

**Byers Gill Solar
EN010139**

6.2.8 Environmental Statement

Chapter 8 Cultural Heritage and Archaeology

Planning Act 2008

APFP Regulation 5(2)(a)

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

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8. Cultural Heritage and Archaeology

8.1. Introduction

- 8.1.1. This Environmental Statement (ES) chapter presents the impact assessment and likely significant effects of Byers Gill Solar (the Proposed Development) on Cultural Heritage and Archaeology.
- 8.1.2. The Environmental Impact Assessment (EIA) Scoping Report (ES Appendix 4.1) (Document Reference 6.4.4.1) sets out the scope of the Cultural Heritage and Archaeology assessment. In summary, the following have been assessed in this ES:
- Designated cultural heritage assets, including scheduled monuments, listed buildings, registered parks and gardens and conservation areas; and
 - Non-designated cultural heritage assets including archaeological remains, historic buildings and the historic landscape.
- 8.1.3. This ES chapter aims to:
- Detail the requirements of principal legislation, policy and guidance relevant to this assessment;
 - Detail the methodology followed for the assessment, and any associated assumptions and limitations;
 - Describes the existing environment surrounding the Proposed Development;
 - Describe the potential effects of the Proposed Development on Cultural Heritage and Archaeology and describe the mitigation measures.
- 8.1.4. This ES chapter is supported by the following appendices:
- ES Appendix 8.1: Historic Environment Desk-based Assessment (HEDBA) (Document Reference 6.4.8.1);
 - ES Appendix 8.2: Historic Environment Settings Assessment (Document Reference 6.4.8.2);
 - ES Appendix 8.3: Detailed Gradiometer Survey Report (Document Reference 6.4.8.3);
 - ES Appendix 8.4: Phase 1 Evaluation Trenching Report (Document Reference 6.4.8.4); and
 - ES Appendix 8.5: Archaeological Management Strategy (Document Reference 6.4.8.5).
- 8.1.5. This ES chapter is also supported by ES Figures 8.1 to 8.4 (Document References 6.3.8.1 and 6.3.8.4.)
- 8.1.6. This ES chapter and the supporting ES Appendices and ES Figures have been prepared by competent experts at Wessex Archaeology. Full details of these competent experts

are provided in ES Appendix 1.1 Competent Expert Evidence (Document Reference 6.4.1.1).

- 8.1.7. An assessment of potential cumulative effects has been made in relation to Cultural Heritage and Archaeology within ES Chapter 13 Cumulative Effects (Document Reference 6.2.13).

8.2. Legislative and policy framework

- 8.2.1. This section identifies the key legislation, planning policy and guidelines relevant to the scope and methodology for the Cultural Heritage and Archaeology assessment.

Legislation

- 8.2.2. The following key legislation is applicable to the assessment:

- The Ancient Monuments and Archaeological Areas Act 1979;
- The National Heritage Act 1983;
- The Planning (Listed Buildings and Conservation Areas) Act 1990; and
- The Hedgerows Regulations 1997

Policy

- 8.2.3. Under Section 104 of the Planning Act 2008 (the Act), the Secretary of State (SoS) is directed to determine a DCO application with regard to the relevant National Policy Statement (NPS), the local impact report, matters prescribed in relation to the Proposed Development, and any other matters regarded by the SoS as important and relevant. Following their designation on 17 January 2024, there are three NPSs which are considered to be 'relevant NPS' under Section 104 of the Act:

- Overarching NPS for energy (NPS EN-1)
- NPS for renewable energy infrastructure (NPS EN-3)
- NPS for electricity networks infrastructure (NPS EN-5)

- 8.2.4. It is considered that other national and local planning policy will be regarded by the SoS as 'important and relevant' to the Proposed Development. A detailed account of the planning policy framework relevant to the Proposed Development is provided in the Planning Statement (Document Reference 7.1). The Policy Compliance Document (Document Reference 7.1.1) evidences how this assessment has been informed by and is in compliance with the NPSs and relevant national and local planning policies. It provides specific reference to relevant sections of the ES which address requirements set out in policy.

Guidance

- 8.2.5. The following guidance has informed the assessment:

- Chartered Institute for Archaeologists, 2020. Standards and guidance for historic environment desk-based assessment [12];
- Historic England, 2015. GPA 2 – Managing Significance in Decision-Taking in the Historic Environment [13];
- Historic England, 2017. GPA 3 – The Setting of Heritage Assets [14];
- Historic England, 2019. Statements of Significance: Historic England Advice Note 12 [15];
- Department for Levelling Up, Housing and Communities 2019. Planning Practice Guidance: Historic Environment [16];
- Historic England 2020. GPA 4 – Enabling Development and Heritage Assets [17];
- Historic England 2021. Commercial renewable energy development and the historic environment Historic England Advice note 15 [18]; and
- IEMA, 2021. Principles of Cultural Heritage Impact Assessment in the UK [19].

8.3. Scoping and Consultation

8.3.1. This section describes the scope of this Cultural Heritage and Archaeology assessment, including how the assessment has responded to the Scoping Opinion. A description of the consultation and engagement undertaken with relevant technical stakeholders to develop and agree this scope is also provided.

Scoping

8.3.2. The EIA Scoping Report set out the proposed scope and assessment methodologies to be employed in the EIA and is provided in ES Appendix 4.1 EIA Scoping Report (Document Reference 6.4.4.1).

8.3.3. In response to the EIA Scoping Report, a Scoping Opinion was received from the Planning Inspectorate (PINS) on 6 December 2022 and is provided in ES Appendix 4.2 EIA Scoping Opinion (Document Reference 6.4.4.2)

8.3.4. ES Appendix 4.3 EIA Scoping Opinion Response Matrix (Document Reference 6.4.4.3) contains a table that outlines all matters identified by PINS in the EIA Scoping Opinion and how these have been addressed in the ES or other DCO application documentation.

Consultation

8.3.5. Engagement in relation to Cultural Heritage and Archaeology has been undertaken within a number of stakeholders throughout the EIA process. The stakeholders consulted were:

- Historic England;
- Darlington Borough Council;
- Durham County Council; and

- Stockton on Tees Council.

8.3.6. The Consultation Report (Document Reference 5.1) submitted alongside the DCO application contains a full account of the previous statutory consultation process and issues raised in feedback. Matters raised regarding the scope, methodology or mitigation considered as part of the Cultural Heritage and Archaeology assessment were then subject to further discussions directly with stakeholders.

8.3.7. Table 8-1 provides a summary of engagement with relevant stakeholders which has been undertaken to inform the EIA.

Table 8-1 Stakeholder engagement relating to Cultural Heritage

Stakeholder	Comments	Response
<p>Historic England (HE)</p>	<ul style="list-style-type: none"> ▪ Consultation meeting arranged to discuss assessment 	<ul style="list-style-type: none"> ▪ Consultees were presented with a summary of the up-to-date assessment which was submitted at PEIR and included within ES Appendix 8.2 Historic Environment Settings Assessment (Document Reference 6.4.8.2). ▪ HE were satisfied with the methodology applied, the asset identified within the assessment and the level of detail set out. ▪ HE wanted to undertake their own assessment of the assets in the area with a follow up meeting prior to submission of final ES.
	<ul style="list-style-type: none"> ▪ Consultation meeting on 5 October 2023 to discuss designated heritage assets following Historic England’s visit to site. 	<ul style="list-style-type: none"> ▪ During this meeting, consultees were updated on the revised design since submission of PEIR and on the completed Phase 1 evaluation trenching. ▪ Consultees provided an update on their internal work including their positions on the identified heritage assets for detailed assessment. ▪ Consultees agreed in general with the three assets identified as requiring detailed assessment (Bishopton listed buildings, Bishopton Conservation Area, and Scheduled Monument). Noted importance of understanding potential for change to the north of the Conservation Area when moving along the footpath from Old Stillington to the north of the Church of St Peter towards Bishopton. ▪ Assessment and understanding of the importance of this view has been included within the settings assessment in Section 8.10

