

A1 Birtley to Coal House

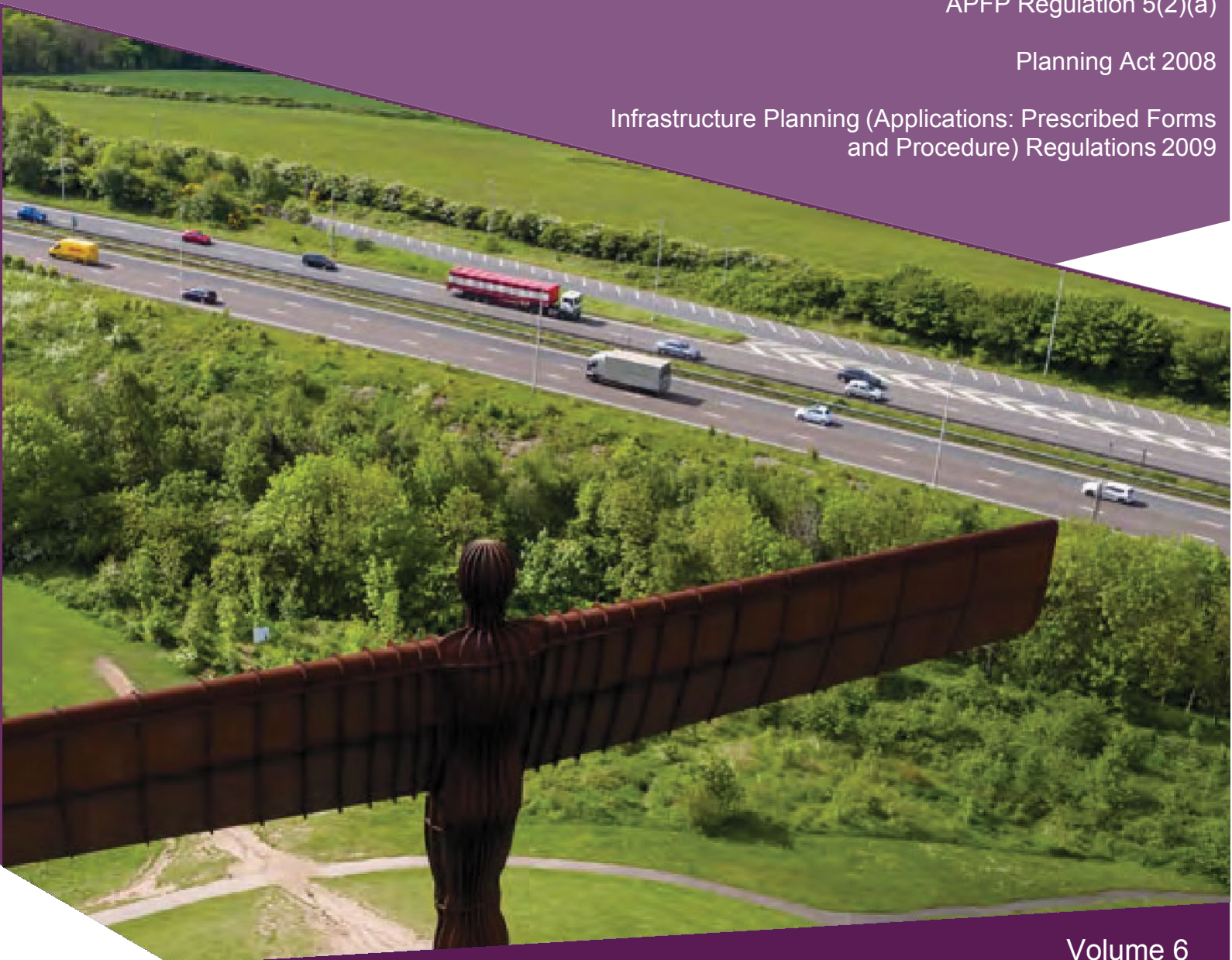
Scheme Number: TR010031

6.1 Environmental Statement Chapter 6 Cultural Heritage

APFP Regulation 5(2)(a)

Planning Act 2008

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



Infrastructure Planning

Planning Act 2008

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

**A1 Birtley to Coal House
Development Consent Order 20[xx]**

Environmental Statement

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6 CULTURAL HERITAGE

6.1 INTRODUCTION

- 6.1.1. This chapter presents the assessment of likely significant environmental effects as a result of the Scheme on cultural heritage assets. These have been considered under the sub-headings of archaeology remains, built heritage and settings of heritage assets. It is supported by a Historic Environment Desk-based Assessment (HEBDBA) **Appendix 6.1** of this Environmental Statement (ES) (**Application Document Reference TR010031/APP/6.3**), a Walkover Survey (**paragraph 6.7.27**), Geophysical Survey (**Appendix 6.2 (Application Document Reference: TR010031/APP/6.3)**) and a survey of the retaining wall associated with Bowes Railway Scheduled Monument (SM) (**Appendix 6.3 (Application Document Reference: TR010031/APP/6.3)**). An updated gazetteer of heritage assets based on the Scheme design is presented in **Table 6-10** and **Table 6-11**.
- 6.1.2. A full description of the Scheme is described in **Chapter 2 The Scheme** of this ES (**Application Document Reference: TR010031/APP/6.1**).

Allerdene Bridge Options

- 6.1.3. Two design options are currently under consideration for Allerdene Bridge: Allerdene embankment option and Allerdene viaduct option. The assessment of likely significant environmental effects, and design mitigation and enhancement measures should be considered to be the same for each option unless they are identified separately.
- 6.1.4. In the cultural heritage desk-based assessment the difference between Allerdene embankment option and Allerdene viaduct option, as detailed in **paragraphs 2.7.11 to 2.7.18** of this ES, does affect the assessment. Both Allerdene embankment option and Allerdene viaduct option would have impacts on the settings of designated heritage assets and the two options have been assessed separately. There would be no difference between the options for the predicted physical impacts on heritage assets.

6.2 COMPETENT EXPERT EVIDENCE

- 6.2.1. **Table 6-1** demonstrates that the professionals contributing to the production of this ES chapter have sufficient expertise to ensure the completeness and quality of this assessment.

Table 6-1 - Cultural Heritage professional competence

Name	Role	Qualifications and Professional Membership	Experience
Elizabeth Murray	Author	BA (Hons) Archaeology	Five years of relevant Environmental Impact Assessment (EIA) experience

Name	Role	Qualifications and Professional Membership	Experience
		Associate of the Chartered Institute for Archaeologists (ACIfA)	<ul style="list-style-type: none"> – Heritage specialist on M3 Junction 9 – Heritage specialist on A30 Carland Cross to Chiverton – Heritage specialist on M271 Redbridge Roundabout
Alison Plummer	Reviewer	BSc (Hons) Heritage Conservation Member of the Chartered Institute for Archaeologists (MCIfA)	10 years of relevant EIA experience. Project examples include: <ul style="list-style-type: none"> – Technical lead of M2 J5 Environmental Assessment – Technical lead of the A27 Arundel Assessment – Technical lead of the A27 Worthing and Lancing Assessment

6.3 LEGISLATIVE AND POLICY FRAMEWORK

6.3.1. The applicable legislative and policy framework is summarised below. Further details are presented in **Appendix 6.1** of this ES (**Application Document Reference: TR010031/APP/6.3**).

LEGISLATION

National

Ancient Monuments and Archaeological Areas Act (AMAA) 1979

6.3.2. The Ancient Monuments and Archaeological Areas Act 1979 largely relates to Scheduled Monuments. Section 61 defines sites that warrant protection due to their being of national importance as 'ancient monuments'. A monument is defined by the Act as "*any building, structure or work above or below the surface of the land, any cave or excavation; any site comprising the remains of any such building, structure or work or any cave or excavation; and any site comprising the remains of any vehicle, vessel or aircraft or other movable structure or part thereof.*"

6.3.3. Section 61 of the Act states that deliberate damage to a monument is a criminal offence and any works taking place within one would require Scheduled Monument Consent from the Secretary of State (SoS).

Planning (Listed Buildings and Conservation Areas) Act 1990

6.3.4. Section 1 of the Planning (Listed Buildings and Conservation Areas) Act defines a listed building as a “*building which is for the time being included in a list compiled or approved by the SoS under that section*”. For the purpose of the Act, any object or structure fixed to the building, which, since on or before 1 July 1948, has formed part of the land and is comprised within the curtilage of the building is treated as part of the building. 'Building' is defined as including any structure or erection and any part of a building'. The key elements of this Act relevant to this assessment are outlined below:

- a. Section 66 places a responsibility upon the decision-maker in determining applications for planning permission for a Scheme that affects a listed building or its setting to have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses; and
- b. Section 72 of the Act places a duty upon the decision maker in determining applications for planning permission within conservation areas to pay special attention to the desirability of preserving or enhancing the character or appearance of that area.

The Infrastructure Planning (Decisions) Regulations 2010

6.3.5. Regulation 3 of the Infrastructure Planning (Decisions) Regulations 2010 sets out the obligations on the SoS when deciding applications for development consent under the Planning Act 2008 affecting listed buildings (or their settings), conservation areas (CA) or scheduled monuments (or their settings). The obligations are:

- a. When deciding an application which affects a listed building or its setting, the SoS must have regard to the desirability of preserving the listed building or its setting or any features of special architectural or historic interest which it possesses;
- b. When deciding an application relating to a conservation area, the SoS must have regard to the desirability of preserving or enhancing the character or appearance of that area; and
- c. When deciding an application for development consent which affects or is likely to affect a Scheduled Monument or its setting, the SoS must have regard to the desirability of preserving the Scheduled Monument or its setting.

POLICY

National

6.3.6. National policy relevant to the potential effects on Cultural Heritage is outlined in **Table 6-2**.

Table 6-2 - Relevant national policy

Policy	Relevant Policy Objectives	Significance of impact of the Scheme on policy objective
<p>National Policy Statement for National Networks (NPS NN) (2014) (Ref 6.1)</p>	<p>The Historic Environment is referred to in paragraphs 5.120 and 5.142 of the NPS NN as follows:</p> <p>The construction and operation of national networks infrastructure has the potential to result in adverse impacts on the historic environment (DCLG, 2014, 5.120).</p> <p>Where the proposed development will lead to substantial harm to or total loss of significance of a designated heritage asset, consent should be refused unless it can be demonstrated that the substantial harm or loss of significance is necessary in order to deliver substantial public benefits (DCLG, 2014, 5.133).</p> <p>Further, the impact of a proposed development on the significance of a designated heritage asset, should consider the asset’s conservation. The more important the asset, the greater the weight should be, particularly as once lost, heritage assets cannot be replaced. Significance can be harmed/lost through alteration or destruction of setting. Any such alteration should require clear and convincing justification. For instance, substantial harm/loss of Scheduled Monuments should be wholly exceptional. Where there is a high probability that a development site may include as yet undiscovered heritage assets with archaeological interest, there should be requirements to ensure that appropriate procedures are in place for the identification and treatment of such assets discovered during construction (DCLG, 2014, 5.131).</p>	<p>The HEDBA indicated that there is a potential for unknown buried archaeological assets from the Prehistoric Period onwards to be present within areas of undisturbed land within the Scheme Footprint. However, the geophysical survey of Scheme land take did not detect any archaeological anomalies (Appendix 6.2 of this ES (Application Document Reference: TR010031/APP/6.3)).</p> <p>A walkover survey was undertaken at the site of Lamesley Wagonway (HER4124), which identified the presence of the surviving remains of the wagonway, as well as revealing the presence of 19th century pottery within ploughed soil and possible traces of ridge (paragraph 6.7.27).</p> <p>Physical harm to retaining walls associated with the Bowes railway was mitigated by a programme of archive building recording (Salford Archaeology 2018). In accordance with NPS NN (para 5.140), preservation by archive recording in advance</p>

