2m high earth bunds for the purposes of using excess material likely to be generated as a result of Part A, in addition to those considered essential mitigation as discussed in Section 2.6 of Chapter 2: The Scheme, Volume 1 of this ES (Application Document Reference: TR010041/APP/6.1).</p> <p>Proposed bund 3: To the east of Highlaws Junction.</p> <p>Proposed bund 4: To the west of Detention Basin (DB) 4.</p> <p>Proposed bund 5: At Priest's Bridge between chainages 13680 and 14100. Increase in soil depth of 2 m across the indicated area.</p> <p>Proposed bund 6: To the west of the main Part A route alignment at chainage 14200.</p> <p>Proposed bund 14: To the south-east of West Moor Junction.</p> | <p>Unlikely to alter the conclusions of this chapter. The change to the significance of effect would be negligible.</p> <p>The inclusion of earth bunds at the following locations would reduce the degree of adverse change on the visual receptors within the affected area:</p> <p>No. 3 - to the east of Highlaws Junction, would reinforce the capacity of woodland to screen views during the establishment phase from the east, (Receptors 89 and 90) and north east and Hebron Hill (Receptors 87 and 88), resulting in the capacity to deliver screening in advance of the Design Year, Year 15.</p> <p>No.4 - to the west of detention basin No.4, would provide some enhancement to the capacity of associated woodland to achieve integration in advance of the Design Year, Year 15.</p> <p>No.5 - increase in soil depth of 0.5 m across the indicated area, between Ch 13600 – 14100, to the west of the mainline at Priest's Bridge, would marginally lift ground levels locally, and provide deeper soil depths to an area of woodland planting, encouraging establishment and vigour in woodland establishment aimed at landscape integration.</p> <p>No.6 – to the west of the main line at CH 14200, would provide some enhancement to the capacity of associated woodland to achieve integration in advance of the Design Year, Year 15.</p> <p>No.14 - to the south-east of West Moor Junction; would reinforce the capacity of woodland to screen views during the establishment phase from the west, (Receptor 65), resulting in the capacity to deliver screening in advance of the Design Year, Year 15.</p> <p>Should Parameter 5 be identified as being required, it is considered likely that the change would not give rise to a substantial change to the overall significance of effects as presented in this chapter.</p> |
| Parameter 6 | <p>1.5 m horizontal parameter of the proposed Priest's Bridge Culvert to accommodate drainage.</p> | <p>Unlikely to alter the conclusions of this chapter. The change to the significance of effect would be negligible.</p> <p>Should Parameter 6 be identified as being required, it is considered likely that the change would not give rise to a substantial change to the overall significance of effects as presented in this chapter.</p> |
| Parameter 7 | <p>20 m horizontal parameter for the proposed DB9 located at approximate chainage 16900, allowing for it to be moved to the north.</p> | <p>Unlikely to alter the conclusions of this chapter. The change to the significance of effect would be negligible.</p> <p>Should Parameter 7 be identified as being required, it is considered likely that the change would not give rise to a substantial change to the overall significance of effects as presented in this chapter.</p> |
| Parameter 8 | <p>Movement of underground gas pipe at approximate chainage 19100 slightly further south to approximate chainage 19080, to accommodate the proposed culvert for the overland flow path south of Burgham Park Underbridge.</p> | <p>Unlikely to alter the conclusions of this chapter. The change to the significance of effect would be negligible.</p> <p>Should Parameter 9 be identified as being required, it is considered likely that the change would not give rise to a substantial change to the overall significance of effects as presented in this chapter.</p> |

