

**Tillbridge Solar Project
EN010142**

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8. Cultural Heritage

8.1 Introduction

- 8.1.1 This chapter presents the findings of assessment impacts and likely significant effects on Cultural Heritage during the construction, operational and decommissioning phases of the Tillbridge Solar Project (hereafter referred to as ‘the Scheme’). A full description of the Scheme is included in **Chapter 3: Scheme Description** of this Environmental Statement (ES) [EN010142/APP/6.1].
- 8.1.2 The cultural heritage resource which could experience impacts from the Scheme include:
- a. Designated heritage assets, including scheduled monuments, listed buildings, registered parks and gardens, and conservation areas;
 - b. Non-designated heritage assets, including archaeological remains and historic buildings;
 - c. Historic landscape character; and
 - d. Historic hedgerows.
- 8.1.3 This chapter is supported by the following appendices [EN010142/APP/6.2]:
- a. **Appendix 8-1: Cultural Heritage Legislation, Policy and Guidance;**
 - b. **Appendix 8-2: Cultural Heritage Desk Based Assessment (DBA);**
 - c. **Appendix 8-3: Cultural Heritage Gazetteers;**
 - d. **Appendix 8-4: Air Photo and LiDAR Mapping and Interpretation Report;**
 - e. **Appendix 8-5: Geophysical Survey Reports:**
 - i. **Appendix 8-5-1: Geophysical Survey Report – Principal Site;**
 - ii. **Appendix 8-5-2: Geophysical Survey Report – Cable Route Corridor;**
 - f. **Appendix 8-6: Archaeological Evaluation Overarching Executive Report:**
 - i. **Appendix 8-6-1: Archaeological Evaluation Report for Fields 1-8, 33, 35, 138-141;**
 - ii. **Appendix 8-6-2: Archaeological Evaluation Report for Fields 9, 10, 14 and 16-26;**
 - iii. **Appendix 8-6-3: Archaeological Evaluation Report for Fields 27–32, 36–41, 43–49, 52–54, 60, 68, 72–79, 89–90, 101–106 and 110;**
 - iv. **Appendix 8-6-4: Archaeological Evaluation Report for Fields 50–51 and 55–57;**

- v. **Appendix 8-6-5: Archaeological Evaluation Report for Fields 58–59, 61–62, 64–67, 83–85, 87 and 98;**
 - vi. **Appendix 8-6-6: Archaeological Evaluation Report for Fields 80-81, 93-97, 115-116, 125, 126 and 128;**
 - vii. **Appendix 8-6-7: Archaeological Evaluation Report for Fields 88, 99, 107 and 108;**
 - viii. **Appendix 8-6-8: Archaeological Evaluation Report for Fields 91-92, 113-114, 119-124;**
 - ix. **Appendix 8-6-9: Archaeological Evaluation Report for Fields 100 and 109;**
 - x. **Appendix 8-6-10: Archaeological Evaluation Report for Fields 111, 112, 117, 118, 131–134, 136 and 137;**
 - g. **Appendix 8-7: Geoarchaeology Borehole Survey and Deposit Modelling; and**
 - h. **Appendix 8-8: Heritage Field Numbers Comparison.**
- 8.1.4 This chapter is supported by the following figures [EN010142/APP/6.3]:
- a. **Figure 8-1: Designated Heritage Assets;**
 - b. **Figure 8-2: Designated Heritage Assets within 3km and 5km of the Principal Site;**
 - c. **Figure 8-3: Non-Designated Heritage Assets;**
 - d. **Figure 8-4: Archaeological Events;**
 - e. **Figure 8-5: Historic Landscape Characterisation;**
 - f. **Figure 8-6: Historic Important Hedgerows; and**
 - g. **Figure 8-7: Heritage Field Numbers & Sensitive Archaeology Sites.**
- 8.1.5 In addition, this chapter is supported by information contained within the following chapters of this ES [EN010142/APP/6.1]:
- a. **Chapter 9: Ecology and Nature Conservation;**
 - b. **Chapter 10: Water Environment;**
 - c. **Chapter 12: Landscape and Visual Amenity; and**
 - d. **Chapter 13: Noise and Vibration.**

8.2 Legislation and Planning Policy

Legislation, planning policy and guidance relating to cultural heritage relevant to the Scheme is set out in **Appendix 8-1** of this ES [EN010142/APP/6.2].

8.3 Assessment Assumptions and Limitations

- 8.3.1 The assessment presented in this ES chapter is based on information made available at the time of writing and drawn from the baseline presented in the Cultural Heritage DBA produced for the Scheme (**Appendix 8-2** of this ES [EN010142/APP/6.2]), as well as the Air Photo and LiDAR Mapping and Interpretation Report (**Appendix 8-4** of this ES [EN010142/APP/6.2]).