Policy	Relevant Policy Objectives	Significance of impact of the Scheme on policy objective
		<p>provides an understanding of the significance of the asset, its importance and impact.</p>
<p>National Planning Policy Framework (NPPF) (2019) (Ref 6.2)</p>	<p>Section 16 of the NPPF addresses Conserving and Enhancing the Historic Environment.</p> <p>One of the core planning principles of the NPPF as prescribed in paragraph 184 is that the planning system should conserve heritage assets “in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of existing and future generations”.</p>	<p>In order to widen the road it is necessary to remove part of the retaining walls associated with Bowes Railway SM.</p> <p>The HEDBA Appendix 6.1 of this ES (Application Document Reference: TR010031/APP/6.3) considered the significance of heritage assets that the Scheme would impact upon. In agreement with Historic England (paragraph 6.3.28) this resulted in the archaeological archive recording of the retaining wall associated with Bowes Railway. In accordance with NPPF (para 199), preservation by archive recording in advance provides an understanding of the significance of the asset, its importance and impact.</p> <p>In consultation with the Tyne and Wear Archaeology Officer at Newcastle City Council, it was agreed to investigate the archaeological</p>

Policy	Relevant Policy Objectives	Significance of impact of the Scheme on policy objective
		<p>potential of land within the footprint of the proposed site compound to the north of the A1 and the footprint of temporary land take between Bowes Railway SM and the Bowes Incline Hotel. This comprised a geophysical survey Appendix 6.2 of this ES (Application Document Reference: TR010031/APP/6.3). The geophysical survey was carried out for most of the identified land area (approximately 75%). One field was not surveyed due to not being able to secure gain land access whilst another area was not suitable due to the presence of dense vegetation.</p>
<p>NPPF (2019)</p>	<p>Paragraph 189 of the NPPF states that applicants should describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. The paragraph outlines that as a minimum, the relevant historic environment record should be consulted and heritage assets assessed using appropriate expertise, where necessary.</p>	<p>Section 6.8 presents a description of the significance of heritage assets, including the contribution of their setting to that significance.</p>
<p>NPPF (2019)</p>	<p>Paragraphs 193 to 194 state that <i>“proposed development on the significance of a</i></p>	<p>No substantial harm or predicted loss has been</p>

Policy	Relevant Policy Objectives	Significance of impact of the Scheme on policy objective
	<p><i>designated heritage asset, great weight should be given to the asset’s conservation. The more important the asset, the greater the weight should be”. The paragraph goes on to state that “substantial harm to or loss of a grade II listed buildings, park or garden should be exceptional. Substantial harm to or loss of designated heritage assets of the highest significance, notable Scheduled Monuments, protected wreck sites, battlefields, grade I and II* listed buildings, grade I and I* registered parks and gardens, and World Heritage Sites, should be wholly exceptional”. Non-designated heritage assets of archaeological interest, which are demonstrably of equivalent significance to Scheduled Monuments, should be considered subject to the policies for designated heritage assets.</i></p> <p>Paragraph 195 states that “<i>where a proposed development will lead to substantial harm to (or total loss of significance of) a designated heritage asset, local planning authorities should refuse consent, unless it can be demonstrated that the substantial harm or total loss is necessary to achieve substantial public benefits that outweigh that harm or loss, or all of the following apply: the nature of the heritage asset prevents all reasonable uses of the site; and no viable use of the heritage asset itself can be found in the medium term through appropriate marketing that will enable its conservation; and conservation by grant-funding or some form of not for profit, charitable or public ownership is demonstrably not possible, and the harm or loss is outweighed by the benefit of bringing the site back into use.</i>”</p>	<p>identified for designated cultural heritage assets (Section 6.9 – Paragraphs 6.9.2 to 6.9.15)</p>
NPPF (2019)	Paragraph 196 states that “ <i>where a development proposal will lead to less than</i>	Less than significant harm is taken to equate

Policy	Relevant Policy Objectives	Significance of impact of the Scheme on policy objective
	<p><i>substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal including, where appropriate, securing its optimum viable use.</i></p>	<p>to a magnitude of impact below moderate.</p>
<p>NPPF (2019)</p>	<p>Paragraph 197 states that <i>“The effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that directly or indirectly affect non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset.”</i></p>	<p>The assessment provides a judgement on the scale of harm to non-designated assets. There will be moderate adverse impacts to the significance of the heritage assets.</p>
<p>NPPF (2019)</p>	<p>Paragraphs 198 and 199 state Local planning authorities should not permit the loss of the whole or part of a heritage asset without taking all reasonable steps to ensure the new development will proceed after the loss has occurred.</p> <p>Local planning authorities should require developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible. However, the ability to record evidence of our past should not be a factor in deciding whether such loss should be permitted.</p>	<p>The underpass design impacts on the policy as it requires the removal of a section of wall relating to Bowes Railway SM. To mitigate the effects of this, archaeological archive recording of the retaining wall associated with Bowes Railway was undertaken Appendix 6.3 of this ES (Application Document Reference: TR010031/APP/6.3). In accordance with NPPF (para 199), preservation by archive recording in advance provides an understanding of the significance of the asset, its importance and impact.</p> <p>Archaeological investigation and</p>

Policy	Relevant Policy Objectives	Significance of impact of the Scheme on policy objective
		<p>mitigation measures have been implemented as part of the Scheme to determine the presence of previously unknown heritage assets:</p> <ul style="list-style-type: none"> – A walkover survey at the Bowes Railway SM and recording of associated features. – Similarly, a walkover survey was undertaken at the site of Lamesley Wagonway (4124) to determine the presence of any above-ground features associated with the asset. – A geophysical survey at the proposed site compound, including temporary land between Bowes Railway SM and the Bowes Incline Hotel, followed by a programme of archaeological evaluation trenching, to be carried out at detailed design stage or prior to construction, in

Policy	Relevant Policy Objectives	Significance of impact of the Scheme on policy objective
		<p>order to determine the presence of unknown buried archaeological remains which will be disturbed and allow an archive record to be compiled.</p> <p>The following mitigation measures would be implemented as part of the Scheme:</p> <ul style="list-style-type: none"> – An archaeological topography survey within the fields containing evidence of ridge and furrow earthworks. – To mitigate impacts on setting, the installation of an interpretation panel near to Bowes Railway SM and the Longbank Bridleway Underpass. <p>These measures are presented in Section 6.9 below.</p>
NPPF (2019)	Paragraph 200 states that <i>“proposals that preserve those elements of the setting that make a positive contribution to the asset (or</i>	Due to the localised nature of the proposed works, there would be no change to the setting of the majority of assets that

Policy	Relevant Policy Objectives	Significance of impact of the Scheme on policy objective
	<i>which better reveal its significance) should be treated favourably.”</i>	have been identified in the wider Study Area (paragraph 6.8.13). However, permanent adverse impacts to the significance of Bowes Railway SM would occur as a result of the loss of a section of the retaining wall (paragraph 6.8.16). However, this has been mitigated by archaeological archive recording of the retaining wall (Salford Archaeology 2018, Appendix 6.3 of this ES (Application Document Reference: TR010031/APP/6.3). In accordance with NPPF (para 199), preservation by archive recording in advance provides an understanding of the significance of the asset, its importance and impact.

Local

6.3.7. Local policy relevant to the potential effects on Cultural Heritage is outlined in **Table 6-3**.

Table 6-3 - Relevant local policy

Policy	Relevant Policy Objectives	Significance of Impact on Policy Objective
The Gateshead Core Strategy and Urban Core Plan	Policy UC14 Heritage To respect the historical legacy, varied character and appearance of the historic environment, development will:	In accordance with the Gateshead Core Strategy and Urban Core Plan - Policy UC14 Heritage, the Scheme would aim to maximise opportunities to

Policy	Relevant Policy Objectives	Significance of Impact on Policy Objective
for Gateshead and Newcastle-upon-Tyne (2015)	<ul style="list-style-type: none"> – Maximise opportunities to sustain and enhance the significance of heritage assets and their setting; – Include opportunities for the contemporary interpretation of heritage assets including Hadrian’s Wall and associated features. 	<p>sustain and enhance the significance of Bowes Railway SM and provide contemporary interpretation of Bowes Railway and associated features. Similarly, in accordance with the Gateshead Local Plan -</p>
<p>Gateshead Local Plan (March 2015); Policies ENV9, ENV10, ENV18, ENV21 and ENV22</p>	<p>CS15 Place-Making</p> <p>Development will contribute to good place-making through the delivery of high quality and sustainable design, and the conservation and enhancement of the historic environment. This will be achieved by development being required to:</p> <ul style="list-style-type: none"> – Respond positively to local distinctiveness and character, – iCreate safe and inclusive environments, – Ensure connectivity, accessibility and legibility, – Respect and enhance significant views and the setting of heritage assets, – Respond to the unique character and importance of the River Tyne, its tributaries and its setting, – Respond positively to opportunities to introduce public art, and; – Respond to local design and conservation guidance. <p>Taking a proactive approach to sustaining the historic environment in a manner appropriate to the significance of the relevant heritage asset and requiring development to support and safeguard the historic environment by:</p> <ol style="list-style-type: none"> i. Promoting the use, enjoyment and understanding of the historic environment, ii. Positively responding to those heritage assets which are at risk, and not leaving 	<p>CS15 Place-Making, the Scheme would aim to deliver high quality and sustainable design, and the conservation and enhancement of the historic environment.</p> <p>This would be achieved by the installation of the proposed interpretation panel near to Bowes Railway SM and Longbank Bridleway Underpass would aim to enhance the setting of Bowes Railway SM. This approach would promote the use, enjoyment and understanding of the historic environment. This will result in a positive impact through promoting the use, enjoyment and understanding of the historic environment.</p>

Policy	Relevant Policy Objectives	Significance of Impact on Policy Objective
	<p>heritage assets at risk, or vulnerable to risk, and</p> <p>iii. Where appropriate positively adapting heritage assets to ensure the continued contribution to quality of place.</p>	
	<p>UC13 Respecting and Managing Views Within, From and Into the Urban Core</p> <p>To respect important public views there will be a presumption against development proposals that would cause significant harm. Views that will be respected include those:</p> <ul style="list-style-type: none"> – From or across or into the Tyne Gorge, – From defined major movement corridors/routeways, and – Of designated heritage assets, other distinctive landmark buildings and structures. 	<p>No significant impacts are predicted on the setting of any heritage assets as a result of the Scheme, with the exception of Bowes Railway SM during the construction phase. Through consultation with Historic England it has been agreed that wider mitigation for the impacts on the Bowes Railway SM will include an interpretation panel near to Longbank Bridleway Underpass on the Public Rights of Way (PRoW).</p> <p>There would be beneficial effects through the implementation of woodland enhancement measures, south of the Angel of the North sculpture. This would include thinning operations and pruning in order to provide greater visibility of the sculpture in views from the A1 corridor and more widely within the surrounding landscape (see Section 6.9 – Paragraph 6.9.3).</p>

6.4 ASSESSMENT METHODOLOGY

6.4.1. The assessment of impacts on cultural heritage assets has been undertaken in accordance with the methodology described in Design Manual for Roads and Bridges (DMRB) Volume 11, Section 3, Part 2 (HA208/07) (**Ref 6.3**). This is a Detailed Assessment as described in

paragraph 3.9 of HA208/07, which is the level required when there is the potential for significant impacts on cultural heritage resources.