| Assessment Parameters | Brief Description | Justification |
|-----------------------|--|--|
| Parameter 9 | Proposed bund located along the western edge of the proposed Main Compound at West Moor Junction, to temporarily stockpile surplus material for use on Part B. | <p>Unlikely to alter the conclusions of this chapter. The change to the significance of effect would be negligible.</p> <p>It is currently proposed that the excess material be stored within topsoil storage area No. 11. Given the proximity of the topsoil storage area to the proposed northern construction compound, the temporary impact associated with these stockpiles would be negligible, due to being seen as a continuation of the construction compound, which has already been assessed in terms of impacts on the landscape and visual amenity.</p> <p>Due to the stockpiled material being used for the construction of Part B it is anticipated that these stockpiles would be stored on site, for a duration beyond that of the construction phase associated with Part A.</p> |
| Parameter 10 | An ability to move the proposed River Coquet bridge northern pier by up to 6 m to the north, and the southern pier by up to 2 m to the north. An ability to further move the proposed piers by 2 m in any other direction, and with 5 m around the proposed northern abutment and with 2 m around the southern abutment. The currently proposed pier construction methodology would not alter with this potential movement of the piers. | <p>Unlikely to alter the conclusions of this chapter. The change to the significance of effect would be negligible.</p> <p>Should Parameter 10 be identified as being required, it is considered likely that the change would not give rise to a substantial change to the overall significance of effects as presented in this chapter.</p> |
| Parameter 11 | Vertical change of between 1 m and 1.8 m in the parapet height on overbridges to accommodate a change in Walkers, Cyclists and Horse-riders (WCH) use. | <p>Unlikely to alter the conclusions of this chapter. The change to the significance of effect would be negligible.</p> <p>The potential minor increase in parapet heights on overbridges to accommodate a change in WCH use of between 1 and 1.8 m would represent a perceptible increase in height of the profile of the bridges, however the nature of the design of the parapets could be designed so to avoid solid parapet types and therefore be unlikely to substantially modify the findings of the assessment of the visual amenity and landscape character.</p> |
| Parameter 12 | A 10 m horizontal parameter to the permanent highway boundary at Parkwood embankment (approximate chainage 23000) to allow for a berm on the embankment. | <p>Unlikely to alter the conclusions of this chapter. The change to the significance of effect would be negligible.</p> <p>Minor revision to boundary alignment. Should Parameter 12 be identified as being required, it is considered likely that the change would not give rise to a substantial change to the overall significance of effects as presented in this chapter.</p> |

UPDATED DMRB GUIDANCE

- 7.10.60. The DMRB sensitivity test as described in **Section 7.4** has determined that the application of the updated guidance (**Ref 7.31**) would not change the likely significance of effects and therefore the conclusions of the assessment remain unchanged. The findings of the sensitivity test are set out in detail in **Appendix 4.5: DMRB Sensitivity Test, Volume 1** of this ES (**Application Document Reference: TR010041/APP/6.1**).
- 7.10.61. The updated guidance, has been revised so that it now, corresponds more closely with industry best practise guidance as outlined within GLVIA3 (**Ref 7.29**). Terminology has been updated to include Zone of Theoretical Visibility, where plans have been produced digitally. While the methodology approach as described within this ES predominantly relates to (IAN) 135/10 (**Ref 7.26**), where relevant, the methodology was brought in line with GLVIA3 (**Ref 7.29**), due to being printed post IAN 135/10. As such the ZTV within the report has already been described as ‘theoretical’ due to being computer generated.
- 7.10.62. Those more significant changes relating to methodology as noted within LA 107 (**Ref. 7.31**) include:
- a. the addition of a new level of very high sensitivity specifically related to views from and of major tourist attractions, very important national/international landscapes and cultural/historical sites and for receptors engaged in specific activities for enjoyment of dark skies.
 - b. removes consideration of individual residential receptors and replaces it with “residential areas” and, in doing so reduces the level of sensitivity to be assigned to ‘less populated residential areas” (LA 107 moderate, where in IAN135/10 all residential receptors were deemed to be of high sensitivity).
- 7.10.63. There are no visual receptors associated with Part A, that would fall under this classification of ‘very high’ sensitivity and thus the assessment remains unaltered as a result.
- 7.10.64. A strict interpretation of LA 107 could lead to a lower level of significance of effect being found for individual scattered residential receptors and small settlements. However, this is unlikely to change the findings of the overall assessment.
- 7.10.65. Overall, it is considered unlikely that these revisions to the guidance would change the overall findings of the assessment.

7.11. MONITORING

- 7.11.1. In order to ensure that the Landscape Elements identified on **Figure 7.8: Landscape Mitigation Masterplan, Volume 5** of this ES (**Application Document Reference: TR010041/APP/6.5**) fulfil their Environmental Function, as specified in **Section 7.9**, the proposed planting would be supplied, planted and maintained in accordance with:
- a. Manual of Contract Documents for Highways Works, Series 3000 planting specification, as amended to suit site-specific conditions.
 - b. Construction Environmental Management Plan.