Stakeholder	Comments	Response
<p>Durham County Council Archaeology Team representing Darlington Borough Council</p>	<ul style="list-style-type: none"> ▪ Consultation meeting on 13 March 2023 to discuss evolving information from desk-based work and geophysics and next steps. 	<ul style="list-style-type: none"> ▪ During this meeting, the consultees noted the work undertaken to date including emerging geophysical survey results and indicated the requirement for some intrusive evaluation to accompany the application. This evaluation is to be focused on anomalies identified from the geophysical survey to understand their extent and significance with work on 'blank' area able to be undertaken at a later stage. ▪ Also, noted was that the HER is now open and has a range of aerial photographs which may be useful and that an in-person visit could be undertaken.
<p>Tees Archaeology Team</p>	<ul style="list-style-type: none"> ▪ Consultation meeting on 13 March 2023 to discuss evolving information from desk-based work and geophysics and future steps 	<ul style="list-style-type: none"> ▪ Consultees agreed with the archaeological strategy above as most works within the team's remit are located along existing roads, however, the principle of determining the significance of anomalies visible on the geophysical survey was acceptable. ▪ Also, noted was that the HER is now open and has a range of aerial photographs which may be useful and that an in-person visit could be undertaken.
	<ul style="list-style-type: none"> ▪ Correspondence to confirm approval of mitigation strategy November 2023 to January 2024 (via email) 	<ul style="list-style-type: none"> ▪ Consultee agreed with comments provided by DCC Historic Environment Record Officer (see below) and noted some changes in text.
<p>Historic Environment Record Officer, Durham County Council</p>	<ul style="list-style-type: none"> ▪ Approval of proposed archaeological strategy (via email) 	<ul style="list-style-type: none"> ▪ Following the MS Teams meetings in March, the general scope of the archaeological strategy to support the ES which included the provision for a phased approach to evaluation trenching with the first phase in support of the ES and the second phase to follow post-determination was agreed over email with an Outline WSI (now superseded by ES Appendix 8.5: Archaeological Management Strategy (Document Reference 6.4.8.5)) was sent to and approved by the HER officer.
	<ul style="list-style-type: none"> ▪ Approval of WSI for Phase 1 evaluation trenching – June 2023 (via email) 	<ul style="list-style-type: none"> ▪ Following the agreement in principle of the scope of Phase 1 evaluation trenching to support the Environmental Statement, the specific Written Scheme of Investigation for the evaluation was sent to and agreed with the HER officer.

Stakeholder	Comments	Response
	<ul style="list-style-type: none"> Correspondence to confirm approval of mitigation strategy November 2023 to January 2024 (via email) 	<ul style="list-style-type: none"> A draft of the Archaeological Management Strategy was sent to the HER officer who provided a number of comments on elements including significance, design mitigation measures, reporting and on the likely requirements for trenching numbers.
<p>Darlington Borough Council Conservation Officer</p>	<ul style="list-style-type: none"> Correspondence to confirm any concerns etc prior to ES submission January 2024 (via email) 	<ul style="list-style-type: none"> Officer not familiar with the site, however, asked whether non-designated heritage assets have been included in the assessment. These have been included with the data gathered from the HER and those located within Conservation Areas. No specific, individual non-designated built heritage assets were identified which required more detailed assessment.

8.4. Assessment Methodology

8.4.1. This section outlines the methodology employed for assessing the likely significant effects on Cultural Heritage and Archaeology from the construction, operation and decommissioning of the Proposed Development.

Criteria for determining the sensitivity of receptor

8.4.2. Significance in relation to the value of a heritage asset will be referred to throughout the Cultural and Heritage Archaeological Assessment as ‘heritage significance’.

8.4.3. The value of a heritage asset is determined through the sum of its interests (archaeological, architectural, artistic or historic), as defined in the NPS EN1 (which incorporates principles set out in PPS5 or its successors, i.e. NPPF) and expanded upon in Historic Environment Good Practice Advice in Planning 2.

8.4.4. For the purposes of the Cultural Heritage and Archaeology assessment, designation status is used as a proxy for heritage significance as these hold an inherent heritage significance which justified its designation.

8.4.5. This determination is further justified through the legal protection afforded to the designations and their meaning in terms of the application of planning policy.

8.4.6. Using this proxy criteria in addition to national planning policy and guidance and through professional judgement, Table 8-2 below encompasses both designated heritage and non-designated heritage assets.

8.4.7. For heritage assets there is an explicit distinction between their heritage significance and their ‘sensitivity to change’. Some assets of the highest designation will not be sensitive to the types of changes proposed, whilst others will be more so. This will be assessed on a case-by-case basis in the assessment text for each asset, as appropriate.

Table 8-2 Levels of Heritage Significance

Heritage significance	Description
High	<ul style="list-style-type: none"> ▪ World Heritage Sites ▪ Scheduled Monuments ▪ Grade I and II* listed buildings ▪ Registered Battlefields ▪ Grade I and II* Registered Parks and Gardens ▪ Non-designated assets of equivalent heritage significance which are potentially nationally important.
Medium	<ul style="list-style-type: none"> ▪ Grade II listed buildings ▪ Regionally important archaeological features and areas (as defined in the HER) ▪ Conservation Areas, which are assets considered to be regionally important.
Low	<ul style="list-style-type: none"> ▪ Sites and features noted as locally important in the HER, other non-designated features of heritage significance.
Negligible	<ul style="list-style-type: none"> ▪ Assets compromised by poor preservation and/or poor contextual association, or very common archaeological features/buildings of little or no value at local or other scale

8.4.8. While the categorisation of listed buildings by Historic England implies different levels of heritage significance, as reflected in Table 8-2, all listed buildings are afforded the same level of legal protection.

8.4.9. Professional judgement will be used in determining heritage significance using the nominal levels set out in Table 8-2 and where assets are placed in a different category to those set out above, a rationale and justification will be made explicit in the assessment text, where relevant.

Criteria for assessing magnitude of change

8.4.10. Magnitude of change will be assessed through the nature of a predicted impact, which is set out in Table 8-3.

8.4.11. Impacts from development can be direct or indirect.

8.4.12. Direct impacts are permanent and are caused by construction activities. The loss of archaeological assets or historic buildings cannot be replaced or recreated, while damage to archaeological assets cannot be repaired.

8.4.13. Indirect impacts can occur through changes in setting (arising from visual intrusion, alteration of non-visual relationships etc.) which may cause a reduction in the contribution that setting makes to an asset's heritage significance, so as to diminish that asset's overall heritage significance, and/or affect the ability to experience and/or appreciated that heritage significance.

Table 8-3 Magnitude of change

Level of impact	Description
High	<p>Total loss of or major physical damage to or significant alteration to a site, building or other feature.</p> <p>Extensive change (e.g. loss of dominance, intrusion on key view or sightline) to the setting of a scheduled monument, listed building or other feature registered as nationally important, which may lead to a major reduction in the contribution of that setting to the heritage significance of the asset so that the asset loses heritage significance, and a major reduction in the ability to experience and/or appreciate that heritage significance.</p>
Medium	<p>Damage or alteration to a site, building or other feature. Encroachment on an area considered to have a high archaeological potential.</p> <p>Change in setting (e.g. intrusion on designed sight-lines and vistas) to monuments / buildings and other features, which may lead to a moderate reduction in the contribution of that setting to the heritage significance of the asset. Change/reduction in the ability to experience/appreciate that heritage significance.</p>
Low	<p>Minor damage or alteration to a site, building or other feature. Encroachment on an area where it is considered that low archaeological potential exists.</p> <p>Minor change in setting (e.g. above historic skylines or in designed vistas) of Monuments, Listed Buildings, sites and other features, which may lead to a small reduction in the contribution the setting makes to the heritage significance of the heritage asset, and limited loss of heritage significance. Minor change in or reduction of the ability to experience or appreciate the heritage significance of an asset.</p>
Negligible	<p>Limited or no physical effect.</p> <p>Limited or no change in setting with no change in the contribution that setting makes to the heritage significance of the asset. No change in the ability to experience or appreciate the heritage significance of the asset.</p>

Criteria for assessing significance of effect

- 8.4.14. The predicted significance of effect will be determined through a standard method of assessment based on professional judgement, considering both the heritage significance of the asset and the magnitude of change as detailed in Table 8-4.
- 8.4.15. Major and Moderate effects are considered to be significant in the context of the EIA regulations, while Minor and Negligible are considered not significant.
- 8.4.16. Effects can be beneficial or adverse and permanent or temporary, where temporary makes reference to effects limited to the construction phase of the Proposed Development.

- 8.4.17. All effects derived from direct impacts are permanent while those derived from indirect impacts are long term, but fully reversible upon decommissioning.

Table 8-4 Significance of effect

Heritage significance	Magnitude of change			
	High	Medium	Low	Negligible
High	Major	Major	Moderate	Negligible
Medium	Major	Moderate	Minor	Negligible
Low	Moderate	Minor	Minor	Negligible
Negligible	Negligible	Negligible	Negligible	Negligible

8.5. Assessment Assumptions and Limitations

- 8.5.1. This section provides a description of the assumptions and limitations to the Cultural Heritage and Archaeology assessment.
- 8.5.2. Data used to compile this assessment consists of information derived from a variety of source, only some of which have been directly examined for the purpose of this study. The assumption is made that this data, as well as that derived from other secondary sources, is reasonably accurate.
- 8.5.3. The Historic Environment Record (HER) is not a record of all surviving heritage assets but a record of the discovery of a wide range of archaeological and historic components of the historic environment. The information held within it is not complete and does not preclude the subsequent discovery of further elements of the historic environment that are, at present, unknown.
- 8.5.4. While every attempt was made to complete a geophysical survey of 100% of the Panel Areas, land access prevented approximately 19ha, or 2%, from being surveyed.
- 8.5.5. As there remains uncertainty as to the location of the cable routes for the Proposed Development, i.e. whether these will be within existing roads or off-road, these have not been included within any intrusive or non-intrusive surveys so as to limit any potential impacts where construction will not eventually occur. Provision for further archaeological work on off-road cable routes, if chosen, are set out within ES Appendix 8.5: Archaeological Management Strategy (Document Reference 6.4.8.5).