SCOPE OF ASSESSMENT

- 6.4.2. As detailed in HA208/07 the cultural heritage topic encompasses the sub-topics of Archaeological Remains; Historic Buildings; and Historic Landscapes.
- 6.4.3. In accordance with HA208/07, Cultural Heritage comprises World Heritage Sites, Scheduled Monuments, Listed Buildings (all grades), Conservation Areas, Registered Parks and Gardens, Historic Battlefields, the Historic Landscape and non-statutory designated heritage assets including below-ground and earthwork archaeological remains.
- 6.4.4. Assets that have been assessed in this chapter comprise Listed Buildings, Conservation Areas, the Historic Landscape and non-statutory designated heritage assets including below-ground and earthwork archaeological remains.
- 6.4.5. No World Heritage Sites, Registered Parks and Gardens or Historic Battlefields are located within the Study Area and therefore these groups of assets have been scoped out of further assessment.

METHODOLOGY

Value of Asset

- 6.4.6. The value of a heritage asset is judged from Very High to Unknown, which results in the cultural heritage importance/sensitivity of the asset being determined as set out in **Table 6-4** which is based on HA208/07 Tables 5-1, 6-1 and 7-1.

Table 6-4 – Criteria used to determine value of heritage assets

Cultural Heritage Value	Criteria
Very High	Archaeological Remains: <ul style="list-style-type: none"> – World Heritage Sites (including nominated sites). – Assets of acknowledged international importance. – Assets that can contribute significantly to acknowledged international research objectives.
	Historic Buildings: <ul style="list-style-type: none"> – Structures inscribed as of universal importance as World Heritage Sites. – Other buildings of recognised international importance.

Cultural Heritage Value	Criteria
	<p>Historic Landscapes:</p> <ul style="list-style-type: none"> – World Heritage Sites inscribed for their historic landscape qualities. – Historic landscapes of international value, whether designated or not. – Extremely well preserved historic landscapes with exceptional coherence, time-depth, or other critical factor(s).
High	<p>Archaeological Remains:</p> <ul style="list-style-type: none"> – Scheduled Monuments (including proposed sites). – Undesignated assets of schedulable quality and importance. – Assets that can contribute significantly to acknowledged national research objectives.
	<p>Historic Buildings:</p> <ul style="list-style-type: none"> – Scheduled Monuments with standing remains – Grade I and Grade II* Listed Buildings. – Other listed buildings that can be shown to have exceptional qualities in their fabric or historical associations not adequately reflected in the listing grade. – Conservation Areas containing very important buildings. – Undesignated structures of clear national importance
	<p>Historic Landscapes:</p> <ul style="list-style-type: none"> – Designated historic landscapes of outstanding interest. – Undesignated landscapes of outstanding interest. – Undesignated landscapes of high quality and importance, and of demonstrable national value. – Well preserved historic landscapes, exhibiting considerable coherence, time-depth or other critical factor(s).
Medium	<p>Archaeological Remains:</p> <ul style="list-style-type: none"> – Designated or undesignated assets that contribute to regional research objectives.

Cultural Heritage Value	Criteria
	<p>Historic Buildings:</p> <ul style="list-style-type: none"> – Grade II Listed Buildings (It is acknowledged that Grade II listed buildings are of national importance). – Historic (unlisted) buildings that can be shown to have exceptional qualities in their fabric or historical associations. – Conservation Areas containing buildings that contribute significantly to its historic character. – Historic Townscape or built-up areas with important historic integrity in their buildings, or built settings (e.g. including street furniture and other structures). <p>Historic Landscapes:</p> <p>Designated special historic landscapes.</p> <ul style="list-style-type: none"> – Undesignated historic landscapes that would justify special historic landscape designation, landscapes of regional value. – Averagely well-preserved historic landscapes with reasonable coherence, time-depth or other critical factor(s).
Low	<p>Archaeological Remains:</p> <ul style="list-style-type: none"> – Designated and undesignated assets of local importance. – Assets compromised by poor preservation and/or poor survival of contextual associations. – Assets of limited value, but with potential to contribute to local research objectives. <p>Historic Buildings:</p> <ul style="list-style-type: none"> – ‘Locally Listed’ buildings – Historic (unlisted) buildings of modest quality in their fabric or historical association. <p>Historic Townscape or built-up areas of limited historic integrity in their buildings, or built settings (e.g. including street furniture and other structures).</p>

Cultural Heritage Value	Criteria
	<p>Historic Landscapes:</p> <ul style="list-style-type: none"> – Robust undesignated historic landscapes. – Historic landscapes with importance to local interest groups. – Historic landscapes whose value is limited by poor preservation and/or poor survival of contextual associations.
Negligible	<p>Archaeological Remains:</p> <ul style="list-style-type: none"> – Assets with very little or no surviving archaeological interest.
	<p>Historic Buildings:</p> <ul style="list-style-type: none"> – Buildings of no architectural or historical note; buildings of an intrusive character.
	<p>Historic Landscapes:</p> <ul style="list-style-type: none"> – Landscapes with little or no significant historical interest.
Unknown	<p>Archaeological Remains:</p> <ul style="list-style-type: none"> – The importance of the resource has not been ascertained.
	<p>Historic Buildings</p> <ul style="list-style-type: none"> – Buildings with some hidden (i.e. inaccessible) potential for historic significance.
	<p>Historic Landscapes:</p> <p>N/A</p>

6.4.7. **Table 6-4** is a general guide to the attributes of cultural heritage assets and it should be noted that not all the qualities listed need be present in every case. Professional judgement based on experience of similar schemes is used in applying the different criteria.

Magnitude of Impact

6.4.8. The level of harm to cultural heritage significance of the asset, or the magnitude of the impact as prescribed by HA208/07, is the basis of assessing impact. To assess the

magnitude of impact of any future development on built heritage or buried archaeological remains, consideration has been afforded to:

- a. Assessing any impact and the significance of the effects arising from any future development of the Study Area.
- b. Reviewing the evidence for past impacts that may have affected the archaeological sites of interest identified during the desk-based assessment.
- c. Outlining suitable mitigation measures, where possible at this stage, to avoid, reduce, or remedy adverse impacts.

6.4.9. Key impacts have been identified as those that would potentially harm the significance of the heritage asset. Each potential impact has been determined as the predicted deviation from the baseline conditions, in accordance with current knowledge of the Scheme and design options.

6.4.10. The ClfA 'Standard and Guidance for Historic Environment Desk-based Assessment' (2014) (**Ref 6.4**), considers that an assessment of the significance of heritage assets should identify the potential impact of proposed or predicted changes on the significance of the asset and the opportunities for reducing that impact. Policy 129 of NPPF states that this evidence should be taken into account when considering the impact of a proposal.

6.4.11. The magnitude, or scale of an impact is termed as major, moderate, minor, negligible or no change, as defined in **Table 6-5** which is based on Tables 5-3, 6-3, 7-3 in HA208/07.

Table 6-5 - Criteria used to determine magnitude of impact

Magnitude of Impact	Description
Major	Archaeological Remains: <ul style="list-style-type: none"> – Change to most or all key archaeological materials, such that the resource is totally altered. – Comprehensive changes to setting.
	Historic Buildings: <ul style="list-style-type: none"> – Comprehensive changes to setting. – Change to key historic building elements, such that the resource is totally altered
	Historic Landscapes: <ul style="list-style-type: none"> – Change to most or all key historic landscape elements, parcels or components; extreme visual effects; gross change of noise or change to sound quality; fundamental changes to use or access; resulting in total change to historic landscape character unit.

Magnitude of Impact	Description
Moderate	<p>Archaeological Remains:</p> <ul style="list-style-type: none"> – Changes to many key archaeological materials, such that the resource is clearly modified. – Considerable changes to setting that affect the character of the asset.
	<p>Historic Buildings:</p> <ul style="list-style-type: none"> – Change to many key historic building elements, such that the resource is significantly modified. – Considerable changes to setting that affect the character of the asset. – Changes to the setting of an historic building, such that it is significantly modified.
	<p>Historic Landscapes:</p> <ul style="list-style-type: none"> – Changes to many key historic landscape elements, parcels or components, visual change to many key aspects of the historic landscape, noticeable differences in noise or sound quality, considerable changes to use or access; resulting in moderate changes to historic landscape character.
Minor	<p>Archaeological Remains:</p> <ul style="list-style-type: none"> – Changes to key archaeological materials, such that the asset is slightly altered – Slight changes to setting.
	<p>Historic Buildings:</p> <ul style="list-style-type: none"> – Change to key historic building elements, such that the asset is slightly different. – Change to setting of an historic building, such that it is noticeably changed.
	<p>Historic Landscapes:</p> <ul style="list-style-type: none"> – Changes to few key historic landscape elements, parcels or components, slight visual changes to few key aspects of historic landscape, limited changes to noise levels or sound quality; slight changes to use or access: resulting in limited changes to historic landscape character.

Magnitude of Impact	Description
Negligible	Archaeological Remains: – Very minor changes to archaeological materials or setting.
	Historic Buildings: – Slight changes to historic buildings elements or setting that hardly affect it.
	Historic Landscapes: – Very minor changes to key historic landscape elements, parcels or components, virtually unchanged visual effects, very slight changes in noise levels or sound quality; very slight changes to use or access; resulting in a very small change to historic landscape character.
No Change	Archaeological Remains: – No change.
	Historic Buildings: – No change to fabric or setting.
	Historic Landscapes: – No change to elements, parcels or components; no visual or audible changes; no changes arising from amenity or community factors.

Significance of Effect

- 6.4.12. The interaction between the importance of the heritage asset and the potential magnitude of impact **Table 6-5** produce the significance of effect. This has been determined using the matrix shown in **Table 4-4** (refer to **Section 4.6** of this ES).
- 6.4.13. Those effects of moderate significance or above are regarded as significant in terms of the EIA Regulations. Mitigation measures as appropriate for each heritage asset affected are presented in **Section 6.9**.

Assessment of the Setting of Heritage Assets

- 6.4.14. This assessment also considers the effects of the Scheme on the setting of designated assets, which comprise Scheduled Monuments and Grade II listed buildings (there are no Grade I or II* buildings within the Study Area). The effects on the settings of Locally Listed assets and Conservation Areas are also considered.