- 8.3.2 The assessment has been carried out against the broad principles in landscaping which is secured via the **Works Plans [EN010142/APP/2.3]** and the Landscape Masterplans (Appendix A of the **Framework Landscape and Ecology Management Plan [EN010142/APP/7.17]**).
- 8.3.3 It is assumed that data provided by third parties is accurate at the time of reporting including information supplied by the Historic Environment Records (HER) sources and the National Heritage List for England (NHLE).
- 8.3.4 Designated assets take precedence over non-designated assets where these are duplicated in the HER. Such non-designated assets have not been identified separately for the purposes of this chapter to avoid duplication of data and assessment.
- 8.3.5 The Cultural Heritage DBA (**Appendix 8-2** of this ES **[EN010142/APP/6.2]**) has also been informed by a programme of archaeological field evaluation undertaken to inform the understanding of the baseline conditions within the Order limits. This comprised geophysical survey of the Principal Site and targeted geophysical survey within the Cable Route Corridor, followed by trial trench evaluation of the Principal Site. Only two fields (Fields 16 and 127) could not be trial trenched due to access or crop constraints. During the geophysical survey of the Principal Site, only five fields (Fields 27, 30, 82, 93 and 120), totalling approximately 23ha were unavailable for survey due to overgrown crops or access constraints. Within the Cable Route Corridor, approximately 29.84ha of the 76.24ha selected were unable to be surveyed due to access constraints, crops, and water-logged ground conditions.
- 8.3.6 The absence of geophysical survey or trial trench evaluation in specific land parcels is not considered a limitation to the assessment; the impacts and additional mitigation requirements in these areas can be adequately understood based on the collated data presented in the DBA (**Appendix 8-2** of this ES **[EN010142/APP/6.2]**) and completed evaluation surveys for the Scheme (**Appendices 8-4 to 8-7** of this ES **[EN010142/APP/6.2]**).
- 8.3.7 As set out in **Chapter 4: Alternatives and Design Evolution** of this ES **[EN010142/APP/6.1]**, the Scheme has worked collaboratively with Gate Burton Energy Park, Cottam Solar Project, and West Burton Solar Project to minimise environmental impacts along the Cable Route Corridor by using a shared route, where practicable. As a result, a large amount of archaeological information has been collected along this corridor. To minimise disturbance to landowners through repeated access by multiple schemes, where relevant, the Applicant has collaborated with the other proposed developments to share data. However, where gaps in the survey data existed within the Cable Route Corridor, and where access was possible, the Applicant undertook geophysical surveys with the expectation that trial trenching of these areas will be undertaken post-consent.
- 8.3.8 The results of archaeological fieldwork undertaken by adjacent, overlapping solar schemes have been used to inform the assessment of archaeological potential within the Cable Route Corridor and impacts arising from the Scheme in this chapter. The reports for these investigations are referenced where applicable.

- 8.3.9 The assessment has been undertaken adopting the principles of the 'Rochdale Envelope' whereby the maximum (and where relevant, minimum) parameters for the Principal Site and Cable Route Corridor are applied on worst-case scenario to determine significance of effect, with the assumption that construction activities could take place anywhere within the Cable Route Corridor Order limits, and where the Works Plans allow for the Principal Site.
- 8.3.10 The Design Parameters, as set out in **Chapter 3: Scheme Description** of this ES [EN010142/APP/6.1], have been assessed for below ground archaeological remains, based on the maximum areas that will be disturbed. It is assumed that the majority of the Principal Site, with the exception of areas where no works are proposed, would be subject to below ground disturbance including poles driven or screwed into the ground for the installation of the Solar PV Panels, foundations for installation of the Battery Energy Storage Systems (BESS) compound, and trenches for cabling to connect the BESS station to the Power Conversion Units and Solar PV Arrays, as well as temporary construction compounds and access tracks.
- 8.3.11 Within the Cable Route Corridor and Principal Site, temporary construction compounds and access tracks will entail below ground disturbance.
- 8.3.12 Spoil material will be generated during construction such as levelling some areas within the Principal Site, cable trenches, temporary and permanent compounds, internal roads, BESS and substation compounds, and Solar Stations. During construction, the spoil will be stored temporarily within designated areas adjacent to the cable route and within the construction compounds. The spoil will be utilised to backfill the cable trenches, reinstate the temporary construction compounds and any temporary access roads. Any excess spoil will be utilised across the Scheme.
- 8.3.13 Trenchless and open cut crossings for the Scheme, shown on **Figure 3-11** of this ES [EN010142/APP/6.3], may impact upon historic hedgerows and archaeological remains or deposits and have been assessed on a worst-case scenario for effects. Open cut crossings will require a maximum trench width of 3.5m.
- 8.3.14 The drainage strategy set out within the Outline Drainage Strategy (**Appendix 10-4** of this ES [EN010142/APP/6.2]) has been considered within the assessment. In addition, culverts may be required, where new access tracks are proposed on the Principal Site.
- 8.3.15 Details on soil disturbance for the construction of temporary compounds and temporary access roads are not currently known.
- 8.3.16 Details of fencing and maintenance of Sensitive Archaeological Sites (SASs) are set out within the **Framework Landscape and Ecological Management Plan (LEMP)** [EN010142/APP/7.17].
- 8.3.17 Highway works set out within the **Streets, Rights of Way and Access Plans** [EN010142/APP/2.4] and draft DCO Schedules 4 to 8 [EN010142/APP/3.1] have been considered.
- 8.3.18 Ecological grassland areas (Biodiversity Zones) are proposed within the Principal Site as depicted on the Indicative Principal Site Layout Plan