8.6. Study Area

- 8.6.1. A distance-based approach was undertaken to define the study areas for use within this assessment. For the assessment of effects to below ground archaeological remains and designated and non-designated heritage assets where there is a potential likely significant effect (upon their heritage significance) a 2 km study area has been used from the Order

Limits (Figure 8.1). This study area allowed for archaeological information on heritage assets within close proximity to the Proposed Development location to be collected to fully understand the potential for as yet unrecorded heritage assets to be present within the area potentially affected by the construction of the solar farm.

- 8.6.2. Any additional information gathered through survey or excavation for this assessment has been undertaken within Order Limits , including walkover surveys, geophysics and trial trench evaluation, as these provide specific evidence for potential direct impacts to known and unknown archaeological remains. Any identified remains have been assessed within the broader archaeological context defined in paragraph 8.6.1.
- 8.6.3. For the assessment of indirect effects, a 5 km study area around the Order Limits has been used to capture any highly designated heritage asset which have the potential to receive a likely significant effect (upon their heritage significance). For this assessment, taking into consideration the nature of the Proposed Development, these asset categories have been deemed to comprise Grade I and Grade II* listed buildings and Grade I and Grade II* registered parks and gardens. It is noted that there are no Grade II listed buildings with exceptional qualities, which would also be considered to have high heritage significance, present in the study area.

8.7. Baseline Conditions

- 8.7.1. This section provides a description of existing conditions in the study area.

Existing conditions

- 8.7.2. The purpose of this section is to describe the exiting heritage and archaeological conditions of the Order Limits and associated context in respect of which the assessment is undertaken.
- 8.7.3. Specific methodologies, including sources and any specific additional guidance are set out within ES Appendices 8.1 to 8.4 (Document References 6.4.8.1 to 6.4.8.4).

Prehistoric to Romano-British (970,000 BC to AD 410)

- 8.7.4. There is an overall lack of evidence for early Prehistoric activity within the 2 km study area and in the wider North East Region which can be explained as being the result of the harsh environmental conditions during the Palaeolithic and Mesolithic periods, compounded by a lack of consistent research.
- 8.7.5. Beyond the physical archaeological remains, however, geological and geoarchaeological information has indicated the presence of a former glacial large, approximately 3 km north-east of the Order Limits and a hippopotamus bone, located approximately 0.8 km east of Panel Area F. This indicates that there are conditions where the preservation of archaeological remains from these earlier periods is possible within the wider landscape, although these areas are likely to be limited in geographical spread with relevant deposits at great depths below the current ground surface.

- 8.7.6. The earliest evidence for human activity in the 2 km study area dates to the Neolithic period and comprises the recovery of a single flint scraper approximately 0.2 km to the north of the Proposed Development. The Neolithic period is characterised as the beginning stages of the transformation from the mobile lifestyle of Palaeolithic and Mesolithic populations towards a more settled pattern of living.
- 8.7.7. This transformation was classically referred to as the ‘Neolithic Revolution’, although research in the past 20 to 30 years has provided substantive evidence to indicate the process of adopting farming practices over those used by the hunter-gatherer populations was long and drawn out. Resource exploitation remained broadly similar with rivers and areas of lower lying land proving to be an attractive location for activity, further demonstrated by widespread clearance of forests to provide areas suitable for more pastoral activities.
- 8.7.8. As settlement patterns became more sedentary into the Bronze Age, the use of the landscape begins to change more noticeably. In the broader landscape, this is most obvious through the move from individual to communal burial practices which manifests in the establishment of round barrows, replacing the long barrows of the earlier prehistoric periods. These monuments are often found on the free draining soils of the Cadeby Formation (formerly the Magnesian Limestone) which runs through the Order Limits down to Nottinghamshire.
- 8.7.9. Definitive evidence for occupation and activity, however, remains sparse into the Bronze Age both within the study area and the wider north-eastern region with only a small number of flint finds recorded by either the Durham Historic Environment Record (DHER) or the Tees Sites and Monuments Record (TSMR).
- 8.7.10. The most substantial, and visible, change in evidence for occupation and indeed settlement comes during the Iron Age and into the Romano-British period. The Tees Valley has the greatest density of known Iron Age sites in the north-east which are dominated by rectilinear enclosures, eight of which are recorded within the study area with the closest located immediately to the north of the Order Limits at the Norton Substation. All eight enclosures were identified from cropmarks visible on aerial photographs, a technique which is particularly effective across the Cadeby Formation.
- 8.7.11. Confirmation of the provenance of these features has been provided in the form of evidence gathered from intrusive archaeological investigations undertaken at Faverdale, while lies beyond the 2 km study area approximately 3.7 km to the south-west of the Order Limits.
- 8.7.12. Cropmark features, including further rectilinear and circular enclosures, have been identified across the study area which, while not definitively attributed to the Iron Age and/Romano-British period, share similar characteristics to those noted in paragraph 8.7.10 above. This includes a concentration of enclosures immediately to the south of the Order Limits.

- 8.7.13. Until the prevalence of developer-funded excavations from the 1990s onwards, the scale and nature of the Romano-British occupation of the region was not fully understood as evidence was generally restricted to isolated findspots.
- 8.7.14. Since the 1990s, a much richer and deeper understanding of activity has been established which indicates that settlement patterns did not radically change after the invasion in AD 43, rather, that there was a continuity of culture and agricultural practices beyond the invasion.

Saxon to medieval (AD 411 to AD 1539)

- 8.7.15. Evidence of activity and occupation during the Saxon period in the North-East is generally focused on the large settlement centres like Hartlepool, Newcastle, Durham and Darlington which were all established prior to the Norman invasion in AD 1066. These settlement centres were closely associated with ecclesiastic establishments that formed the cornerstone of many aspects of life at this time, and beyond into the medieval period.
- 8.7.16. This close association is notable in the study area through the presence of a number of examples of churches within the settlements of Sadberge, Great Stainton and Aycliffe which contain masonry dating to the Saxon period within later structures.
- 8.7.17. Beyond these physical elements, there is little other evidence for activity in the Saxon period which is replicated across the region where definitive remains of Saxon occupation are limited. This does not necessarily indicate a lack of activity, but rather than the relatively ephemeral nature of the remains generally associated with Saxon sites coupled with the effects of later development. Most Saxon settlements remained occupied following the Norman Conquest with physical evidence for this period often either obscured or removed by alternations made even as early as the medieval period.
- 8.7.18. The pattern of village settlements began to be established over much of the midlands and north of England in the form of regular, planned, settlement centres during the 9th and 10th centuries. These were often focused on, or developed around, the fertile lowlands or the strongholds of nobles and religious sites due to areas being given permission to hold fairs or markets, encouraged by local lords to make money from taxation.
- 8.7.19. The power of local lords in the earlier centuries of the medieval period was administered through several means, one of which was the establishment of substantial fortified residences in the local landscape. The power these residences held were two-fold, the size and scale of the defensive structures were designed to deter any infiltration from outside while this prominence also served to reinforce the prominence and status of the resident lord over the surrounding landscape. The exploitation of the landscape and the revenue that generated, was the primary source of prestige and power.

- 8.7.20. One such residence is located within the study area and is now protected as a scheduled monument. A motte and bailey was constructed in the 12th century by Roger de Conyers as a result of a dispute with William Cumin and the need to fortify and lay claim to the settlement at Bishopton. The siting of the castle in a strategic and dominant location to the south of Bishopton village was a deliberate choice as a clear demonstration of secular power within the landscape.
- 8.7.21. Analysis of LIDAR data and aerial photography have revealed evidence for approximately 28 deserted medieval settlements (DMV) throughout the study area, and immediately beyond. These comprise the earthwork remains of two parallel lines of houses which face onto a broad, rectangular green with crofts to the rear and are thought to have been deserted (due to several factors including; the Black Death, declining economic viability, emparkment and enclosure) between the 13th and 15th centuries. The outskirts of these medieval settlements, and the rural areas surrounding them, are characterised by ridge and furrow earthworks and field systems, suggesting a dominant agricultural presence in this area during the medieval period.