METHODOLOGY

- 6.4.15. The definition of setting used here is taken from the NPPF as follows:
‘the surroundings in which an asset is experienced. Its extent is not fixed and may change as the asset and its surrounding evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral’ (Annex 2, NPPF).
- 6.4.16. Historic England Managing Significance in Decision-Taking in the Historic Environment, Historic Environment Good Practice Advice in Planning Note 2 (**Ref. 6.5**) considers the nature, extent and level of significance attributed to heritage assets which should be assessed against the impacts of proposed development.
- 6.4.17. Historic England guidance *Preserving Archaeological Remains: Decision-taking for Sites under Development* (**Ref. 6.6**) considers the aspects of decision-taking in relation to archaeological assets. It addresses the state of preservation of archaeological assets as a contribution to the assessment of the assets’ significance. It also considers nature of potential impacts of proposed development and the assessment of degree of harm that may be caused to its significance.
- 6.4.18. Historic England *The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning Note 3* (**Ref 6.7**) considers that the importance of setting lies in what it contributes to the significance of the heritage asset. This depends on a wide range of physical elements within, as well as perceptual and associational attributes pertaining to, the heritage asset’s surroundings.
- 6.4.19. Historic England discusses several other general considerations including: cumulative change; change over time; appreciating setting; buried assets and setting; designated settings; setting and urban design; and setting and economic and social viability and has provided a stepped approach to the assessment and importance of setting to heritage assets:
- a. Step 1: Identify which heritage assets and their settings are affected (as presented in the gazetteer of heritage assets).
 - b. Step 2: Assessing whether, how and to what degree the settings make a contribution to the cultural heritage significance of the heritage assets.
 - c. Step 3: Assessing the effect of a proposed development on the setting, and the resulting implications for the cultural heritage significance of the heritage asset(s).
 - d. Step 4: Maximising enhancement and minimising harm (mitigation).
- 6.4.20. In assessing whether, how and to what degree the settings make a contribution to the cultural heritage significance of the heritage assets, a number of potential attributes of a setting are considered. These attributes are outlined in the Setting Assessment Attribute

Tables (i.e. Table 11 and Table 12) contained in Appendix B of the HEDBA (**Appendix 6.1** of this ES (**Application Document Reference: TR010031/APP/6.3**)).

6.4.21. The attributes of settings contribute to its sensitivity and its contribution to the significance of the asset. **Table 6-6** presents examples of definitions for the sensitivity of settings but these should not be seen as exhaustive. This is derived from Historic England, The Setting of Heritage Assets 2017 (**Ref 6.7**).

Table 6-6 - Definitions of the sensitivity of settings

Examples of Sensitivity of Settings	Contribution to Significance of the Asset
A defined setting that is contemporary with and historically and functionally linked with the heritage asset, may contain other heritage assets of international or national importance, has a very high degree of intervisibility with the asset and makes a very substantial contribution to both the significance of the heritage asset and to the understanding and appreciation of the significance of the asset.	Very Substantial (Very high)
Contemporary with and historically and functionally linked with the heritage asset, with minor alterations (in extent and/or character), has a high degree of intervisibility with the asset and which makes a substantial contribution to both the significance of the heritage asset and to the understanding and appreciation of the significance of the asset.	Substantial (high)
Contemporary with and/or historically and/or functionally linked with the heritage asset but with alterations which may detract from the understanding of the heritage asset, and/or with a moderate degree of intervisibility with the asset and/or which makes a moderate contribution to the significance of the heritage asset and/or a moderate contribution to the understanding and appreciation of the significance of the asset.	Moderate (medium)
Largely altered so that there is very little evidence of contemporaneous and/or historic and/or functional links with the heritage asset, and/or with a low degree of indivisibility with the asset and/or which makes a minor contribution to both the significance of the heritage asset and to the understanding and appreciation of the significance of the asset.	Minor (low)

6.4.22. Having assessed the contribution of the setting to the cultural heritage significance of the asset, the effect of a proposed development on the setting can be determined by consideration of the potential attributes of a proposed development affecting setting. These attributes, as taken from Historic England 2017 are presented in **Table 6-7**.

Table 6-7 - Potential attributes of settings

Potential attributes/factors to consider

The asset's physical surroundings:

- Topography
- Aspect
- Other heritage assets (archaeological remains, buildings, structures, landscapes, areas of archaeological remains)
- Definition, scale and 'grain' of surrounding streetscape, landscape and spaces
- Formal design e.g. hierarchy, layout
- Orientation and aspect
- Historic materials and surfaces
- Openness, enclosure and boundaries; functional relationships and communications
- Green spaces, trees and vegetation
- History and degree of change over time

Experience of the asset:

- Surrounding landscape and town character
- Views from, towards, through and across, including the asset
- Visual dominance, prominence or role as focal point
- Intentional intervisibility with other historic and natural features
- Noise, vibration and other pollutants and nuisances
- Tranquillity, remoteness, 'wildness'
- Busyness, bustle, movement and activity
- Scents and smells
- Diurnal changes
- Sense of enclosure, seclusion, intimacy or privacy
- Land use
- Dynamism and activity
- Accessibility, permeability and patterns of movement
- Degree of interpretation or promotion to the public
- The rarity of comparable survivals of setting
- Cultural associations
- Celebrated artistic representations
- Traditions

6.4.23. Once the sensitivity and contribution of the setting has been determined and the potential attributes of a proposed development identified, the level of harm or beneficial impact of a proposed development needs to be evaluated. The criteria for assessing the level of harm (impact or benefit) are presented in **Table 6-8** which is based on Tables 5.3, 6.3, 7.3 in HA208/07. This presents definitions of varying scales of harm or benefit to the contribution of the setting.

Table 6-8 - Criteria for assessing the impact or benefit of a scheme to a setting

Level of Impact or Benefit (Magnitude of Impact)	Guideline Criteria
Major beneficial	The contribution of setting to the cultural heritage asset's significance is considerably enhanced as a result of the development; a lost relationship between the asset and its setting is restored, or the legibility of the relationship is greatly enhanced. Elements of the surroundings that detract from the asset's cultural heritage significance or the appreciation of that significance are removed.
Moderate beneficial	The contribution of setting to the cultural heritage asset's significance is enhanced to a clearly appreciable extent as a result of the development; the relationship between the asset and its setting is rendered more readily apparent. The negative effect of elements of the surroundings that detract from the asset's cultural heritage significance or the appreciation of that significance is appreciably reduced.
Minor beneficial	The setting of the cultural heritage asset is slightly improved as a result of the development, slightly improving the degree to which the setting's relationship with the asset can be appreciated.
Negligible	The setting of the cultural heritage asset is changed by the development in ways that do not alter the contribution of setting to the asset's significance.
Minor Adverse	The contribution of the setting of the cultural heritage asset to its significance is slightly degraded as a result of the development, but without adversely affecting the interpretability of the asset and its setting; characteristics of historic value can still be appreciated, the changes do not strongly conflict with the character of the site, and could be easily reversed to approximate the pre-development conditions.

Level of Impact or Benefit (Magnitude of Impact)	Guideline Criteria
Moderate Adverse	The contribution of the setting of the cultural heritage asset to its significance is reduced appreciably as a result of the development. Relevant setting characteristics can still be appreciated but less readily.
Major Adverse	The contribution of the setting of the cultural heritage asset to its significance is effectively lost or substantially reduced as a result of the development, the relationship between the asset and its setting is no longer readily appreciable.

6.4.24. Changes may occur to the setting of an asset that neither affect their contribution to the cultural heritage significance of the asset, nor the extent to which its cultural heritage significance can be experienced. In such instances it will be considered that there is no impact upon setting.

Significance of Effects (Setting)

6.4.25. The interaction of the sensitivity of the setting (**Table 6-6**) and the potential magnitude of impact (**Table 6-5**), produce the significance of effect in **Table 4-4** of **Chapter 4 Environmental Assessment Methodology** of this ES (**Application Document Reference: TR010031/APP/6.1**). Effects with a significance of moderate and above are considered significant in terms of the EIA Regulations (refer to **Section 4.6** of **Chapter 4 Environmental Assessment Methodology** of this ES (**Application Document Reference: TR010031/APP/6.1**)).

SURVEYS

6.4.26. The wider Study Area (1km) (as detailed in **Section 6.6, paragraphs 6.6.1 to 6.6.3**) was visited in February 2018 to assess the contribution of the settings to the statutory designated heritage assets, the results of which are presented in the HEDBA (**Appendix 6.1** of this ES (**Application Document Reference: TR010031/APP/6.3**)). An assessment of the potential for direct impacts (primary rather than secondary) on these settings was undertaken. The general topography was noted, as was the presence of any large areas of open land and building complexes such as housing estates and industrial estates.

6.4.27. In October 2018, following consultation with the Archaeology Officer at Newcastle City Council (NCC) (**Table 6-9**), a walkover survey was undertaken at the site of Lamesley Wagonway (4124) to investigate the presence of any above-ground features or structures associated with this asset.

- 6.4.28. As agreed with Historic England (**Table 6-9**), in August 2018 a photographic survey was compiled by Salford Archaeology (**Ref 6.8**) comprising comprehensive inspection and photographic record of a 40m section of retaining wall of the Scheduled Bowes Railway (1003723) at the Longbank Bridleway Underpass. The purpose of the survey was to inform whether a dilapidated section of the retaining wall could be repaired as part of a mitigation strategy. The survey also included a programme of historic building investigation and walk-over survey to identify surviving elements of the retaining wall.

DATA SOURCES

- 6.4.29. The following sources have been consulted during the data gathering process:

- a. Tyne and Wear Historic Environment Record
- b. National Heritage List for England (NHLE) as maintained by Historic England
- c. Historic maps including Ordnance Survey
- d. Online Sources:
 - i. Bowes Railway. <http://bowesrailway.uk/about/>, accessed 20/03/2018
 - ii. British Geological Survey, <http://mapapps.bgs.ac.uk/geologyofbritain/home.html>, accessed 20/03/2018
 - iii. The Durham Mining Museum, <http://www.dmm.org.uk/colliery/k005.htm>, accessed 22/03/2018
 - iv. The Durham Mining Museum, <http://www.dmm.org.uk/colliery/r003.htm>, accessed 22/03/2018
 - v. www.thejournal.co.uk/business/business-news/team-valley-celebrates-75th-anniversary-4432839, accessed 20/03/2018

- 6.4.30. In addition, various surveys have been carried out as part of this assessment as follows:

- a. A photographic survey comprising comprehensive inspection and photographic record of a 40-metre section of retaining wall of the Scheduled Bowes Railway (1003723) at the Longbank Bridleway Underpass (**Appendix 6.1** of this ES (**Application Document Reference: TR010031/APP/6.3**)).
- b. A geophysical survey at the proposed site compound, including temporary land between Bowes Railway SM and the Bowes Incline Hotel (**Appendix 6.2 (Application Document Reference: TR010031/APP/6.3)**) was undertaken as outlined in **paragraph 6.7.27** and **Table 6-9**). It should be noted that geophysical survey techniques are only applicable where ground conditions allow. For instance, heavily disturbed ground or ground close to highways such as the site of the new Allerdene bridge is unsuitable.
- c. A walkover survey at the site of Lamesley Wagonway (4124) to determine the presence of any above-ground features associated with the asset (**paragraph 6.7.27**).
- d. Walkover survey at the Bowes Railway SM and recording of associated features (**Appendix 6.3** of this ES (**Application Document Reference: TR010031/APP/6.3**)).