(**Figure 3-1** of this ES [EN010142/APP/6.3]). This would entail site cultivation to a maximum depth of 50mm.

- 8.3.19 The following design parameters have been applied to assess worst-case scenario effects on heritage assets during the construction, operational and decommissioning phases of the Scheme:
- a. The solar PV panels will have a maximum height of 3.5m when at maximum tilt.
 - b. Solar PV panels will be mounted on galvanised steel poles driven into the ground or on concrete ballasts.
 - c. Two substations located within the Principal Site, each with a 400kV switchgear building (up to 15m in width, 43m in length and 10m in height), two 33kV switch room buildings (up to 20m in length by 5m in width by 6m in height), a control building (up to 25m in length by 18m in width by 7m in height), with four parking spaces each, on a concrete foundation of up to 1m in depth or employing a piling solution to a maximum depth of 12m. The total footprint of each substation will be up to 108m in width by 115m in length. The piling solution has been assessed as the worst-case scenario in this chapter.
 - d. A Solar Farm Control Centre will be up to 20m in length by 15m in width by 6m in height, on a concrete foundation up to 1m in depth or employing a piling solution to a maximum depth of 12m. The piling solution has been assessed as the worst-case scenario in this chapter.
 - e. An area for the storage of equipment during the operation of the Scheme will be a maximum of 12m in length, 2.5m in width by a maximum of 3m in height or equivalent shaded open storage area using a 3.2m high shade. Foundation slabs typically will be a concrete foundation slab with a levelling layer of thick sand, with a maximum depth of 1m.
 - f. Up to 140 co-located BESS stations and Solar Stations, with the latter each comprising an inverter, a transformer and switchgear. The maximum area for the co-located BESS station and Solar Station will be 48m in length by 30m in width and 4m in height.
 - i. Each Solar Station will be a maximum of 5.5m in length, 2.5m in width and 3m in height. These will be situated on foundation slabs with a maximum depth of 1m.
 - ii. Each BESS station will be a maximum of 12.5m in length, 3m in width and 4m in height. Either a concrete foundation slab base, up to 1m in depth, or a piling solution may be required, depending on the results of geotechnical surveys. If piling is required, this would be to a maximum depth of 12m. The piling solution has been assessed as the worst-case scenario in this chapter.
 - g. On-site cabling between the PV panels, inverters within the Solar Stations, and BESS will be buried underground in trenches. Dimensions of the trenches will vary but the assumption is they will be a maximum of 4m in width and 1.2m in depth. Where the DC cables from the panel strings converge to connect to the inverter within the Solar Station, the maximum width of the trench will be 6m wide to accommodate up to 20 pairs of cables connecting the inverter within the Solar Station.