Post-medieval to Modern (AD 1540 to present)

- 8.7.22. During the 17th to 19th centuries both the continuing use of the surrounding landscape for agricultural purposes and the rise of industrial production led to the expansion of the already established settlement centres at Aycliffe, Coatham Mundeville, Brafferton, Great Stainton and Sadberge and the establishment of development at Redmarshall, Carlton and Thorpe Thewles.
- 8.7.23. The industrialisation of the area was predominantly in the form of extractive industries with evidence of this within the study area in the form of limestone quarries to the south of Aycliffe and the Carlton Ironworks. The growth of this industrialisation was facilitated by the construction of railways and routeways across the region, including the Castle Eden Branch Railway and the West Hartlepool Railway which cross the eastern part of the study area.
- 8.7.24. Aside from the evidence for industrial activity, the study area is characterised by clear evidence for the continued use of the landscape for agricultural purposes throughout the post-medieval period, predominantly in the form of ridge and furrow earthworks and post-medieval field systems.
- 8.7.25. Modern activity within the study area is dominated by examples of both World War One and World War Two infrastructure, including war memorials and pillboxes. A record of a First World War airfield is located in fields to the south of Bishopton and is located within Panel Area E. This location was formerly home to Bishopton Landing Ground and opened as a World War One 3rd Class Night Landing Ground for use by 36(HD) Sqn in October 1916. The area covered 60 acres and was in use until the 13th August 1919.

- 8.7.26. As a Night Landing Ground, the airfield was likely sparse, comprising a basic level of timber huts or billets. Due to the small size and weight of the aircraft, the landing strip would not have been paved and would have comprised a grassy strip of land.
- 8.7.27. Despite the modern development of Stockton-on-Tees and Darlington, the study area largely retains its agricultural character with small villages and hamlets, many of which still demonstrate their historical character.

Geophysical Survey

- 8.7.28. The geophysical survey of the Order Limits report is included as ES Appendix 8.3 Detailed Gradiometer Survey Report (Document Reference 6.4.8.3) with a summary of the findings presented below.
- 8.7.29. By way of concordance between the terminology applied on the geophysics report and within the ES Chapter, the following sets out how the Panel Areas relate to the 'Areas' used in the report and is supported by ES Figure 8.3 Panel Area and Geophysics Areas Concordance (Document Reference 6.3.8.3):
- Geophysics Area 1 – Covering Panel Area A
 - Geophysics Area 2 – Covering Panel Area B and Panel Area C
 - Geophysics Area 3 – Covering Panel Area D and Panel Area E
 - Geophysics Area 4 – Covering Panel Area F
- 8.7.30. As discussed previously, as there remains uncertainty as to the location of the cable routes for the Proposed Development, i.e. whether these will be within existing roads or off-road, these have not been included within the geophysical survey remit so as to limit any potential impacts where construction will not eventually occur. Provision for further archaeological work on off-road cable routes if chosen, such as geophysical survey, are set out within ES Appendix 8.5: Archaeological Management Strategy (Document Reference 6.4.8.5).
- 8.7.31. Anomalies which have been interpreted as representing possible or probable archaeological remains are presented in ES Figure 8.4 Areas of Known and Potential Archaeology (Document Reference 6.3.8.4), accompanying this ES chapter, alongside those areas of confirmed archaeology identified during the Phase 1 evaluation (see paragraph 8.7.37 to paragraph 8.7.47 below).
- 8.7.32. The survey results have confirmed the technique is suitable for the underlying geological conditions and has returned data with easily definable contrast between anomalies and the ambient magnetic signature of the Order Limits. The confidence level in the accuracy of these results is therefore good.
- 8.7.33. Within Geophysics Area 1, the survey has identified a number of anomalies interpreted as field boundaries which are of uncertain origin, but likely to be medieval or earlier, potentially relating to activity during the Romano-British period. Elsewhere in this area,

the remaining anomalies relate to medieval and/or post-medieval ridge and furrow, post-medieval field boundaries and post-medieval extraction activity.

- 8.7.34. Within Geophysics Area 2, the survey has identified a number of enclosure ditches and evidence for settlement which are likely to be prehistoric, potentially as early as Bronze Age, and/or Romano-British in origin. Beyond this cluster of multi-phase occupation, further fragmented linear anomalies have been identified which could be of similar provenance to the possible settlement, although could equally be modern agricultural activity. Further evidence of medieval/post-medieval agricultural practices have also been encountered.
- 8.7.35. Within Geophysics Area 3, the survey has identified a number of anomalies interpreted as field boundaries which are of uncertain origin, but likely to be medieval or earlier, potentially relating to activity during the Romano-British period. The survey identified a number of curvilinear anomalies within the site of the Former Bishopton Airfield, although these are unlikely to relate to that use. The survey has also identified anomalies consistent with medieval and post-medieval agricultural activity including ridge and furrow along with some limited evidence for extraction activity.
- 8.7.36. Within Geophysics Area 4, the survey has identified a number of rectangular and sub-rectangular anomalies were identified which are likely to relate to prehistoric or Romano-British enclosures and also identified evidence of medieval/post-medieval agricultural activity including areas of ridge and furrow.

Evaluation

- 8.7.37. The evaluation comprised a total of 134 trenches which were targeted on anomalies identified within the geophysical survey of possible or probable archaeological provenance. The key aim of the evaluation was to determine the veracity of the geophysical survey results and, where archaeology was encountered, to establish its nature, extent and significance.
- 8.7.38. The evaluation identified four main areas of archaeological interest, with features and finds suggesting an Iron Age to Roman period date, most of the excavated features corroborated those identified in geophysical survey results, although some were either obscured by geology or not identified in the survey data.
- 8.7.39. These are presented along with anomalies from the geophysical survey in ES Figure 8.4 Areas of Known and Potential Archaeology (Document Reference 6.3.8.4).
- 8.7.40. The largest concentration of features was located to the west of Great Stainton (Figure 8.4: Area ES1) which mostly related to probable Iron Age occupation and included numerous ring-gullies, postholes and enclosure ditches. The occupation area is seemingly separated into two distinct sites with no evidence of Iron Age activity recorded in the intervening trenches, possibly suggesting the sites are discontinuous.

- 8.7.41. To the south of Oat Hill Farm, the evaluation uncovered two parallel ditches containing probable Iron Age pottery were recorded (ES Figure 8.4: Area ES2) (Document Reference 6.3.8.4) and while the features are visible in the geophysical survey results, it is difficult to determine their full extent from that data.
- 8.7.42. To the east of Brafferton, several enclosure ditches and gullies of a likely prehistoric date (ES Figure 8.4: Area ES3) (Document Reference 6.3.8.4) were uncovered.
- 8.7.43. Approximately 230m south of Brafferton, a segmented ring-ditch which was partially visible in the geophysics data is thought to represent the remains of a substantial roundhouse which includes interior pits and postholes (ES Figure 8.4: Area ES4) (Document Reference 6.3.8.4).
- 8.7.44. Beyond these key activity centres, the evaluation did not uncover any other significant archaeological remains.

Future Baseline

- 8.7.45. The general approach to defining future baseline for the Proposed Development is described in ES Chapter 4 Approach to EIA (Document Reference 6.2.4).
- 8.7.46. There are no anticipated likely changes to the baseline information for Cultural Heritage as the resource will not be altered or increased.
- 8.7.47. A future baseline would comprise greater records of the wider resource in the surrounding area along with a refined calibration of understanding of the significance of that resource.

8.8. Potential impacts

- 8.8.1. Based on the design of the Proposed Development during operation and associated construction and decommissioning activities, the Proposed Development has the potential to impact on Cultural Heritage and Archaeology during construction, operation and decommissioning.
- 8.8.2. Mitigation measures incorporated in the design and construction of the Proposed Development are reported as embedded mitigation in ES Chapter 2 The Proposed Development (Document Reference 6.2.2). Essential mitigation is reported in Section 8.9, design, mitigation and enhancement measures, of this ES chapter.
- 8.8.3. Potential impacts of the Proposed Development, prior to the implementation of the essential mitigation measures described in Section 8.9, are described in this section. The effects of the Proposed Development, accounting for this essential mitigation, are then described in Section 8.10.