POLICY AND GUIDANCE

- 6.4.31. The methodology for this assessment has been carried out in accordance with the following policy and guidance:

- a. DMRB (Volume 11 Environmental Assessment, Section 3, Part 2, Cultural Heritage (HA208/07) **(Ref 6.3)** and DMRB Volume 10 Environmental Design, Section 6, Part 1, Trunk Mitigation and Archaeological Mitigation (HA75/010 **(Ref 6.9)**)
- b. National Planning Policy Framework 2019 **(Ref 6.2)**
- c. National Policy Statement for National Networks 2014 **(Ref 6.1)**
- d. Chartered Institute for Archaeologists (CIfA) 2014, Standard and Guidance for Historic Environment Desk-Based Assessment **(Ref 6.4)**
- e. CIfA, 2014a, code of conduct **(Ref 6.10)**
- f. CIfA, 2014b, standards and guidance for consultancy advice **(Ref 6.11)**
- g. Historic England, 2015 Managing Significance in Decision-Taking in the Historic Environment: Historic Environment Good Practice Advice in Planning Note 2. **(Ref 6.5)**
- h. Historic England 2016, Preserving Archaeological Remains: Decision-taking for Sites under Development **(Ref 6.6)**
- i. Historic England 2017, The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning Note 3 (Second Edition) **(Ref 6.7)**

CONSULTATION

6.4.32. The following bodies/organisations have been contacted for their comment on the Scheme, and this consultation is summarised in **Table 6-9** and **Appendix 4.4** of this ES (**Application Document Reference: TR010031/APP/6.3**):

- a. Historic England
- b. Gateshead Council
- c. Newcastle City Council

Table 6-9 - Consultation undertaken

Date	Consultee/Organisation	Matters Discussed	Agreement
July 2019	Historic England - Lee MacFarlane, Inspector of Ancient Monuments	Comments on the CEMP, Letter of no-impediment and draft DCO.	Further updates agreed on the CEMP. Updates also discussed for the draft DCO in relation to archaeological remains. The process relating to the letter of no impediment was also discussed.
May 2019	Historic England - Lee MacFarlane, Inspector of Ancient Monuments	Comments on the ES/CEMP and SoCG	LM requested a number of changes to the ES. These included the potential adverse impacts of the location of gantries on views toward the Angel of the North. LM also requested similar changes to the SoCG following which Historic England would

Date	Consultee/Organisation	Matters Discussed	Agreement
			reply with a letter of no-impediment.
February to July 2018	Historic England - Lee MacFarlane, Inspector of Ancient Monuments	Investigation and mitigation strategies for Bowes Railway SM	It was agreed that a section of wall would be recorded by photographic means and that an interpretation panel would be considered as mitigation. It was also agreed that archaeological monitoring would be undertaken during intrusive works across the railway line to mitigate against the effects of ground works.
February 2018	Gateshead Council Conservation Officer - Claire Richardson	Matters relating to the setting of heritage asset	Angel of the North was included as a heritage asset.
February 2018	Tyne and Wear Archaeology Officer - Claire MacRea	Archaeological investigation programme	<p>It was agreed to investigate the archaeological potential of land within the footprint of the proposed site compound to the north of the A1 and the footprint of temporary land take between Bowes Railway SM and the Bowes Incline Hotel. This would comprise a geophysical survey where viable, followed by a programme of archaeological evaluation trenching. The geophysical survey has been completed, other than in areas without land access. Survey on this land will be at the discretion of the Planning Archaeologist. .</p> <p>A walkover survey and topographic survey were also agreed.</p> <p>It was also agreed that a HEDBA (Appendix 6.1 of this ES (Application Document Reference: TR010031/APP/6.3)) would be produced. This was completed in April 2019.</p>

6.5 ASSESSMENT ASSUMPTIONS AND LIMITATIONS

- 6.5.1. The information presented in this chapter has been drawn from data obtained from a variety of sources and includes secondary information. It is assumed that this information is accurate.
- 6.5.2. This assessment was undertaken on the baseline conditions present at the time of compilation. The Angel of the North (11053) was assessed as a Locally Listed asset, any subsequent scheduling of the asset by Historic England would not alter the potential beneficial impacts resulting from the rationalisation of surrounding vegetation.
- 6.5.3. The data provided by Historic Environment Records is not a record of all surviving heritage assets, but a record of the discovery of wide range of archaeological and historical components of the historic environment. There is a potential for the presence of further, unrecorded, heritage assets and components of the historic environment.
- 6.5.4. Land at Bowes Incline Hotel was not accessible at the time of geophysical survey.
- 6.5.5. The draft Development Consent Order (DCO) contains powers of lateral and vertical deviation. The EIA has taken the Limits of Deviation (LoD) into account and the approach taken is described in **Chapter 4 Environmental Assessment Methodology, paragraph 4.5.4** of this ES (**Application Document Reference: TR010031/APP/6.1**). The outputs of the assessment are not considered likely to change materially as a result of the power of deviation.

6.6 STUDY AREA

- 6.6.1. The Study Areas (inner and wider) were agreed with Historic England and the Gateshead Council Conservation Officer. The distances reflect the proximity of the Scheme to the existing highway and the relatively low-lying nature of the Scheme in the landscape. The Zone of Visual Influence (ZVI) (refer to **Figure 7-3** of this ES (**Application Document Reference: TR010031/APP/6.2**)) was referred to when considering assets outside the 1km study area and additional assets included. Where appropriate, and requested by consultees, assets beyond the 1km study area were also considered.
- 6.6.2. An inner Study Area of 500m extending out from the limits of the Scheme Footprint was applied for the identification of all types of heritage assets (designated, non-designated and potential archaeological remains) to establish the known historic environment context and the potential for hitherto unknown below-ground archaeological remains (**Figure 6.1** of this ES (**Application Document Reference: TR010031/APP/6.2**)).
- 6.6.3. A second, wider Study Area was applied for the assessment of settings of designated heritage assets and Conservation Areas, and this extends up to 1km from the Scheme Footprint (**Figure 6.2** of this ES (**Application Document Reference: TR010031/APP/6.2**)). The Study Areas were based on guidance presented in HA208/07 (section 5.4 Annex 5, section 6.4 Annex 6, section 7.4 Annex 7) and were confirmed to be appropriate following a site walkover undertaken in February 2018.

6.7 BASELINE CONDITIONS

6.7.1. Full baseline conditions can be found in the HEDBA (**Appendix 6.1** of this ES (**Application Document Reference: TR010031/APP/6.3**)). Those assets within, close to or of relevance to the Scheme are included below. There are no known remains from the Prehistoric Period (500,000BC to AD43) within the Scheme Footprint.

ROMANO-BRITISH PERIOD (AD 43 – AD 410)

6.7.2. Hadrian's Wall was the North-West frontier of the Roman Empire for nearly 300 years and was built on the orders of the Emperor Hadrian following his visit to Britain in AD 122. At 73 miles (80 Roman miles) long, it crossed northern Britain from Wallsend on the River Tyne in the east to Bowness-on-Solway in the west. The section at Wallsend is located approximately 16km from the Scheme Footprint.

6.7.3. The Romano-British road network in the region consisted of major north/south routes with occasional west/east routes leading off to cross the upland spine of the country and link with the North-West. The site of Gateshead to Chester-le-Street Roman road (276), one of the north/south routes, follows a projected course through the Scheme and Roman bridgeHA208/07abutments (12964) were recorded in the inner Study Area.

6.7.4. It is likely that coal mining in the north-east originated in the Romano-British period as suggested by the use of coal in iron smithing and working copper alloy at Housesteads Fort in Northumberland, approximately 56km from the Scheme Footprint.

6.7.5. There are several recorded archaeological find spots that lie immediately outside the Scheme Study Areas, with Romano-British coins found near Team Valley Trading Estate and the site of a possible fort identified in the same area at Washing Wells. More coins and, a sculpture/stone head and a stone alter possibly taken from Vindobala Fort in Rudchester were recovered in Gateshead.

EARLY MEDIEVAL (AD 410 – AD 1066)

6.7.6. There is no record of activity from the Early Medieval period in the Study Areas.

LATE MEDIEVAL (AD 1066 – AD 1540)

6.7.7. During this period the landscape is characterised by Manors, which were the economic and social units of life and consisted of a manor house, one or more villages, and up to several thousand acres of land divided into meadow, pasture, forest, and cultivated fields. A number of village sites have been identified in the Study Areas but outside the Scheme Footprint and include those at Lamesley (4929), Eighton (661) and Birtley (670). Excavations at Lamesley produced evidence for field systems, ridge and furrow farming practices, flood defences and hollow ways, making this site one of the best surviving examples of a medieval landscape in Tyne and Wear.

6.7.8. Although documentary evidence for medieval coal mines does exist, there is little to be seen on the ground with most early workings presumably being destroyed by later mining. The importance of the region as a medieval coastal trade centre is highlighted at Hartlepool,

where the development of the quayside illustrates the growing role of the North Sea and coastal trade for the success of the region.

- 6.7.9. The proximity of the Scottish border led to the construction of many fortified structures in the region including the castle at Newcastle, which was established during this period and built on the site of the earlier Anglo-Saxon cemetery. It was also during this period, in the thirteenth and fourteenth centuries that the Newcastle city walls were constructed which protected the town from attack and occupation during episodes of conflict.

POST MEDIEVAL (AD 1540 – C.1750)

- 6.7.10. The Post-medieval period in the north-east was one of radical and deep-rooted change as it saw the transition from an agricultural economy to an industrial one. The salt industry was significant in the seventeenth and early eighteenth century and a kiln relating to iron/steel from 1700 survives at Allensford approximately 15m west of the wider Study Area.
- 6.7.11. The north-east is celebrated as one of the birthplaces of the railway, which grew out of demand for the coal trade to move bulk goods quickly and cheaply. Horse drawn wagonways were developed from the early seventeenth century until the early nineteenth century and there are examples of these early wagonways in Gateshead at Gibside Estate and near Prince Consort Road. Little evidence of early coal mines exists, however Street Pit, also known as Ravensworth Ann Colliery (3874), is located within the inner Study Area, and possibly dates from the early eighteenth century.
- 6.7.12. Large numbers of buildings survive from this period in the north-east and there are many examples in Gateshead. Examples of building types include, brickworks, windmills and other various mills such as Whickham Windmill and Swalwell Mill. Although this period shows a general change of economic focus from agriculture to industry, a reliance on a rural economy was retained in areas like Lamesley in the inner Study Area, where cottages and farms predominated. A surviving example in the inner Study Area includes, Northside Farm (15783) a rare example of the multi-phase development of a traditional pre-industrial linear farmstead.
- 6.7.13. By the end of the period, the coal industry was already important both to the region and nationally. From its initial centres around the lower Tyne and middle Wear, it had spread by the early nineteenth century to dominate most of lowland County Durham and South Northumberland.