- h. On-site underground cabling between transformers and on-site substations will be up to 1m wide and 1.7m deep for general installation.
- i. Five temporary compounds will be placed across the Principal Site and six for the Cable Route Corridor, plus additional compounds for trenchless crossings.
- j. A security fence will enclose the operational areas of the Principal Site. This will be a deer control fence, up to a maximum of 2.5m in height. Pole mounted internal facing closed CCTV systems up to a maximum of 3m high will be deployed around the perimeter of the operational areas of the Principal Site.
- k. A 18.5km long Cable Route Corridor will be required to connect the Principal Site to Cottam Substation. The construction width is up to 40m maximum, with trench depths up to a maximum of 2m with a width of 3.5m, with one trench required for each of the circuits with one single circuit comprising 3 cables laid in trefoil formation.
- l. A further 400kV underground cable circuit approximately 8km long will be required within the Principal Site to interconnect the two 400kV/33kV substations. The cable trench is anticipated to be up to 3.5m wide and a maximum of 2m deep.
- m. Trenchless crossings will be a maximum of 5m below watercourses and utilities. Trenchless crossings for the former Cottam Power Station railway line, and the East Midlands Railway, will be a minimum of 10m in depth. Trenchless crossing for the River Till and River Trent will be up to a maximum of 25m in depth. Horizontal Directional Drilling (HDD) crossing platforms will require a granular platform 60m by 40m footprint and 1.0m deep for both drilling and receiving.
- n. For minor roads and tracks, hedgerows and field drains, an open cut method will be applied. A typical trench depth of up to a maximum of 2m and trench width of up to a maximum 3.5m is required.
- o. A trench will be dug to provide drainage across the Cable Route Corridor during construction. This ditch will be a maximum of 2.0m in width and a maximum depth of 1.5m.
- p. Jointing bays will be required every 800m to 1km apart to join sections of cable together. The dimensions of the jointing pit would be up to 21m in length by 3m in width by 2.5m in depth. The proposed cable jointing area shall be formed using four precast concrete units approximately 2m in length and 3m wide for ease of construction. The minimum jointing area excavation required shall be a minimum of 8m long by 3m wide by 2.5m in depth. A link and communications box pit of up to a maximum of 5m in length by a maximum of 5.5m in width and a depth of 1.3m will be required next to every jointing bay.
- q. Access tracks will be compacted stone tracks up to 4m wide with 1:2 gradient slopes on either side. The four primary access points for the Principal Site will be wider, up to a maximum of 6m to facilitate two-way Heavy Goods Vehicles (HGVs) traffic and passing bays will be provided along access roads, where required, to ensure traffic does not impact the local highway network.

- 8.3.20 Assessment of impacts on the setting of heritage assets has been based on the **Framework LEMP [EN010142/APP/7.17]**. The setting assessment assumes that all structures would be at the maximum heights as detailed by the Design Parameters set out within Section 3.3 of **Chapter 3: Scheme Description** of this ES **[EN010142/APP/6.1]**. The only fixed locations of infrastructure are the access points, two substations and control centre (office and storage facilities) as shown on the Indicative Principal Site Layout Plan (**Figure 3-1 of this ES [EN010142/APP/6.3]**) which includes indicative locations for other infrastructure for illustration purposes. Where the location of other infrastructure is not known, the assessment assumes it will be located at the field edges nearest to heritage assets or otherwise in the worst-case location within a field as based upon professional judgment, as well as an assumption of the least sympathetic colour for above ground infrastructure. Where relevant, these assumptions are also outlined in the assessment of likely impacts and effects in Section 8.9 of this chapter in relation to specific assets.
- 8.3.21 Some areas within the Principal Site have been excluded from the Scheme, outside the Order limits, which have taken account of historic farmsteads or woodlands.
- 8.3.22 Sensitive Archaeological Sites (SASs) have been identified within the Principal Site based on the collated baseline data and the archaeological evaluation results from the geophysical surveys and trial trenching. Their locations are illustrated on **Figure 3-1: Indicative Principal Site Layout Plan** of this ES **[EN010142/APP/6.3]**. These areas will require fencing and maintenance during construction and for the lifetime of the Scheme.
- 8.3.23 Field numbers used throughout this chapter are those applied by Magnitude Surveys and Wessex Archaeology for the 2023 Scheme fieldwork reporting, based on landownership. These have been applied in this chapter and in the heritage appendices to ensure consistency for cross-referencing with the fieldwork reports in Appendices accompanying this chapter, as identified in **Figure 8-7: Heritage Field Numbers** of this ES **[EN010142/APP/6.3]**. These are different to those included on the Indicative Principal Site Layout Plan (**Figure 3-1 of this ES [EN010142/APP/6.3]**). A table comparing the heritage and Indicative Principal Site Layout Plan field numbers is presented within **Appendix 8-8** of this ES **[EN010142/APP/6.2]**.
- 8.3.24 Date references throughout this chapter are predominantly based on BC or AD, calibrated where relevant. Occasionally the abbreviation 'Kya' (thousands of years ago) has been used to reflect consistency with the 2023 Wessex Archaeology reports (**Appendices 8-6 and 8-7** of this ES **[EN010142/APP/6.2]**) and BP to represent dates 'before present'.
- 8.3.25 Information provided by the Lincolnshire and Nottinghamshire Historic Environment Records (HER) can be limited as it depends mostly on development-led opportunities for research, fieldwork and discovery. Where nothing of historic interest is shown in a particular area, this can be down to a lack of research or investigation, rather than no actual assets present. Two formal search requests were made to the Lincolnshire and Nottinghamshire HERs to inform the research for the Cultural Heritage DBA (**Appendix 8-4** of this ES **[EN010142/APP/6.2]**) and this chapter, in 2022 and 2023, to ensure

the most up to date datasets have been applied. This is supplemented by the Air Photo and LiDAR Mapping and Interpretation Report in **Appendix 8-4** of this ES [EN010142/APP/6.2].