Construction

- 8.8.4. Direct impacts occur during construction and are typically caused by physical disturbance associated with the Proposed Development through activities including, but not limited to:
- installation of the driven module mounting structures;
 - excavation associated with the foundations for transformers;
 - works associated with the installation of cabling which may include open cut trenching, Horizontal Directional Drilling (HDD) or through the use of a cable plough;
 - excavation / foundations associated with the installation of fencing and security measures;
 - excavation for access tracks;
 - excavation for foundations for Battery Energy Storage Systems (BESS) and an on-site substation;
 - hard and soft landscaping including new tree planting; and
 - any additional construction works which require excavation.
- 8.8.5. There will be no direct impacts outside of the footprint of these construction activities while there are no expected impacts on any standing structural remains.
- 8.8.6. The Proposed Development is not likely to alter the groundwater levels within the site. The nature of solar farms is such that only small piles are driven into the ground and large expanses of impermeable structures do not form part of the design. All access tracks have been designed so they are permeable and will not interrupt the natural flow of water within the site. The drainage strategy for the Proposed Development, as outlined in ES Appendix 10.1 Flood Risk Assessment and Drainage Strategy (6.4.10.1) states that the mitigation measures proposed will ensure greenfield runoff rates are maintained and there would be limited change in the distribution of surface and groundwater throughout the Order Limits.
- 8.8.7. There is the potential for effects upon the heritage significance through direct impacts during construction activities on the following heritage assets:
- Bishopton Landing Ground, a World War One airfield (H44096), an asset of Medium heritage significance which is of regional importance;
 - Large areas of post-medieval ridge and furrow throughout the Order Limits, an asset of Low heritage significance which is of local importance;
 - Areas of known archaeological remains identified during the Phase 1 evaluation trenching comprising:
 - An Iron Age/Romano-British settlement area (ES Figure 8.4: Area ES1) (Document Reference 6.3.8.4) an asset of Medium heritage significance which is of regional importance;

- A set of parallel Iron Age ditches (ES Figure 8.4: Area ES2) (Document Reference 6.3.8.4), an asset of Low heritage significance which is of local importance;
 - Several enclosures and associated features (ES Figure 8.4: Area ES3) (Document Reference 6.3.8.4), an asset of Medium heritage significance which is of regional importance; and
 - A probable roundhouse with internal features, likely dating to the Iron Age (ES Figure 8.4: Area ES4) (Document Reference 6.3.8.4), an asset of Medium heritage significance which is of regional importance.
- Anomalies identified from the geophysical survey relating to possible or probable archaeology. Based on the information gathered during the Phase 1 evaluation, it is highly likely that any encountered remains would be of at most regional importance which leads to a range of heritage significance from Negligible to Medium. These comprise:
 - A series of linear features likely to represent a field system of unknown date to the south of Hauxley Farm (ES Figure 8.4: Area ES5) (Document Reference 6.3.8.4) which are principally aligned east to west with a perpendicular feature bisecting in a north south alignment;
 - A group of anomalies between Viewley Hill Farm and Broad Lea which generally comprise disperse linear features along with a number of irregular shaped anomalies which could represent pits (ES Figure 8.4: Area ES6) (Document Reference 6.3.8.4). At the eastern side of the area, closest to Broad Lea are two parallel ditches;
 - A group of anomalies to the south of Woogra Farm (ES Figure 8.4: Area ES7) (Document Reference 6.3.8.4) which includes a possible rectangular shaped feature, possibly an enclosure;
 - A group of curvilinear anomalies located to the south-west of Bishopton on the site of the former airfield (ES Figure 8.4: Area ES8) (Document Reference 6.3.8.4); and
 - A group of anomalies including an L-shaped and C-shaped feature which could represent enclosures (ES Figure 8.4: Area ES9) (Document Reference 6.3.8.4).
 - As yet unknown archaeological remains. As their presence, extent and heritage significance remain unknown, it is not possible to definitely ascribe a level of heritage significance as this could range from Negligible to High ranging from limited to national importance.

Operation

- 8.8.8. The identification and refinement of designated heritage assets which had the potential for a likely significant effect through a change in their setting that may affect their heritage significance is set out in detail within ES Figure 8.2 Site Area and assets scoped in for detailed assessment.

- 8.8.9. In summary, a long list of designated heritage assets which had the potential to be impacted by the Proposed Development through a change in their setting was collated on the basis of the process set out during scoping and in line with industry standards and guidance. Following this exercise, this long list was reduced to a short list of nine designated heritage assets which were then considered in further detail.
- 8.8.10. Of those nine assets, only three were determined to be susceptible to a potential likely significance effect and therefore carried into the ES. The remainder of the assets were scoped out and not included within this assessment.
- 8.8.11. Effects on the heritage significance of the following designated heritage assets through a change in their setting where that setting makes contribution to their significance have been identified:
- Asset Group Three: Bishopton;
 - Bishopton Conservation Area; and
 - Motte and Bailey castle 400m south-east of Bishopton.

Decommissioning

- 8.8.12. At the end of the 40-year licencing period for the Proposed Development, the solar PV modules and associated infrastructure will be removed to decommission the Proposed Development. While the methodology for this is not currently set out in detail, the process for removing the built form of the Proposed Development is not expected to require any additional land take, nor is it expected to require any new intrusive excavation.
- 8.8.13. There would therefore be no additional impacts on any buried archaeological remains, either known or unknown, other than those already reported as occurring during the construction phase.

8.9. Embedded mitigation

- 8.9.1. The Proposed Development has been designed to avoid and prevent adverse environmental effects on cultural heritage through the process of design development and consideration of good design principles.
- 8.9.2. Mitigation measures incorporated in the design and construction of the Proposed Development, considering the potential impacts, are reported as embedded mitigation in ES Chapter 2 The Proposed Development (Document Reference 6.2.2). The effects of the Proposed Development are assessed considering embedded mitigation is in place and are reported in Section 8.10.
- 8.9.3. Where further mitigation is deemed required as a result of a potentially significant effect, this is termed essential mitigation. Essential mitigation is set out as part of the assessment of effects in Section 8.10.

- 8.9.4. A further definition of these classifications of mitigation and how they are considered in the EIA is provided in Section 4.5 in ES Chapter 4 Approach to EIA (Document Reference 6.2.4).

8.10. Assessment of likely significant effects

- 8.10.1. This section presents the likely effects on Cultural Heritage and Archaeology resulting from the construction, operation and decommissioning of the Proposed Development.
- 8.10.2. The assessment of effects takes into account the potential impacts to each receptor (as set out in Section 8.8) following the implementation of embedded mitigation (as set out in Section 8.9), notably those measures set out within the ES Appendix 8.5 Archaeological Management Strategy (Document Reference 6.4.8.5). Where required to mitigate potentially significant effects, essential mitigation measures are outlined as part of the assessment, and the overall significance of residual effects set out.

Construction

Direct effects

- 8.10.3. Through the application of embedded mitigation, impacts upon the following will be avoided entirely:
- An Iron Age/Romano-British settlement area (ES Figure 8.4: Area ES1)
 - Several enclosures and associated features (ES Figure 8.4: Area ES3); and
 - A probable roundhouse with internal features, likely dating to the Iron Age (ES Figure 8.4: Area ES4).
- 8.10.4. Bishopton Landing Ground, a World War One airfield (H44096).
- Although the geophysical survey has identified a number of curvilinear features within the area recorded by the HER as being occupied by landing ground, it is unlikely that these features relate to the asset. Based on the nature of the asset, there are unlikely to be any substantial archaeological remains associated with the landing ground.
 - As this area has not yet been subject to any intrusive trial trenching, it is not possible to definitively conclude that there are no remains associated with the landing ground preserved.
 - Following the Phase 2 evaluation trenching, should any features be present and attributed to the asset, which is of Medium heritage significance, the mitigation measures set out within ES Appendix 8.5 Archaeological Management Strategy (Document Reference 6.4.8.5) would be applied to preserve those remains in situ. This will result in a Negligible magnitude of change on an asset of Medium Significance, leading to a **Negligible Effect**, which is not significant.
 - Remains not associated with the landing ground will be subject to the effects set out in Paragraph 8.10.7.

- 8.10.5. Large areas of post-medieval ridge and furrow throughout the Order Limits.
- The Proposed Development would remove or disturb archaeological remains associated with the asset. Given the nature of the construction methodologies to be employed (piled foundations and narrow cable trenches) this would only affect a limited section of the full extent of the asset leaving the majority untouched which constitutes a Low magnitude of change.
 - As set out within ES Appendix 8.5 Archaeological Management Strategy (Document Reference 6.4.8.5), where areas have been determined to contain possible archaeological remains of Low or Negligible heritage significance, mitigation through will be applied in the form of a watching brief during construction.
 - The application of the mitigation measures will reduce the magnitude of change to Negligible as any physical impact would be reduced through preservation by record.
 - This would constitute a Negligible magnitude of change on an asset of Low heritage significance resulting in a **Negligible Effect**, which is not significant for the purposes of EIA.
- 8.10.6. A set of parallel Iron Age ditches identified in the Phase 1 evaluation trenching:
- The Proposed Development has the potential to remove some, if not all, of the archaeological remains associated with the asset. Given the nature of the construction methodologies to be employed (piled foundations and narrow cable trenches) this would only affect a limited section of the full extent of the asset leaving the majority untouched which constitutes a Low magnitude of change.
 - As set out within ES Appendix 8.5 Archaeological Management Strategy (Document Reference 6.4.8.5), where areas have been determined to contain possible archaeological remains of Low or Negligible heritage significance, mitigation through will be applied in the form of a watching brief during construction.
 - The application of the mitigation measures will reduce the magnitude of change to Negligible as any physical impact would be reduced through preservation by record.
 - This would constitute a Negligible magnitude of change on an asset of Low heritage significance resulting in a **Negligible Effect**, which is not significant for the purposes of EIA.
- 8.10.7. Anomalies identified from the geophysical survey relating to possible or probable archaeology.
- Based on the information gathered during the Phase 1 evaluation trenching, it is highly likely that any encountered remains would be of at most regional importance which leads to a range of heritage significance from Negligible to Medium.