INDUSTRIAL PERIOD (C.1750 – AD1914)

- 6.7.14. The industrialisation of the region continued with increased fervour into the nineteenth century, when towns such as Gateshead, Hartlepool and Newcastle were among the major settlements that dramatically expanded in response to the growth of industrial production and the demand for labour. This period of rapid growth particularly after 1850, was fuelled, critically, by a dramatic increase in north-east coal production, from 4.5 million tons in 1800, to 10.5 million tons in 1850 and 45 million tons by 1900. The development of technology within the coal industry and its associated infrastructure was fundamental to the industrial and social development of the north-east and there are several examples of coal pits in the

inner Study Area, including Dean Pit (3772), Way Pit (3902) and George Pit (3862). A directory compiled in 1894 describes the township of Lamesley as *“rich in coal, and stone of a superior quality, well adapted for the purpose of mill and grind stones. There are several large quarries at work in this township, and coal is extensively wrought at the Ravensworth collieries. Its rateable value is £28,676.”*

- 6.7.15. Going hand-in-hand with urban expansion, there is evidence of rural settlement shrinkage and desertion in the region. Despite the decline in size of some agricultural villages, there was a rapid expansion in specialist industrial villages, and the Study Areas feature places such as Kibblesworth, Birtley and Lamesley. By the Industrial period, Birtley was riddled with coal shafts and pits, including Birtley Pit (3909) and Whin Pit (3907), and associated wagonways such as the two Birtley wagonways (3910 and 3908), all of which are situated in the inner Study Area. Similarly, Kibblesworth was also established as a typical pit village during this period, with the Robert Pit and Glamis Pit opening in the mid-nineteenth century. The development of technology both within the coal industry itself and in its associated infrastructure (most notably wagonways and railways) was fundamental to the industrial and social development of the north-east. The Bowes Railway (1003723) was particularly important in Kibblesworth, as it was extended here from Springwell in 1842, resulting in an increased industrial activity for the village. The Bowes Railway is discussed in more detail further below.
- 6.7.16. Similar to the railway, the expansion of the coal mining industry in the inner and wider Study Areas, led to the need to further develop the ports/harbours to the east, for example the North and South Dock in Sunderland were primarily for coal export.
- 6.7.17. A walkover survey (2018) revealed the presence of nineteenth-century pottery within ploughed soil of the arable field and an historic boundary to the east, as depicted in the 1862 OS map, which presently borders a disused section of what was originally a road, marked as ‘Long Bank’. This boundary comprises a north/south aligned drystone wall which survives to a height between c.05m-0.75m. There are slight traces of ridge and furrow cultivation in the southern corner of the field which are visible as faint hallows in the emerging field crop.

The Bowes Railway

- 6.7.18. As discussed above, the coal industry was particularly important to the region and led to the development of the railway in this area in order to improve transport between pits. The Bowes Railway was first proposed by the Grand Allies (a group of local coal owning families) to connect their new Springwell colliery and the older Mount Moor colliery with their Jarrow staiths. Originally an eleven-and-a-half mile railway was proposed by John Buddle including six rope worked inclines. However, they later handed the project to colliery engine wright George Stephenson who designed the present railway from Mount Moor pit (Black Fell) to Jarrow via Springwell using three incline planes and a locomotive worked section.
- 6.7.19. The line opened on 17th January 1826 using the inclines and horses until the new steam locomotives were delivered in April 1826. The railway was extended to Kibblesworth in 1842, Marley Hill in 1853 and Dipton in 1855, and this was as far as the line stretched (15

miles long). The section of line within the Scheme Footprint was part of the Kibblesworth extension. The line continued to operate in the same methods using six inclines (two gravity-worked and four powered inclines) and two locomotive worked sections at either end of the railway.

- 6.7.20. In 1932, the Springwell colliery closed and The Pontop and Jarrow Company was taken over and renamed the Bowes Railway, in honour of the Bowes-Lyon family (ancestors of the Queen mother) who were major shareholders. The Bowes Railway became part of the National Coal Board in 1947, which established a number of improvements to the line, such as linking it with the neighbouring Pelaw Main railway in 1955. As collieries in the area began to close in the mid-twentieth century, the line closed beyond Kibblesworth, with Kibblesworth being the only colliery in the area still using it. The closure of the pit in October 1974 brought an end to Bowes Railway which closed a month later.
- 6.7.21. The Springwell workshops, four wagons, three locomotives and a mile and half section of railway line (the earliest section between Black Fell and Springwell) was saved by Tyne and Wear County Council in the late twentieth century, and the line was later designated as a Scheduled Monument.
- 6.7.22. A photographic survey (WSP, 2018) identified the good survival of the retaining wall. In particular, the sections which are likely to be demolished as part of the Scheme. The survey outlined that no further archaeological investigation would be required in advance of demolition.

MODERN PERIOD (POST-1914)

- 6.7.23. In contrast to the industrialisation of the eighteenth and nineteenth centuries, the twentieth century has more often been characterised as a time of decline for industry, the effects of which are symbolised strongly in the north-east by the Jarrow Crusade (1936 protest march against the unemployment and poverty suffered in Jarrow, around 12km from the wider Study Area).
- 6.7.24. The impact of the First World War in the region is represented in the wider Study Area at Birtley, with the establishment of Elisabethville (8628), a settlement built for Belgian refugees who were put to work in the two munitions factories located in the town. The model settlement housed around 4,000 workers and was named after the Queen of the Belgians.
- 6.7.25. The post-war period saw a long-term decline in the major industries of the region with many important industries, such as coal mining almost completely disappearing. The effect of which can be seen in the Study Areas, where by 1974 the only coal mine left open in the area was that at Kibblesworth.
- 6.7.26. As a response to the decline in industry in the north-east, in the late 1930's, the government invested into the area surrounding the Scheme by establishing the Team Valley Trading Estate (7636). The estate successfully created jobs and attracted business to the area and still flourishes today. The Team Valley Trading Estate lies directly next to the Scheme.

GEOPHYSICAL SURVEY

6.7.27. Following consultation with the Archaeology Officer at NCC (**Table 6-9**) a programme of geophysical survey was undertaken in October 2018 in support of this ES. As detailed in the Geophysical Survey Report (**Appendix 6.2** of this ES (**Application Document Reference: TR010031/APP/6.3**)), the surveyed areas included the proposed compound area at junction 66 Eighton Lodge compound (Area 1 and 2 / 3), an area north of the A1 and west of Long Bank Bridleway (Area 4) and an area to the west of Northside Farm (Area 8) as shown in **Figure 2.3** of this ES (**Application Document Reference: TR010031/APP/6.2**) The survey revealed no anomalies of archaeological interest or archaeological features other than evidence of past ploughing.

GAZETTEER OF HERITAGE ASSETS

6.7.28. A total of 129 heritage assets are present within the inner and wider Study Areas. Of these, 23 are designated heritage assets including three Scheduled Monuments (SM), one Grade II* and 15 Grade II Listed Buildings and four Conservation Areas (CA). Bowes Railway SM (1003723) lies within the Scheme Footprint. Of the 106 non-designated heritage assets present, 23 lie within the Scheme Footprint and two are locally listed assets.

6.7.29. A gazetteer, including asset value, is presented in **Table 6-10** and **Table 6-11**. Designated heritage assets are presented on **Figure 6.1** of this ES (**Application Document Reference: TR010031/APP/6.2**).

Table 6-10 - Scheduled monuments, listed buildings, locally listed buildings and conservation areas within the 1km Study Area

Heritage Asset Type	Asset Name	Value	Inside/outside the Scheme Footprint
Scheduled Monument (SM)	Ravensworth Coal Mill (1015922), Ravensworth Quadrangular Castle (1016975)	High	Outside
	Bowes Railway (1003723)	High	Inside
Conservation Areas (CA)	Lamesley Village (11883); Ravensworth Park (646); Birtley (11878) and Chowdene (11885).	Medium	Outside
Grade II* Listed Buildings	Ravensworth Castle (1025190 and 1025151)	High	Outside

Heritage Asset Type	Asset Name	Value	Inside/outside the Scheme Footprint
Grade II Listed Buildings	Arch and walls adjoining South Lodge (1025189); South Lodge (1025188); Kenmore, the Old Vicarage (1355108); Temple Meads (1025153); Church of St. Andrew (1025154); Tomb of Robert Moscrop (1355109) Ravensworth Park Farmhouse (1185135); Ravensworth Castle walls and tower (1025150); Ravensworth Castle well (1025191) and stable block (1185160); Statue of Em Perkins (1025203); Birtley Cenotaph, memorial shelters, and garden wall including gate piers and railings (1433563); Church of St Joseph (1431020); Church of St John the Evangelist (1355096) and School House (1025204).	Medium	Outside

Table 6-11 - Non-designated heritage assets within the 500m Study Area

HER Number	Description	Period	Value	Inside/outside the Scheme Footprint
Locally Listed Buildings	The Angel of the North (11053) Team Valley Trading Estate (7636)		High Low	Outside
3907	Whin Pit	Industrial	Medium	Outside
3909	Birtley, Shaft	Industrial	Medium	Outside
3002	Boundary Pit	Industrial	Medium	Outside
3865	Corn Pit	Industrial	Medium	Outside

HER Number	Description	Period	Value	Inside/outside the Scheme Footprint
3768	Lamesley Bridge	Industrial	Medium	Outside
669	Lamesley Bridge	Industrial	Medium	Outside
3870	Rush Pit	Industrial	Medium	Outside
3871	Nelly Pit	Industrial	Medium	Outside
3861	Chance Pit	Industrial	Medium	Outside
3766	Nanny Pit	Industrial	Medium	Inside (Disturbed)
3767	Betty Pit	Industrial	Medium	Outside
3867	Lamesley, Engine House	Industrial	Medium	Outside
3773	Lamesley, Workshop	Industrial	Medium	Outside
3776	Corner Pit	Industrial	Medium	Outside
3860	Green Pit	Industrial	Medium	Outside
3859	Lamesley, Coal Shaft	Industrial	Medium	Outside
3772	Dean Pit	Industrial	Medium	Outside
3862	George Pit	Industrial	Medium	Outside
3872	Dam	Industrial	Medium	Outside
3873	Flat Pit	Industrial	Medium	Outside

HER Number	Description	Period	Value	Inside/outside the Scheme Footprint
658	Eighton, hermitage	Industrial	Low	Outside
3901	Coal Shaft	Industrial	Medium	Outside
3902	Way Pit	Industrial	Medium	Outside
1237	Black Fell	Industrial	Medium	Outside
659	Chapel	Industrial	Low	Outside
671	Lamesley Manor	Late Medieval	Low	Outside
667	Lamesley Mills	Industrial	Medium	Outside
5384	Site of Washington Mill	Industrial	Medium	Inside (Disturbed)
5394	Pillbox	Modern	Medium	Outside
5563	Searchlight	Modern	Medium	Outside
5831	WW2 road block	Modern	Medium	Outside
11052	Viewing Platform	Modern	Medium	Outside
11194	War memorial	Modern	Medium	Outside
11195	War memorial	Modern	Medium	Outside
12200	medieval grave slabs	Late Medieval	Low	Outside

HER Number	Description	Period	Value	Inside/outside the Scheme Footprint
12964	Roman bridge abutments	Romano-British	Medium	Outside
11220	Longacre Dene, an area of ancient woodland	Prehistoric	Medium	Outside
15237	A194(M)	Modern	Medium	Inside
15241	A1(M) Birtley By-pass	Modern	Medium	Inside
3741	Team (Colliery) wagonway	Industrial	Medium	Inside (Disturbed)
3749	Team wagonway	Industrial	Medium	Inside (Disturbed)
4125	Newcastle to Durham Road	Industrial	Medium	Inside
276	Gateshead to Chester-le-Street Roman road	Romano-British	Medium	Inside
3910	Birtley wagonway	Industrial	Medium	Outside
3908	Birtley wagonway	Industrial	Medium	Inside (Disturbed)
2616	Washington wagonway	Industrial	Medium	Inside (Disturbed)
3010	Harton wagonway	Industrial	Medium	Outside
3774	Lamesley wagonway	Industrial	Medium	Inside (Disturbed)
4124	Lamesley wagonway	Industrial	Medium	Inside
4123	Lamesley wagonway	Industrial	Medium	Outside