- 8.3.26 Not all of the Scheme or study areas has been accessible during site visits to inform this assessment, with the majority undertaken from publicly accessible locations only. Professional judgement has been used to assess settings and views where it has not been possible to ascertain levels of visibility from gardens and properties through the site visits. Such judgements have been aided by Google aerial imagery and fieldwork observations from the surrounding area.

8.4 Assessment Methodology

Study Areas

- 8.4.1 The study areas for cultural heritage have been applied from the Order limits of the Principal Site and the Cable Route Corridor. These have been applied to capture the historic environment baseline by reference to relevant guidance, professional judgment and taking account of topography and the nature of construction and ground works. This approach ensures the assessment is proportionate in accordance with the requirements of the National Policy Statement (NPS) EN-1 paragraph 5.9.10 (Ref. 8-1) and NPS EN-3 paragraph 2.10.115 (Ref. 8-2) and in line with the National Planning Policy Framework (NPPF) paragraph 200 (Ref. 8-3).
- 8.4.2 Taking into account proportionality, the study areas have been applied to address stakeholder comments made in the **EIA Scoping Opinion** (**Appendix 1-2** of this ES [EN010142/APP/6.2]) and statutory consultation responses (refer to **Table 8-5** and **Table 8-6**).

Designated Heritage Assets Study Area

- 8.4.3 A 3km study area for designated heritage assets has been set for both the Principal Site and Cable Route Corridor.
- 8.4.4 A wider buffer up to 5km around the Principal Site has been applied to capture those designated assets of the highest value, that is, scheduled monuments and Grade I and II* listed buildings, taking account of their settings and historical relationships that may be impacted by the Scheme. The 5km study area also takes account of the Zone of Theoretical Visibility (ZTV), produced to inform the Landscape and Visual Impact Assessment in **Chapter 12: Landscape and Visual Amenity** of this ES [EN010142/APP/6.1], to provide an indication of potential visibility of the Scheme in views to or from high value designated assets that may be affected, shown on **Figure 8-2** of this ES [EN010142/APP/6.3].
- 8.4.5 This assessment takes into consideration the fact that setting goes beyond visual relationships but remains proportionate, in accordance with the requirements of the NPPF (Ref. 8-3) and NPS EN-1 (Ref. 8-1).
- 8.4.6 Several viewpoints have been prepared as part of the Landscape and Visual Impact Assessment for the ES, alongside specific viewpoints from agreed heritage assets and visualisations referenced in this chapter where they

have informed the heritage assessment (refer to **Chapter 12: Landscape and Visual Amenity [EN010142/APP/6.1], Appendix 12-4 [EN010142/APP/6.2]** and **Figures 12-12 to 12-14 [EN010142/APP/6.3]** of this ES).

Non-designated Heritage Assets Study Area

- 8.4.7 For non-designated heritage assets, including locations of archaeological remains and findspots, a 1km study area has been applied to both the Principal Site and Cable Route Corridor.
- 8.4.8 Additional archaeological sites identified outside of the 1km study area are referenced where they contextualise and inform the assessment of known and unknown archaeology within the Order limits.

Sources of Information

Desktop Survey

- 8.4.9 Sources of information consulted for this chapter include, but are not limited to:
- a. National Heritage List for England (NHLE);
 - b. Lincolnshire Historic Environment Record (LHER) and Historic Landscape Characterisation (HLC);
 - c. Nottinghamshire Historic Environment Record (NHER) and HLC;
 - d. Results of the Air Photo and LiDAR Mapping and Interpretation Report (**Appendix 8-4** of this ES **[EN010142/APP/6.2]**);
 - e. The results of geophysical survey, archaeological trial trench evaluation and geoarchaeological borehole assessment undertaken for the Scheme (**Appendices 8-5 to 8-7** of this ES **[EN010142/APP/6.2]**);
 - f. The results of previous archaeological surveys and investigations undertaken within the 1km study area, particularly those within the Order limits undertaken by the adjacent proposed solar developments of Cottam Solar Project, Gate Burton Energy Park and West Burton Solar Project;
 - g. Various online resources including the British Geological Survey (BGS) Geology of Britain Viewer and the local planning portals for the Local Plan and other planning information;
 - h. Published and unpublished literature in relation to the historical and archaeological record for the Scheme and study areas (including a detailed review of reports for previous fieldwork carried out in proximity to the Scheme);
 - i. Online bibliographic resources such as the Archaeological Data Service (ADS);
 - j. Existing geotechnical data, where available;
 - k. Documentary, cartographic and other resources available in the Lincolnshire Archives; and