- As the extent and nature of the of these anomalies has not yet been determined through intrusive investigation, the Proposed Development could remove all associated remains which would constitute a High magnitude of change.
- Where remains of Medium heritage significance are encountered, these will normally be mitigated through design measures as set out within ES Appendix 8.5 Archaeological Management Strategy (Document Reference 6.4.8.5) which will avoid any direct impacts to archaeological remains, removing any effects. This will result in a Negligible magnitude of effect on an asset of Medium Significance, leading to a **Negligible Effect**, which is not significant.
- Where remains of Low or Negligible significance are encountered, these will normally be mitigated through preservation by record which will reduce the magnitude of change to Medium or Low.
- This would constitute a Medium to Low magnitude of change on assets within a range of Negligible to Low heritage significance resulting in a **Negligible to Minor Adverse Effect**, which is not significant for the purposes of EIA.

8.10.8. As yet unknown archaeological remains.

- While the presence, extent and heritage significance of any archaeological remains is unknown, based on the information gathered during the Phase 1 evaluation trenching, it is highly likely that any encountered remains would be of at most regional importance which leads to a range of heritage significance from Negligible to Medium.
- As the extent and nature of the of these anomalies has not yet been determined through intrusive investigation, the Proposed Development could remove all associated remains which would constitute a High magnitude of change.
- Where remains of Medium heritage significance are encountered, these will normally be mitigated through design measures as set out within ES Appendix 8.5 Archaeological Management Strategy (Document Reference 6.4.8.5) which will avoid any direct impacts to archaeological remains, removing any effects.
- Where remains of Low or Negligible significance are encountered, these will normally be mitigated through preservation by record which will reduce the magnitude of change to Medium or Low.
- This would constitute a Medium or Low magnitude of change on assets within a range of Negligible to Low heritage significance resulting in a **Negligible to Minor Adverse Effect**, which is not significant for the purposes of EIA.

Indirect effects

- 8.10.9. Whilst there would necessarily be an increase in noise and visibility of the construction works arising from the presence of cranes, vehicles, flashing lights etc. within the Order Limits and accessing the Order Limits, these effects are temporary and short term, limited to working hours and for the duration of the construction programme.

- 8.10.10. None of the assets within the study area were identified within the settings assessment, ES Appendix 8.2 Historic Environment Settings Assessment (Document Reference 6.4.8.2), as being sensitive to these types of intrusions and while there may be some change in experience, the limited range and application would not result in a marked alteration in setting and thus will not lead to an effect to their heritage significance.
- 8.10.11. Specific indirect effects on heritage assets within the study area through a change in setting are considered below in relation to the final built form of the Proposed Development.

Essential mitigation

- 8.10.12. The Proposed Development has the potential to affect subsurface archaeological remains through intrusive construction activities.
- 8.10.13. In locations where the embedded mitigation measures have not been applied, i.e. those areas where the loss of archaeological remains is deemed acceptable, it is proposed to mitigate any potential effects through the implementation of a programme of archaeological works as set out within ES Appendix 8.5 Archaeological Management Strategy (Document Reference 6.4.8.5).
- 8.10.14. Based on the information gathered for this assessment, the heritage significance (and/or likely heritage significance) and the suitability of the available techniques, it is unlikely that any set piece excavations will be undertaken to preserve archaeological remains through record. However, to ensure a robust and proportionate approach can be taken should any remains deemed to be suitable for such an approach be encountered, provision is made within ES Appendix 8.5 Archaeological Management Strategy (Document Reference 6.4.8.5) for this eventuality.
- 8.10.15. All mitigation measures, their suitability and the conditions for their application have been agreed with the Archaeological Consultees as per Table 8-1 **Error! Reference source not found.**
- 8.10.16. Residual effects remain as assessed.

Enhancement

- 8.10.17. Archaeological remains are a finite resource whose heritage significance is determined through the information on past activity they could yield if excavated. This heritage significance is intrinsic to the remains as they are found and cannot be enhanced, only affected, by the Proposed Development.

Operation

- 8.10.18. Effects from indirect impacts to heritage assets occur as a result of development within their setting. The Proposed Development has the potential to change (diminish or otherwise harm) that setting and the contribution it makes to the heritage significance of the heritage asset.

- 8.10.19. Where the setting of a heritage asset does not contribute to its heritage significance, or if the area of development proposed does not lie within the setting of the heritage asset, no impact can occur.
- 8.10.20. Following the process set out in Section 8.4, the following assets have been taken forward for detailed assessment within this section (Figure 8.2):
- Asset Group Three: Bishopton;
 - Bishopton Conservation Area; and
 - The Scheduled Monument Mott and Bailey Castle 400m south-east of Bishopton.

Asset Group Three: Bishopton

- 8.10.21. The assets covered by this grouping comprises seven Grade II listed buildings located within the village of Bishopton. These assets have been grouped together for assessment due to their proximity and through their shared historic and spatial relationship which makes up the primary setting of the individual buildings.
- 8.10.22. A list of the constituent elements of this asset group is as follows:
- Manor Farmhouse, Bishopton (1185896);
 - Church of St Peter, Bishopton (1185897);
 - Musgrave Headstone 7 Metres West of Church of St Peter, Bishopton (1185898);
 - Remains of Village Cross 15 Metres West of Church of St Peter, Bishopton (1185899);
 - Springfield House with Farm Building on Right Return, Bishopton (1185900);
 - St John's House, Bishopton (1185901); and
 - Bishopton War Memorial, Bishopton (1433639).
- 8.10.23. These are also set out within Table 1 of ES Appendix 8.2 Historic Environment Settings Assessment (Document Reference 6.4.8.2).

Description of asset

- 8.10.24. The village of Bishopton follows a generally typical layout for a settlement with medieval origins arranged around The Green, High Street and Church View with the Grade II listed Church of St Peter located at the eastern end of the village forming a natural focal point.
- 8.10.25. The church dates to the 13th century and underwent significant rebuilding and restoration in the mid-19th century, although little original fabric remains from the earliest structures. Two listed buildings lie in close proximity to the church, the medieval stone cross and a headstone dedicated to Jane Musgrave.
- 8.10.26. The remaining listed buildings are located within the centre of the settlement with three relating to 18th and 19th century buildings and the First and Second World War memorial.

Description of setting

- 8.10.27. The setting of the constituent listed buildings within the village is defined by their historic, spatial and visual relationship with each other. This relationship allows for the development of the village to be appreciated and understood while also affording the close proximity to appreciate their architectural detailing.
- 8.10.28. Beyond the limits of the village, the wider setting of this asset group comprises the surrounding landscape which has retained a rural character since the medieval period at least, although was significantly altered in the late 18th and early 19th centuries through enclosure.

Significance

- 8.10.29. The significance of these assets is vested primarily in the historic and architectural interest of the constituent listed buildings which range from medieval to 20th century in origin and attest to the longevity of settlement at Bishopton.

Contribution of setting to significance

- 8.10.30. The immediate setting of this group of assets makes a positive contribution to their significance through the relationship between the constituent buildings which allows for an appreciation and understanding of their historic interest. This immediate setting also allows for an understanding of their architectural interest which is best appreciated in close proximity.
- 8.10.31. The wider setting of the listed building provides some general context for rural character surrounding the settlement but makes no contribution to the appreciation or understanding of the key elements of their significance.

Effects of the Proposed Development

- 8.10.32. The Proposed Development will be constructed to the north, east and west of the village but will not impact on the key elements of the significance of the assets within Bishopton village. This significance is primarily defined through an appreciation of their historic and architectural interest which is best experienced in close proximity. The village centre provides this proximity whilst also adding the significance of the constituent elements through the historic relationship between the listed buildings and the sympathetic architectural style of the more modern additions.
- 8.10.33. The Proposed Development may be visible from the asset group, however, that visibility will not result in a material alteration of the key elements of significance, nor of how those elements are appreciated. It will not intrude on any key views and it will not interrupt any understanding of the relationship between the listed buildings.
- 8.10.34. The Proposed Development will lead to a Negligible magnitude of change on the asset which is of Medium heritage significance resulting in a **Negligible Effect**, which is not significant for the purposes of EIA.