- c. Landscape Management Plan.
- d. Ancient Woodland Strategy.
- e. Where applicable information contained within the species-specific method statements to accompany the project specific European Protected Species Licenses, refer to **Chapter 9: Biodiversity** of this ES.

- 7.11.2. Maintenance inspections would be undertaken on a regular basis during the maintenance period following Scheme completion, to review the effectiveness of the proposed Landscape Elements in meeting their Environmental Functions.
- 7.11.3. Inspection visits would review plant and seeding maintenance and establishment. During each inspection, records would be made of the standard of work undertaken, general plant health and obvious signs of disease or plant stress. At the autumn inspection the number of plant failures would be recorded, and the extent of replacement planting agreed with the main contractor. Where plants have failed, replacement planting would be carried out in the following planting season.
- 7.11.4. In accordance with Manual of Contract Documents for Highways Works (MCHW), Volume 1 Specification for Highways Works, Series 3000 Landscape and Ecology (**Ref. 7.37**) and Manual of Contract Documents for Highways Works (MCHW), Volume 2 Notes Guidance on the Specification for Highways Works, Series 3000 Landscape and Ecology (**Ref. 7.38**), a five year maintenance and establishment period is considered appropriate for a scheme of this scale, where planting is considered as being essential mitigation.
- 7.11.5. For the remainder of the 15-year design phase, monitoring surveys would be undertaken to review the success of the landscape mitigation and identify any areas where mitigation commitments have not been met. The reviews should identify any management works required to ensure the longer-term success of the landscape elements and identify measures or develop proposals to rectify any areas where a commitment is not being met, such as through any replacement planting.
- 7.11.6. A periodic review of agreed viewpoints (as detailed in **Table 7-17**) are carried out during the 15 year design phase, to confirm that views associated with Part A have been mitigated in line with the findings of this assessment.
- 7.11.7. As part of this, the following viewpoints should be revisited to confirm that the effects on views arising from Part A have been adequately mitigated:
- a. **Viewpoint 5:** View looking south-west from PRoW (407/018) at Beacon Hill.
 - b. **Viewpoint 9:** View looking west, at south bound bus stop along existing A1.
 - c. **Viewpoint 16:** View looking north-west from PRoW 422/020.
 - d. **Viewpoint 25:** View looking south-east from junction of PRoWs 422/002, 422/001 and 115/013.
 - e. **Viewpoint 28:** View looking east from PRoW (422/011) adjacent to Burgham Park Golf and Leisure Club.
 - f. **Viewpoint 31:** View looking east from Causey Park Hag / Causey Park Road.

g. Viewpoint 36: View looking east from Fenrother from PRoW 423/001.

- 7.11.8. The above viewpoints have been selected on the basis that they are representative of the occupants for residential properties, users of Public Rights of Way, or visitor attractions where the view and setting are intrinsic to the visitor's experience; and where the view would be mitigated as a result of the establishment of vegetation.
- 7.11.9. It is recommended that these surveys should be undertaken at approximately five yearly intervals as follows:
- a. Operational Year 5** (Summer) – at the end of the establishment phase, when the initial growth of the proposed mitigation planting has occurred, and an initial review of the speed by which plant establishment is taking effect, can be assessed, in order to meet the required levels of screening.
 - b. Operational Year 10** (Summer) – midway interval, between the initial review and the proposed final assessment.
 - c. Operational Year 15** (summer) – end of the design period considered within the assessment. To review and confirm the findings of the assessment.
- 7.11.10. Planting would not provide substantial screening in year 5, as the majority of nursery stock would be planted at transplant size (less than 1m in height) and would have grown to less than 3 metres tall in five years. The above five yearly surveys would allow for the replanting of any mitigation planting that is missing, has died or, in the opinion of the Applicant, is failing to make satisfactory extension growth to be replaced. Replanting would take place in the next growing season and should be same as original stock at the time of planting.
- 7.11.11. The requirement for these surveys and the undertaking of any necessary management or remedial work would be included in the Handover Environmental Management Plan (HEMP) which would be developed from the CEMP. The HEMP would address any mitigation planting / replacement beyond the 5-year establishment period (years to 6 to 15). As a result, there is a high degree of confidence that the mitigation would be secured by year 15 and the impacts would be in line with those predicted within this chapter.

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