- I. Local planning policy documents and character appraisals prepared by West Lindsey and Bassetlaw District Councils
- 8.4.10 The heritage assets discussed within this chapter are identified by their unique identification number assigned by the NHLE for designated assets and by the HER for non-designated heritage assets. The HER numbers are prefixed 'MLI' for Lincolnshire and 'MNT' for Nottinghamshire. All assets are identified within the text using their unique identifier and can be cross-referenced to the gazetteers in **Appendix 8-3** of this ES **[EN010142/APP/6.2]**.
- 8.4.11 The archaeological surveys and investigations undertaken for both the Scheme and adjacent proposed solar projects have identified previously unknown buried archaeological remains and remains associated with known heritage assets recorded by the HERs. Where appropriate, these archaeological remains have been given unique identification numbers prefixed by 'AEC' (e.g. **[AEC001]**).

Site Walkovers

- 8.4.12 Heritage site walkovers were undertaken in February and August 2023, on targeted publicly accessible areas within the Order limits to identify known and previously unknown heritage assets. The site walkovers also assessed the settings of heritage assets within the wider study areas, taking into account the importance of views in the appreciation of heritage assets and how these changed as the viewer moved through the landscape.

Archaeological Fieldwork Surveys

- 8.4.13 The Cultural Heritage Baseline Assessment was informed by a programme of non-intrusive survey and intrusive archaeological evaluation. This included:
- a. Geophysical survey (detailed gradiometry) of the Principal Site was undertaken between September 2022 and March 2023 across 138 fields comprising a 1325.3ha area of land. The results of the geophysical survey are presented in **Appendix 8-5-1** of this ES **[EN010142/APP/6.2]**;
 - b. Geophysical survey of the Cable Route Corridor followed a gap analysis of land within the Order limits which identified approximately 76.24ha of land which had not previously been subject to geophysical survey for the adjacent Cottam Solar Project. 46.4ha was available for survey prior to submission of the DCO application, with the results provided in **Appendix 8-5-2** of this ES **[EN010142/APP/6.2]**;
 - c. Archaeological trial trench evaluation of the Principal Site was undertaken between April and September 2023. The evaluation comprised 2628 trial trenches, representing a 2% sample of the then 1,400ha area (which has been subsequently reduced to 1,350ha). The results of the trial trench evaluation are presented in **Appendix 8-6** of this ES **[EN010142/APP/6.2]**; and
 - d. Geoarchaeological Borehole Survey and Deposit Modelling was undertaken in August 2023. A total of 52 boreholes were undertaken

across the Order limits targeting areas of palaeoenvironmental potential. This comprised 35 boreholes within the Principal Site, eight boreholes within the Cable Route Corridor and an additional nine boreholes within the medieval moated enclosure [MLI50291] within Field 124 of the Principal Site. The results can be found in **Appendix 8-7** of this ES [EN010142/APP/6.2].

Impact Assessment Methodology

Assessment Criteria

- 8.4.14 This environmental assessment has been undertaken following relevant key guidance, as set out in **Appendix 8-1** of this ES [EN010142/APP/6.2].
- 8.4.15 This section sets out the approach to the assessment of the potential impacts of the Scheme on designated and non-designated heritage assets, taking into account the methodology set out in **Chapter 5: EIA Methodology** of this ES [EN010142/APP/6.1]. The objective of this assessment is to identify any effects upon cultural heritage assets that are likely to arise from construction, operation and decommissioning of the Scheme.
- 8.4.16 The principles of the impact methodology rest upon independently evaluating the value of the cultural heritage resources and the magnitude of impact upon that value. By combining the value of the cultural heritage resource with the predicted magnitude of impact, the significance of the effect can be determined. The effect significance can be beneficial, adverse, or neutral.
- 8.4.17 The cultural heritage assessment includes an assessment of the heritage value of potentially affected assets, in line with NPS EN-1 (Ref. 8-1). This requires the provision of information sufficient to enable adequate understanding of the potential impacts on the value of any heritage asset, which is consistent with the requirements of the NPPF (Ref. 8-3) and is proportionate to the importance of the asset. Both the NPS and NPPF also require this assessment to take account of changes to both the physical asset and its setting.
- 8.4.18 Both NPS EN-1 and the NPPF set out criteria which should be considered when assessing the value of cultural heritage assets, which include archaeological, architectural, artistic and historic interest. These criteria have been used in the assessment of value for each affected heritage asset in conjunction with applying professional judgement.
- 8.4.19 Both documents include provisions relating to the assessment and management of impacts affecting the value of heritage assets with harm. There is a requirement to determine whether the level of harm amounts to 'substantial harm' or 'less than substantial harm'. NPS EN-1 and NPPF make it clear that substantial harm to, or loss of, a Grade II designated asset should be exceptional and that to a Grade II* or I asset, or scheduled monument, should be 'wholly exceptional'.
- 8.4.20 There is no direct correlation between the significance of effects identified through the EIA process and the level of harm caused to heritage significance. The assessment of harm arising from the impact of the Scheme

will be determined using professional judgement and with regard to the following considerations:

- a. A major (significant) effect on a heritage asset would more often be the basis by which to determine that the level of harm to the value of the asset would be substantial. However, substantial harm is considered to be a high test and a case-by-case assessment should be made.
- b. A moderate (significant) effect is unlikely to meet the test of substantial harm and would therefore be the basis to determine that the level of harm to the value of the asset would be less than substantial.
- c. A minor or negligible (not significant) effect would still amount to less than substantial harm.
- d. A neutral effect would be classified as having no harm.

8.4.21 A formal assessment of harm has been undertaken as part of the DCO application and is provided in the Heritage Harm Statement, included as Appendix C of the **Planning Statement [EN010142/APP/7.2]**.

Assessment of Value

8.4.22 For the purpose of this assessment the significance of a heritage asset, as defined by Annex 2 of the NPPF (Ref. 8-3), is referred to as its 'value'.

8.4.23 The value of a heritage asset is derived from its heritage interest which may be archaeological, architectural, artistic or historic (NPPF Annex 2, Glossary) (Ref. 8-3). The value of a place is defined by the sum of its heritage interests.

8.4.24 Advice Note 12, published by Historic England (Ref. 8-4), offers an interpretation of the various heritage interests that an asset can possess, based on the terms provided in the NPPF Glossary (Ref. 8-3), as follows:

- a. Archaeological Interest – there will be archaeological interest in a heritage asset if it holds, or has the potential to hold, evidence of past human activity worthy of expert investigation at some point;
- b. Architectural and Artistic Interest – these are interests in the design or general aesthetics of a place. They can arise from conscious design or fortuitously from the way the heritage asset has evolved. More specifically, architectural interest is an interest in the art or science of the design, construction, craftsmanship and decoration of buildings and structures of all types. Artistic interest is an interest in other human creative skills, such as sculpture; and
- c. Historic Interest – an interest in past lives and events (including pre-historic). Heritage assets can illustrate or be associated with them. Heritage assets with historic interest not only provide a material record of our nation's history but can also provide meaning for communities derived from their collective experience of a place and can symbolise wider values such as faith and cultural identity.

8.4.25 Following assessment of the heritage interests, heritage assets are assigned a level of heritage value in accordance with the criteria set out in **Table 8-1**. These criteria have been developed using available guidance, experience on

comparable schemes and professional judgement, taking into account regional variations and individual qualities where applicable.

Table 8-1: Criteria for Determining the Value of Heritage Assets

Asset Value	Criteria
High	<ul style="list-style-type: none"> • World Heritage Sites • Schedule Monuments • Grade I and II* listed buildings • Grade I and II* registered historic parks and gardens • Registered battlefields • Non-designated archaeological assets of schedulable quality of national or international importance • Conservation Areas of demonstrably high value • Well preserved historic landscape character areas, exhibiting considerable coherence, time-depth of other critical factors
Medium	<ul style="list-style-type: none"> • Grade II listed buildings • Grade II listed registered historic parks and gardens • Conservation Areas • Locally listed buildings included within a Conservation Area • Non-designated heritage assets of a regional resource value • Averagely preserved historic landscape character areas exhibiting reasonable coherence, time-depth or other critical factors
Low	<ul style="list-style-type: none"> • Non-designated heritage assets that can be shown to have demonstrable local importance • Locally listed buildings • Assets whose values are too compromised by poor preservation or survival of contextual associations to justify inclusion into a higher grade • Historic landscape character areas whose value is limited by poor preservation and/or poor survival of contextual associations
Very Low	<ul style="list-style-type: none"> • Non-designated heritage assets whose heritage values are compromised by poor preservation or damaged so that too little remains to justify inclusion into a higher grade • Assets identified on national or regional databases, but which have no archaeological, architectural, artistic or historic value • Landscape with no or little significant historical merit

Magnitude of Impact

- 8.4.26 Having identified the value of the heritage asset, the next stage in the assessment is to identify the level and degree of impact upon an asset arising from the Scheme. Impacts upon heritage assets can arise during the construction, operation, and decommissioning phases of the Scheme; they can be positive or negative; direct or indirect; long term or temporary; and/or cumulative. Impacts can affect the physical fabric of the asset or their setting. Direct physical impacts are considered permanent and result in the total, or partial, loss of a heritage asset; these impacts are not reversible. Impacts arising from changes to setting are split between those resulting from construction activities which can be temporary and those which are long-term, lasting for the duration of the operational Scheme but reversible upon decommissioning.
- 8.4.27 The level and degree of impact (impact rating) will be assigned with reference to a five-point scale as set out in **Table 8-2**. The criteria presented in **Table 8-2** have been developed using available guidance, experience on comparable schemes and professional judgement. The assessment of the level and degree of impact will be made in consideration of any Scheme design mitigation (embedded mitigation).
- 8.4.28 If no impact is likely, it is reported for the purposes of this assessment as ‘no change’ with a resulting ‘neutral effect’.