Bishopton Conservation Area

Description of asset

- 8.10.35. The historic character of the conservation area is immediately appreciable when entering the settlement along one of the three primary roads. Along The Green, coming from the west, the tree-lined roads give way to red-brick structures beginning with a head-height boundary wall on the southern side of the road which draws the eye along its course to the first historic building, a non-designated two storey house named 'Bishopton House'.
- 8.10.36. From this point, the linear character of the settlement becomes apparent, although only the western end as the rising topography and slight curve in the road retains a degree of screening from here to the rest of the village. The Green is lined with historic buildings on both sides which are separated from the road by small areas of grass, interspersed with mature trees.
- 8.10.37. Moving to the east through the settlement centre, a small number of more modern buildings are present although are not overly noticeable as the general architectural design and material choices are similar to the older structures as is the green space and interspersed mature vegetation between the road and buildings.
- 8.10.38. The character of the village remains essentially unaltered throughout with the continuity of materials and treatment of open space allowing the more modern additions to blend into the more historic character. The most significant, visible change is at the junction between Church View and High Street where the road forks at the western edge of the Church of St Peter.
- 8.10.39. Church View continues in a north-easterly direction where the character is distinct from the main settlement centre as the grass verges bounding each side of the road are no longer present with a greater proportion of modern buildings which do not follow the general character and appearance of the rest of the settlement.
- 8.10.40. Beyond the settlement edge, and the limits of the conservation area, Church View continues to the west in the form of a narrow lane lined on either side by well-established hedgerows.
- 8.10.41. At the fork to the west of the Church of St Peter, High Street continues along a south-easterly course and continues to exhibit the primary character and appearance visible in the centre of the settlement almost to the edge of the settlement.
- 8.10.42. Beyond the limits of the modern village, the conservation area continues to encompass the scheduled motte and bailey which sits adjacent to Bishopton Beck running in a broadly north to south alignment parallel to High Street and the junction with Redmarshall Lane. Views looking north-west from that junction allow the monument to be appreciated in its historic context as the principal element of administration for the

medieval landscape at the same time as understanding the longevity of occupation within Bishopton.

Description of setting

- 8.10.43. The setting of the conservation area is defined by the identified key views of the conservation area including those noted within the appraisal document, through the assessment made within ES Appendix 8.2 Historic Environment Settings Assessment (Document Reference 6.4.8.2) and following consultation with Historic England.
- 8.10.44. These comprise:
- views looking east along The Green;
 - the view of St Peter's Church from the south along High Street;
 - the view of the Scheduled Motte and Bailey Castle 400m south east of Bishopton from the southern limit of the settlement along High Street;
 - the view towards the settlement from the south while moving along High Street from Redmarshall Lane;
 - the view across the rural landscape towards the Scheduled Motte and Bailey Castle 400m south east of Bishopton from Church View/Mill Lane; and
 - the view along the public footpath from Old Stillington when moving south towards Bishopton.
- 8.10.45. The wider setting of conservation area, beyond these identified views, comprises the generally rural landscape present across the Order Limits and 2 km Study Area as a whole. This landscape has retained that rural character since the medieval period at least, although was significantly altered in the late 18th and early 19th centuries through enclosure.

Significance

- 8.10.46. The significance of the asset is derived from the conformity of architectural style and construction materials of the constituent elements which makes a positive contribution to the character and appearance of the conservation area.
- 8.10.47. This character and appearance is appreciable immediately upon entering the conservation area, particularly from the south along High Street and the west along The Green where historic buildings and the grass verges lining the road are present and continue almost entirely throughout the settlement.
- 8.10.48. The exception being when entering the settlement along Church View where the principal character and appearance does not extend to the limits of the village, rather a more modern character is present until the junction with High Street. This section of the conservation area does not make as great a contribution to its significance as the rest of the settlement which generally retains a high quality of historic character and uniform appearance.

Contribution of setting to significance

- 8.10.49. The setting of the conservation area makes a positive contribution to its significance through the key view from Church View/Mill Lane looking to the south-west towards the motte and bailey where the appreciation of the longevity of the settlement is best understood. Here, both the modern and historic elements of the settlement are visible in the same view with the rural landscape in between.
- 8.10.50. A similar appreciation of that longevity is manifest through another identified key view when moving along High Street from Redmarshall Lane with the motte and bailey present on the western side and the limits of the modern settlement within the same view when looking to the north-west.
- 8.10.51. The remainder of the surrounding landscape while rural, does not make any great contribution to the character and appearance of the conservation area.

Effects of the Proposed Development

- 8.10.52. The Proposed Development will be constructed to the north, east and south-west of the conservation area but will not be visible within any of the key views identified by the conservation area appraisal or in ES Appendix 8.2 Historic Environment Settings Assessment (Document Reference 6.4.8.2).
- 8.10.53. The integrity of the conservation area and its character and appearance will be unaffected by the Proposed Development. This integrity and relationship is best appreciated within the limits of the settlement where the afforded proximity allows the architectural interest of the constituent buildings to be viewed and experienced in conjunction with the defined grass verges and mature vegetation.
- 8.10.54. Where the Proposed Development will be noticeable is in two key locations:
- when moving along Church View/Mill Lane to the west, entering the limits of the settlement; and
 - when walking along the public footpath from Old Stillington south into Bishopton.
- 8.10.55. At Church View/Mill Lane as solar PV panels will be constructed approximately 60m behind the existing hedgerows to the north, there will be very limited visibility, if any, of the solar PV panels. The Proposed Development will not only be located at distance from the boundary with the road, but will also reinforce and enhance any gaps in the hedgerows.
- 8.10.56. This section of the conservation area does not contribute as much to the significance of the asset group as it is much less uniform in its character and appearance to the rest of the settlement and is primarily defined by more modern structures. In this respect, while noticeable, the change in landscape format within this view will lead to a limited alteration to the overall significance of the asset group. The primary constituent elements of its significance will remain unaffected which includes the important view

from this road towards the scheduled motte and bailey as the panel areas will be behind, and this not visible, when experiencing this view.

- 8.10.57. To the north of Bishopton, where the footpath runs in a north to south alignment from Old Stillington, the solar PV panels will be constructed within a field to the north-west of Cobby Castle Lane, approximately 250 m north of the northern settlement limits of Bishopton. The footpath is included within the designs to be re-rerouted around the field containing the solar PV panels, however, the experience of moving from Old Stillington south to Bishopton in the context of the character and appearance of the Conservation Area, and its significance, will remain broadly the same.
- 8.10.58. The principal experience afforded by the footpath is when it enters the settlement limits and snakes through a number of existing buildings allowing for a sense of arrival into the settlements historic core, most obviously manifest through St Peter's Church. This accords with the overall experience of the character and appearance of the conservation area which is best appreciated within the settlement centre as set out in paragraph 8.10.47 with the wider landscape not making any contribution to its significance.
- 8.10.59. The Proposed Development will not affect the experience of the character and appearance of the conservation area along the footpath within the settlement boundaries. While the solar PV panels will be a noticeable addition to the landscape between the two settlements, this will not diminish or affect the character and appearance of the Bishopton Conservation Area, which is contained within the settlement core.
- 8.10.60. The Proposed Development will lead to a Negligible magnitude of change on the asset which is of Medium heritage significance resulting in a **Negligible Effect**, which is not significant for the purposes of EIA.

Scheduled monument motte and bailey castle 400 m south east of Bishopton

Description of asset

- 8.10.61. The asset comprises a conical shaped motte approximately 11.5 m in height and 55 m wide at its base and is surrounded by a 10 m to 15 m wide and up to 3.5 m deep moat. The bailey is located immediate to the north-west for the motte and measures approximately 80 m by 40 m and is bounded by a large ditch along its north-west side, a low bank on its north-east side and a large trivallate earthwork on its south-west side. The western boundary is formed by a double directed system which runs parallel to Bishopton Beck. The motte and bailey, as a whole, has a substantial moat on its eastern side measuring approximately 75 m wide and 1.5 m deep.
- 8.10.62. There is little known information about the castle with only a single reference in AD 1143 to the fortification of a castle by Roger de Conyers that may relate to the asset, however, it is not known whether there was an earlier castle located on the site. A

series of remains within the eastern part of the bailey have been attributed to a large rectangular building and a smaller building abutting the bailey's northern wall.

Description of setting

- 8.10.63. The setting of the asset is defined by its location in a position of key strategic importance at the south-eastern edge of the settlement at Bishopton, adjacent to Bishopton Beck which affords it clear views across the surrounding landscape in almost all directions.
- 8.10.64. The landscape around the asset has remained generally rural in character since the medieval period, albeit with some identifiable alterations mainly located within the settlement centres and from the construction of some new, modern infrastructure.

Significance

- 8.10.65. The significance of the asset is primarily derived from its archaeological interest through the information excavation could yield in relation to its construction, occupation and abandonment. This archaeological interest is elevated as there is little other evidence from documentary sources. This information gained from any excavations would contribute to regional, and national, research into the administration of the north-east of England during the medieval period.
- 8.10.66. The asset draws significance from its historic interest as a visible, and prominent, remaining element of the medieval landscape. In particular, the asset attests to the power and prowess of its former inhabitants and to the associated village of Bishopton. While remaining form of the asset the most obvious element of this historic interest, this link between the asset and the adjacent village is key in the appreciation of its administrative role.