HER Number	Description	Period	Value	Inside/outside the Scheme Footprint
1908	Possible hollow way	Industrial	Medium	Outside
12965	Team Valley Railway	Industrial	Medium	Inside (Unaffected)
3010	Wagonway	Industrial	Medium	Outside
3764	Allerdean Brick and Tile Works	Industrial	Medium	Outside
3771	Allerdean Colliery	Industrial	Medium	Outside
3869	Reservoirs	Industrial	Medium	Outside
356	Team Colliery	Industrial	Medium	Outside
3866	Meadow Pit	Industrial	Medium	Outside
3874	Street Pit	Industrial	Medium	Outside
3876	Longbank Quarry	Industrial	Medium	Outside
3875	Lamesley Quarry	Industrial	Medium	Inside
3903	Borehole Pit	Industrial	Medium	Outside
2615	Mill Pit	Industrial	Medium	Outside
3915	Blackfell Engine	Industrial	Medium	Outside
4929	Ridge and furrow at Lamesley, (disturbed)	Late Medieval	Medium	Inside (Disturbed)
1672	Long Acre Farm	Industrial	Low	Outside

HER Number	Description	Period	Value	Inside/outside the Scheme Footprint
3904	Lamb Pit	Industrial	Medium	Inside (Disturbed)
3900	Hill Pit	Industrial	Medium	Outside
5081	North Farm	Industrial	Low	Outside
7516	Birtley East Primary School	Industrial	Low	Outside
7864	Site of Lady Ravensworth Almshouses	Industrial	Low	Inside (Disturbed)
7491	Ravensworth Arms Hotel	Industrial	Low	Outside
7536	Church Hall at Lamesley,	Industrial	Low	Outside
7425	Lady Park Lodge	Industrial	Low	Outside
7424	Lady Park Lodge, gate piers	Industrial	Low	Outside
9730	Crowther Industrial Estate	Modern	Low	Outside
9725	Oxclose	Modern	Low	Outside
9716	Blackfell	Modern	Low	Outside
9658	Harlow Green, Church of St. Ninian	Modern	Low	Outside
11905	Redholme	Industrial	Low	Outside
11906	The Cottages	Industrial	Low	Outside

HER Number	Description	Period	Value	Inside/outside the Scheme Footprint
11908	Meadowgate	Modern	Low	Outside
11909	Orpington House and Blacksmith's Cottage	Industrial	Low	Outside
5141	Smithy	Industrial	Low	Outside
11910	Woodhurst	Industrial	Low	Outside
8628	Elisabethville	Modern	Low	Outside
15783	Northside Farm House	Post-medieval	Low	Outside
15783	Northside Farm, stables and barns	Post-medieval	Low	Outside
17222	Methodist Chapel	Industrial	Low	Outside
3741	Team wagonway branch through Allerdene	Industrial	Medium	Inside (Disturbed)
3749	Team wagonway	Industrial	Medium	Inside (Disturbed)
5942	Donnison's or Great Grindstone Way	Industrial	Medium	Inside (Disturbed)
5935	Rudston's Way (wagonway)	Industrial	Medium	Inside (Disturbed)
4122	Urpeth/Ouston Colliery (wagonway)	Industrial	Medium	Inside (Disturbed)
2616	Old Washington (Broomy) Way	Industrial	Low	Inside (Disturbed)

HER Number	Description	Period	Value	Inside/outside the Scheme Footprint
3010	Humble's wagonway	Industrial	Medium	Outside
3910	Birtley Old wagonway	Industrial	Medium	Outside
17090	Urpeth to Poulter's Close wagonway	Industrial	Medium	Inside (Disturbed)
2624	New Washington (Usworth) Way to Cox Green	Industrial	Low	Outside
17097	Humble's wagonway	Industrial	Medium	Outside
664	Site of Lamesley village	Late Medieval	Medium	Outside
661	Site of Eighton village	Late Medieval	Medium	Outside
670	Site of Birtley Village	Late Medieval	Medium	Outside
12021	Site of Ravensworth	Industrial	Medium	Inside (Unaffected)
No HER ref	Ridge and Furrow	Late Medieval	Medium	Inside

6.8 POTENTIAL IMPACTS

6.8.1. The Scoping Report outlined potential impacts on the settings of Birtley CA (11878); Chowdene CA (11885) and the Grade II Listed assets of the Arch and Walls adjoining South Lodge (1025189); South Lodge (1025188); Kenmore, the Old Vicarage (1355108); Tomb of Robert Moscrop (1355109); Ravensworth Park Farmhouse (1185135); Statue of Em Perkins (1025203); Birtley Cenotaph, memorial shelters, and garden wall including gate piers and railings (1433563); Church of St Joseph (1431020) and the Locally Listed Team Valley and Trading Estate (7673). The setting of Ravensworth Castle (including the quadrangular SM; Grade II* Castle; Grade II walls, tower, well and stable block) has also

been assessed. Following a site visit and detailed setting assessment (reported in the HEDBA contained in **Appendix 6.1** of this ES (**Application Document Reference: TR010031/APP/6.3**)), it has been confirmed that there would be a negligible impact to the settings of these heritage assets. This is due to screening by existing woodland and the c.0.9km distance from the Scheme. Therefore, the assets at Ravensworth Castle are not considered further. Where there is an impact on the setting of a heritage asset, the assessment is presented in **paragraphs 6.8.11 to 6.8.22** below.

CONSTRUCTION

Below-Ground Archaeological Remains

- 6.8.2. All direct impacts on below-ground heritage assets, within the Scheme Footprint, would be permanent and irreversible. Works that have the potential to impact upon any remains present include ground levelling, topsoil stripping, the removal of existing road surfaces, construction of temporary compounds and haulage roads, and the installation of infrastructure items such as lighting columns, manholes, culverts or chambers, utilities cables, drainage pipes, and balancing ponds. It is anticipated that changes to drainage patterns and groundwater levels would have negligible impacts on in situ buried archaeological remains. Any form of landscaping, including the planting of trees for screening, also has the potential to disturb buried archaeological remains. The level of impact cannot be assessed without a better understanding of the extent, survival and significance of archaeological remains through investigation.
- 6.8.3. Due to previous ground disturbance, no impacts are anticipated from the construction related works proposed within the curtilage of the existing highways footprint. The proposed temporary compound area (junction 67 compound) to the south of the A1 (see **Figure 2.3** of this ES (**Application Document Reference: TR010031/APP/6.2**)) is the site of a former gas storage facility, therefore any below-ground archaeological remains within its footprint will have been removed or disturbed during its construction.
- 6.8.4. The site of Lamesley Wagonway (4124) extends into the footprint of a proposed temporary compound area north of the existing A1, as shown on **Figure 2.3** of this ES (**Application Document Reference: TR010031/APP/6.2**). Any ground moving activities associated with the construction of this compound have the potential to disturb any below or above ground remains associated with this asset, which could include remains of the track, track bed material or drainage ditches.
- 6.8.5. The site of Lamesley Quarry (3875) extends into an area of permanent and temporary land-take associated with the Scheme, located immediately east of Bowes Railway SM. Any archaeology associated with the historic stone extraction would be potentially disturbed by construction related activities associated with widening of the A1 carriageway at this location. The archaeological remains could include evidence for extraction and off-site transportation.
- 6.8.6. The original course of Long Bank Road follows the projected alignment of the Gateshead to Chester-le-Street Roman road (276). The asphalt surfaced lane is now flanked by

hedgerows and trees, beyond which are fields. To enable construction of the Longbank Bridleway Underpass, construction vehicles would access a compound along this lane from the B1296. Although no widening of the lane is proposed, any ground disturbance required to enable this access has the potential to disturb material associated with the asset. Associated remains such as drainage ditches and kerb stones may survive in the fields immediately adjacent to the asset, within the footprint of the proposed compound area adjacent to the lane.

- 6.8.7. The Scheme would require the bridge that presently carries the A1 over the Bowes Railway (SM1003723) to be widened to accommodate the road improvements. This would require the widening of Longbank Bridleway Underpass with an elongated structure of similar design. The construction of the underpass would necessitate the excavation of two foundation trenches, each 15-17m in length, and the drilling of piles at approximately every 1 m within the trenches. Excavations associated with this would disturb or remove any below-ground remains associated with the construction of the railway from the Industrial period. Features to be expected include trackside ditches, sinkings for sleeper blocks, sections of track or material associated with the trackbed.

Potential Below-Ground Archaeological Remains

- 6.8.8. The assets identified within the Study Areas suggests that there is potential for hitherto unknown archaeological remains to survive within areas of previously undisturbed ground from the Prehistoric period onwards. Construction works could impact on any such remains. The impacts would be permanent and irreversible. The geophysical survey undertaken in October 2018 at the site of the proposed compound (Eighton Lodge) and areas of new land take (**Appendix 6.2** of this ES (**Application Document Reference: TR010031/APP/6.3**)) revealed no anomalies of archaeological interest or archaeological features other than evidence of past ploughing. Therefore, the potential of unknown archaeological remains is low.

Earthwork Archaeological Remains

- 6.8.9. Earthworks remains of ridge and furrow ploughing extend into areas of temporary and permanent land take immediately to the west of the Bowes Incline Hotel and at the site of the proposed compound south of Low Eighton. These earthworks are likely to be levelled during ground preparations to enable construction of the new carriageway and would result in the total loss of the sections of the earthworks. The impacts would be permanent and irreversible.

Built Heritage

- 6.8.10. The construction of the Longbank Bridleway Underpass would necessitate the removal of a section of masonry retaining wall associated with the Scheduled Bowes Railway (SM1003723). This would result in physical impacts including the loss of sections of the retaining wall and the effects would be permanent and irreversible. There are no proposals to significantly alter the drainage arrangements in this area. The SM is not known currently to suffer from the effects of vibration due to its robust and earthwork form. The vibration

levels and frequency of vibration are not expected to increase as a result of the Scheme, and therefore no significant effects from vibration are anticipated. Potential construction vibration impacts on Bowes Railway SM can be found in **Chapter 11 Noise and Vibration, paragraph 11.4.27-28** of this ES (**Application Document Reference: TR010031/APP/6.1**).

Settings

- 6.8.11. As detailed in **Section 2.5** of this ES, the design of the carriageway, bridges or underpasses would be in keeping with what presently exists and permanent land take would be kept to a minimum. The Scheme to the north of junction 67 (Coal House) proposes works associated with the construction of verge mounted traffic signs. Works for the Scheme would be carried out within and outside of the highway boundary. The main construction site compound would be sited on land south-east of junction 67 (Coal House) and an additional compound in fields north-east of junction 66 (Eighton Lodge). Additional working compounds would be located to the north of Longbank Bridleway Underpass and to the east of Allerdene Bridge. (**Figure 6.2** of this ES (**Application Document Reference: TR010031/APP/6.2**)).
- 6.8.12. As detailed in **Section 2.7** of this ES there are two options for Allerdene Bridge: Allerdene embankment option and Allerdene viaduct option. Impacts of either option would be limited to impacts on setting. It is likely that the design of Allerdene viaduct option would allow views to the north between the viaduct piers. The design of the Allerdene embankment option would obstruct views to the north but proposed planting mitigation would blend into the existing landscape. However, both would impact on the same assets, unless noted otherwise, both options would create the same level of impact to the setting of an asset.
- 6.8.13. Due to the localised nature of the proposed works to the A1, there would be no significant changes to the setting of the majority of designated heritage assets that have been identified in the wider Study Area. The impact of the works on the setting of heritage assets is presented in full in Section 8 of the HEDBA (**Appendix 6.1** of this ES (**Application Document Reference: TR010031/APP/6.3**)) with the results summarised below.
- 6.8.14. Harm to the settings of designated heritage assets has been assessed against the construction of the Long Bank Bridleway Underpass at Bowes Railway, the construction and use of a temporary compound bordering Lamesley Village CA (11883) and the construction of a new carriageway bordering Ravensworth Park CA.
- 6.8.15. Works associated with either the construction of the Allerdene embankment option or the Allerdene viaduct option are likely to have minor impacts on the setting of Lamesley CA (11883), the Church of St Andrew (1025154) and Temple Meads (1025153).
- 6.8.16. Permanent adverse impacts to the importance of Bowes Railway SM would occur as a result of the loss of a section of the retaining wall. There would also be temporary adverse impacts from the blocking of key views and the temporary loss of public access to the asset.
- 6.8.17. There would be an adverse impact to the cultural heritage significance of Lamesley CA from the siting of temporary construction compounds adjacent to the CA and the permanent loss of rural land that creates the setting of the asset.