Contribution of setting to significance

- 8.10.67. The asset draws significance from its setting primarily through its strategic location adjacent to Bishopton Beck and from its historic and spatial relationship with the settlement at Bishopton. This relationship is key in understanding and appreciating the asset and its historic interest as it puts into context the decisions made to situate the asset in that location, and also informs our understanding of why the settlement at Bishopton developed throughout the medieval period and into the post-medieval period.
- 8.10.68. This relationship with the village and the strategic prominence the motte offers is of particular importance in understanding the historic interest of the motte and thus its significance. Power and influence were exerted over the surrounding landscape through the presence of the motte with those living in Bishopton likely to have felt that influence most keenly, with either positive or negative associations.
- 8.10.69. The surrounding landscape does make a contribution to the significance of the asset through an ability to appreciate and understand further the power and influence

asserted by the motte and its inhabitants over the wider area. The rural and agricultural land and the revenue driven from it were a primary source of wealth for any lord and that relationship is still appreciable, despite the great landscape changes undertaken in the late 18th and early 19th centuries through enclosure.

Effect of the Proposed Development

- 8.10.70. At PEIR, it was reported that the Proposed Development would change the way the relationship between the asset and the surrounding landscape is experienced in its western view brought about through the introduction of modern, industrial components and how that alters the understanding of the rural setting of the asset in relation to its historic interests as a symbol of power and administration.
- 8.10.71. This change in relationship, tempered by the significant landscape change that has occurred since the establishment of the motte and bailey, particularly through enclosure, was concluded to lead to a Low magnitude of change on the asset, which being of high significance, was therefore reported as a Moderate Adverse Effect, and significance for the purposes of EIA.
- 8.10.72. As part of the assessment process from PEIR to EIA, an additional site visit was undertaken alongside consultation with Historic England, after which the assessment made at PEIR has been re-evaluated.
- 8.10.73. The Proposed Development will introduce solar PV modules into the landscape round the asset with the closest PV panels located approximately 500 m west of the asset. All Panel Areas from the Proposed Development will be either screened by existing vegetation and/or buildings, not visible due to topography or located at a distance whereby they would not be considered to lie within the setting of the asset. The solar PV modules to the west, although located at a similar elevation to the monument and will not be visible from the asset.
- 8.10.74. The solar PV modules will not obstruct the any visual or spatial aspect of the strategic location of the asset or to its historic relationship with Bishopton Village, nor will they compete with the motte's prominence or alter the pattern of the surrounding landscape.
- 8.10.75. While there will necessarily be an alteration in the landscape around Bishopton which was controlled by the lords, this change is nether noticeable nor appreciable from the asset, or in conjunction with the asset.
- 8.10.76. The primary significance of the asset is defined by its archaeological interest which will be entirely unaffected by the Proposed Development as will the understanding and appreciation of the vast majority of its historic interest. Following the re-evaluation of the asset and the surrounding landscape, the understanding of how power was transferred to the lords through control of the land will similarly be neither lost, nor diminished.

- 8.10.77. The Proposed Development will lead to a Negligible magnitude of change on the asset which is of High heritage significance resulting in a **Negligible Effect**, which is not Significant for the purposes of EIA.

Essential mitigation

- 8.10.78. Indirect effects within and beyond the Order Limits are difficult to mitigate. The scale and size of the Proposed Development will mean that views will be afforded towards it from a number of points within the surrounding landscape.
- 8.10.79. Beyond the embedded design measures set out above, there are no mitigation measures which would likely prove effective in reducing any reported effect. Residual effects remain as reported.

Enhancement

- 8.10.80. The Proposed Development offers the opportunity for heritage benefits to the local community of Bishopton through the enhancement of knowledge, understanding and engagement with the First World War airfield which is located within the Order Limits.
- 8.10.81. There is at present limited information relating to the operation of the airfield and no physical remains are likely to be encountered given the airfield was only ever a grass landing area. However, with the conflict just beyond living memory, the airfield presents an opportunity to enhance the connection of the airfield to the settlement at Bishopton and to the community beyond.
- 8.10.82. Links could be made with the contemporary airfield outside Sadberge and to the wider network of airfields used by the 36th Squadron while interpretation boards, public art and providing better access to the airfield location are all potential measures which could be employed.
- 8.10.83. The specific measures should be formulated in consultation with the local community and interested local stakeholders along with representatives from the LPA(s).

8.11. Monitoring

- 8.11.1. For Cultural Heritage and Archaeology, monitoring is undertaken during any intrusive archaeological works carried out during the construction phase and are at the discretion of the Archaeological Curators. Provision will be made in any approved Written Scheme of Investigation to facilitate monitoring visits during fieldwork.
- 8.11.2. As effects arising on the heritage significance of an asset through a change in setting will not change over the operational lifespan of the Proposed Development, i.e. the effect is fixed, no monitoring is required.

8.12. Summary

- 8.12.1. Table 8-5 provides a summary of the identified impacts, mitigation and likely effects of the Proposed Development on Cultural Heritage and Archaeology. The table has been subdivided into effects for construction, operation and decommissioning.

Table 8-5 Cultural Heritage and Archaeology assessment summary

Impact	Embedded/Essential Mitigation and how secured	Receptor Sensitivity	Magnitude of impact	Significance of effect
Construction				
Bishopton Landing Ground	Any remains, albeit unlikely to be encountered, will be mitigated through preservation by record via a watching brief during construction secured as a requirement of the DCO and via the requirements set out in ES Appendix 8.5: Archaeological Management Strategy (Document Reference 6.4.8.5).	Medium	Low to None	Minor Adverse or None– Not Significant
Known archaeological remains of Medium heritage significance including an Iron Age settlement area west of Great Stainton,	Mitigation through preservation by design removing any below ground impact by using floating foundations leading to no effect.	Medium	None	None
Known archaeological remains of Low or Negligible heritage significance	Mitigation through preservation by record via a watching brief during construction secured through a condition and via the requirements set out in ES Appendix 8.5: Archaeological Management Strategy (Document Reference 6.4.8.5).	Low or Negligible	Low	Negligible – Not Significant
Anomalies of possible or probable archaeological origin identified during the geophysical survey of Medium heritage significance	Mitigation through preservation by design removing any below ground impact by using floating foundations leading to no effect	Medium	None	None
Anomalies of possible or probable archaeological origin identified during the geophysical survey of Low or Negligible heritage significance	Mitigation through preservation by record via a watching brief during construction secured through a condition and via the requirements set out in ES Appendix 8.5: Archaeological Management Strategy (Document Reference 6.4.8.5).	Low or Negligible	Low	Negligible – Not Significant
As yet unknown archaeological remains of Medium heritage significance	Mitigation through preservation by design removing any below ground impact by using floating foundations leading to no effect.	Medium	None	None
As yet unknown archaeological remains of Low or Negligible heritage significance	Mitigation through preservation by record via a watching brief during construction secured through a condition and via the requirements set out in ES Appendix 8.5: Archaeological Management Strategy (Document Reference 6.4.8.5).	Low or Negligible	Low	Negligible – Not Significant

Impact	Embedded/Essential Mitigation and how secured	Receptor Sensitivity	Magnitude of impact	Significance of effect
Operation				
Asset Group 3: Bishopton – a number of designated heritage assets located within the village of Bishopton	Positioning of solar PV panels as far from asset as possible to reduce any visual introduction into the asset's setting.	Medium	Negligible	Negligible – Not Significant
The Bishopton Conservation Area	Positioning of solar PV panels as far from asset as possible to reduce any visual introduction into the asset's setting.	Medium	Negligible	Negligible – Not Significant
Scheduled monument motte and bailey castle 400m south east of Bishopton	Location of solar PV panels outside of the views from the castle towards the wider landscape.	High	Negligible	Negligible – Not Significant
Decommissioning				
None identified, all effects will be during construction or operation.	N/A	N/A	N/A	N/A

References

- [1] Chartered Institute for Archaeologists, “Standards and Guidance for historic environment desk-based assessment,” 2020.
- [2] Historic England, “GPA 2 - Managing Significance in Decision-Taking in the Historic Environment,” 2015.
- [3] Historic England, “The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning Note 3,” 2017.
- [4] Historic England, “Statements of Heritage Significance: Historic England Advice Note 12,” 2019.
- [5] Department for Levelling Up, Housing and Communities, “Planning Practice Guidance: Historic Environment,” 2019.
- [6] Historic England , “GPA 4 - Enabling Development and Heritage Assets,” 2020.
- [7] Historic England , “Commercial renewable energy development and the historic environment: Historic England Advice Note 15,” 2021.
- [8] IEMA, “Principles of Cultural Heritage Impact Assessment in the UK,” 2021.
- [9] Historic England, “Managing Significance in Decision Taking in the historic Environment: Historic Environment Good Practice In Planning Advice Note 2,” 2015.