- 6.8.18. The construction phase of the Northern Gas Networks (NGN) Above Ground Installation building (AGI) to be located north-east of Lamesley CA, would adversely impact upon the rural setting of the asset through an increase in noise levels, light spill, movement and activity from construction-related traffic.
- 6.8.19. The impact on the setting of the Angel of the North has been assessed as potentially beneficial, as the Landscape Mitigation Design (**Figure 7.6** in the ES (**Application Document Reference: TR010031/APP/6.2**) in areas where planting would be cleared for construction work includes for replanting which would be less dense than that currently seen.

OPERATION

- 6.8.20. There would be no further physical impact to any of the archaeological assets during the operational phase of the Scheme.
- 6.8.21. Harm to the settings of the assets listed above has been considered during the operation of the Scheme. There would be permanent impacts from the operation of the Scheme on the setting of the Bowes Railway SM due to the loss of associated fabric, which therefore impacts upon its significance.
- 6.8.22. Harm to the settings of Lamesley CA (11883), the Church of St Andrew (1025154) and Temple Meads (1025153) is likely to occur during the operation phase of the Allerdene embankment option. The design of the Allerdene embankment option would obstruct views to the north but proposed planting mitigation would blend into the existing landscape.
- 6.8.23. Harm to the settings of Lamesley CA (11883), the Church of St Andrew (1025154) and Temple Meads (1025153) is likely to occur during the operation phase of the Allerdene viaduct option. The design of Allerdene viaduct option would allow views to the north between the viaduct piers.
- 6.8.24. The operational phase would have permanent positive impacts on the setting of the Angel of the North, improving the experience of the asset and allowing for greater numbers of visitors. Reduced planting will give greater potential for fortuitous views of the asset, however once the Scheme is operational, views from the road towards the Angel of the North will be slightly more restricted due to the installation of gantries.

6.9 DESIGN, MITIGATION AND ENHANCEMENT MEASURES

DESIGN

Setting

- 6.9.1. Historic England guidelines (**Ref 6.7**) published in 2017 for the mitigation of the impact of a development on the setting of a heritage asset suggest that in the first instance impacts are best mitigated either by relocation of the development or changes to its design. Where relocation of the development is not possible, good design alone may be capable of reducing the harm. For the Scheme, relocation of the development is not possible.

- 6.9.2. For some developments affecting setting, the design of a development may not be capable of sufficient adjustment to avoid or significantly reduce the harm, for example where impacts are caused by fundamental issues such as the proximity, location, scale, prominence or noisiness of a development. In other cases, good design may reduce or remove the harm, or provide enhancement, and design quality may be the main consideration in determining the balance of harm and benefit.
- 6.9.3. South of the Angel of the North sculpture, existing woodland planting within the highway soft estate would be the subject of woodland enhancement measures. This would include thinning operations and pruning in order to provide greater visibility of the sculpture in views from the A1 corridor and more widely within the surrounding landscape. This would be beneficial to the asset.

MITIGATION

Potential Below-Ground Archaeological Remains

- 6.9.4. Current legislation draws a distinction between archaeological remains of national or international importance and other remains considered to be of lesser importance. Those perceived to be of international or national importance may require preservation in situ, whilst those of lesser importance may undergo archive recording, where they are of Regional/County or Local/Borough importance.
- 6.9.5. In consultation with the Tyne and Wear Archaeology Officer, a Written Scheme of Investigation (WSI) for archaeological remains would be submitted to and approved by the SoS in consultation with the local authority prior to the commencement of any works on site.
- 6.9.6. In mitigation for the impact to the Bowes Railway SM (1003723), Historic England has requested that a mitigation strategy is prepared to ensure adequate archaeological monitoring of all groundworks within the scheduled area as detailed in **paragraph 6.9.7** below. This mitigation strategy would be included in a WSI agreed with Historic England.

Above Ground Archaeological Remains

- 6.9.7. Should the DCO be granted, Historic England has requested that the section of masonry retaining wall associated with Bowes Railway SM (1003723) to be demolished is dismantled by a suitably qualified archaeologist to record any archaeological features. A method statement would be produced for these works and would form part of the WSI. A written, drawn and photographic record of the dismantling would be compiled by the archaeologist. This record would be approved by the SoS in consultation with Historic England. Refer to **Chapter 11 Noise and Vibration paragraph 11.9.11** of this ES (**Application Document Reference: TR010031/APP/6.1**) for details on piling works methodology.
- 6.9.8. Prior to construction taking place within the field containing the ridge and furrow earthworks, adjacent to the Bowes Railway Hotel (**Figure 6.3** of this ES (**Application Document Reference: TR010031/APP/6.2**)), an archaeological topographic survey of the entire field would be undertaken in accordance with Historic England metric survey standards. A method statement would be produced for these works and would form part of the WSI.

ENHANCEMENT

- 6.9.9. Historic England, in their role as statutory consultees for statutory designated assets, has recommended that an interpretation panel be placed on the section of Bowes Railway closest to the proposed works. In response to this a panel would be designed to present and interpret the history and importance of the Bowes Railway SM. In this way the experience of the Bowes Railway SM would be enhanced for the local community. The nature and type of board would be discussed with the Local Authority officers (e.g. Public Rights of Way and Archaeology/Conservation officers, although these are not statutory consultees for scheduled monuments) and the Bowes Railway Trust during the next stage of the Scheme. If the location of the board is within the Bowes Railway SM area, this would also need to be agreed with Historic England. The main contractor would be responsible for installing the panel.
- 6.9.10. To mitigate the harm to the retaining wall of Bowes Railway SM (1003723) and to enhance the appearance of the SM, Historic England has also requested that a section of surviving wall associated with Bowes Railway SM of equal length to that being demolished would be repaired. Prior to any repair works commencing, the section of wall to be repaired, and the repointing and conservation methodology, would be agreed with Historic England. The repair works would be carried out by a qualified stone mason experienced in using lime mortar.

6.10 ASSESSMENT OF LIKELY SIGNIFICANT EFFECTS

- 6.10.1. The effects of the Scheme on designated and non-designated assets are presented in **Table 6-10** and **Table 6-11**. This assessment assumes the adoption of mitigation measures detailed above. Where an asset or its setting is not listed below, it is considered that the significance of effects are slight, or below, and therefore it is not considered that there would be significant effects as a result of the Scheme. Where applicable and unless noted otherwise, the impacts from either the Allerdene embankment option or the Allerdene viaduct option are the same.

CONSTRUCTION

Designated Heritage Assets

- 6.10.2. The Bowes Railway SM is an asset of **high** value. The magnitude of impact to it from construction would be **minor** which would result in a **moderate adverse** significance of effect. This would be equally applicable for Allerdene embankment option and Allerdene viaduct option.
- 6.10.3. The magnitude of impact on the setting of Bowes Railway SM would be **major adverse** during construction resulting in a **major adverse** significance of effect. This would be equally applicable for Allerdene embankment option and Allerdene viaduct option.
- 6.10.4. The Church of St Andrew is of **medium** value and there would be a **moderate adverse** magnitude of impact during construction on the setting of the asset which would result in a

slight adverse significance of effect (not significant). There would be no difference in the effects for Allerdene embankment option and Allerdene viaduct option.

- 6.10.5. Temple Meads (1025153) is of **medium** value and there would be a **moderate adverse** magnitude of impact during construction on the setting which would result in a **slight adverse** significance of effect (not significant). There would be no difference in the effects for Allerdene embankment option and Allerdene viaduct option.

Non-Designated Heritage Assets

- 6.10.6. Lamesley Village CA is of **medium** value, and there would be a **minor adverse** magnitude of impact on its setting during construction which would result in a **minor adverse** significance of effect (not significant).
- 6.10.7. The magnitude of impact on Lamesley Quarry (3875), which is of **medium** value, as a result of construction would be **moderate adverse** as it would be permanently removed or destroyed which would result in a **moderate adverse** significance of effect.
- 6.10.8. The magnitude of impact on Lamesley Wagonway (4124), which is of **medium** value, as a result of construction would be **moderate adverse** as it would be permanently removed or destroyed which would result in a **moderate adverse** significance of effect.
- 6.10.9. The magnitude of impact on ridge and furrow earthworks, which is of **medium** value, as a result of construction would be **moderate adverse** as it would be permanently removed or destroyed which would result in a **moderate adverse** significance of effect.
- 6.10.10. The magnitude of impact on Chester – le Street Roman Road (276), which is of **medium** value, as a result of construction would be **moderate adverse** as it would be permanently removed or destroyed which would result in a **moderate adverse** significance of effect.
- 6.10.11. Prior to a programme of intrusive archaeological evaluations within the Scheme, the presence of all below ground assets assessed remains unconfirmed and ultimately the significance of effect would be influenced by the presence, extent, date and preservation of buried assets. The assessment of effects is therefore based on a professional judgement on the information currently available.

OPERATION

Designated Heritage Assets

- 6.10.12. Bowes Railway SM is an asset of **high** value. The magnitude of impact to its setting during operation of the Allerdene embankment option or the Allerdene viaduct option would be reduced to **negligible**, which would result in a **slight adverse** significance of effect (not significant). This would be equally applicable for Allerdene embankment option and Allerdene viaduct option.
- 6.10.13. The magnitude of impact to the setting of the Church of St Andrew (1025154) which is of **medium** value would be reduced to **negligible** during operation, resulting in a **slight adverse** significance of effect (not significant). There would be no difference in the effects for Allerdene embankment option and Allerdene viaduct option.

- 6.10.14. The magnitude of impact to the setting of Temple Meads (1025153), which is **medium** value, would be reduced to **negligible** during operation, resulting in a **slight adverse** significance of effect (not significant). There would be no difference in the effects for Allerdene embankment option and Allerdene viaduct option.

Non-designated Heritage Assets

- 6.10.15. The magnitude of impact to the setting of Lamesley Village CA, which is of **medium** value, would be reduced to **negligible** during operation, resulting in a **slight adverse** significance of effect (not significant).
- 6.10.16. The magnitude of impact on the setting of the Angel of the North, which is of low value, during operation option would be **moderate** beneficial resulting in a **minor beneficial** significance of effect (not significant). There would also be a **minor** adverse impact, resulting in **slight adverse** significance of effect (not significant).

6.11 MONITORING

- 6.11.1. A programme of archaeological monitoring (watching brief) would be undertaken during the excavation within the railway cutting associated with Bowes Railway SM.
- 6.11.2. An archaeological topographic survey of the entire field containing the ridge and furrow earthworks would be undertaken. A method statement would be produced for these works and would form part of the WSI.

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