Table 8-2: Criteria for Determining the Magnitude of Impact

Magnitude	Criteria
High	Change such that the value of the heritage asset is totally altered or destroyed through physical impact or comprehensive alteration to its setting affecting its value, seriously impeding the ability to understand and appreciate the asset.
Medium	Change such that the heritage value of the asset is affected due to alterations to its physical form or noticeable change to its setting through alterations resulting in erosion in the ability to understand and appreciate the asset.
Low	Change such that the heritage value of the asset is slightly affected through physical alteration to its physical form or slight change to its setting affecting the ability to understand and appreciate the asset.
Very Low	Changes that barely affect the value of the asset or its setting, resulting in no real change in the ability to understand and appreciate the asset.
No Change	No alteration or change to the value of the asset or its setting.

Significance of Impact

- 8.4.29 The assessment to classify the effect, having taken into account any embedded mitigation, is determined applying the matrix in **Table 8-3**.

8.4.30 The overall effect on the asset, caused by the impact, is determined by consideration of the value of the asset (**Table 8-1**) and the magnitude of the impact (**Table 8-2**), with a level of professional judgement included in the determination. This is identified by the degree of change that would be experienced by the asset and its setting if the Scheme were to be completed as compared with a 'do nothing' situation. Effects can be neutral, adverse, or beneficial.

8.4.31 Residual major or moderate effects are deemed to be 'significant' for the purposes of the EIA Regulations, in accordance with standard EIA practice. Minor and negligible effects are deemed to be 'not significant' and may not be important or relevant to the decision-making process, although they may be matters of local concern.

Table 8-3: Matrix Used to Determine the Significance of Potential Effects

Value of Heritage Asset	Magnitude of Potential Impact				
	High	Medium	Low	Very Low	No Change
High	Major	Major	Moderate	Minor	Neutral
Medium	Major	Moderate	Minor	Negligible	Neutral
Low	Moderate	Minor	Negligible	Negligible	Neutral
Very Low	Minor	Negligible	Negligible	Negligible	Neutral

8.4.32 The baseline assessment has been undertaken in accordance with guidance set out by the Chartered Institute for Archaeologists (CIfA) and Historic England, in particular the Standard and Guidance for Historic Environment Desk-Based Assessment (Ref. 8-5) and the Code of Conduct: Professional Ethics in Archaeology (Ref. 8-6).

8.4.33 Principles of Cultural Heritage Impact Assessment in the UK (Ref. 8-7) is a guide to good practice in cultural heritage impact assessment published jointly by the Institute of Environmental Management and Assessment (IEMA), the Institute of Historic Building Conservation (IHBC), and the CIfA. The document provides guidance on understanding cultural heritage assets and evaluating the consequences of change and has been considered when undertaking the assessment.

Buried Archaeological Potential

8.4.34 Buried archaeological evidence is often an unknown quantity which can be difficult to fully identify. The likelihood of the presence of unknown archaeological assets is assessed on known baseline evidence, but the physical nature and extent of any archaeological resource surviving within the Order limits cannot be fully confirmed without investigation.

8.4.35 The archaeological potential within the Order limits is identified in this assessment using professional judgement and knowledge, applying the information available in the baseline data and the findings of the 2023 archaeological fieldwork for the Scheme. A site’s baseline potential is compared to the level of existing impact upon it, from modern and historic developments. The potential for surviving archaeological evidence of past activity within the Principal Site and Cable Route Corridor is expressed according to the criteria set out in **Table 8-4**.

Table 8-4: Criteria for Potential Archaeological Survival

Potential Archaeological Survival	Criteria
High	The available evidence suggests a high likelihood for past activity within the Order limits and a strong potential for archaeological evidence to survive intact or reasonably intact.
Medium	The available evidence suggests a reasonable likelihood for past activity within the Order Limits and consequently there is a potential that archaeological evidence could survive.
Low	The available evidence suggests archaeological evidence of activity is unlikely to survive within the Order Limits, although some minor land-use may have occurred.
Uncertain	Insufficient information to assess.

8.5 Stakeholder Engagement

8.5.1 Preliminary consultation was carried out with statutory heritage stakeholders in November 2022 to discuss study areas and the heritage scope for the Scheme, as set out in the Cultural Heritage DBA (**Appendix 8-2** of this ES [EN010142/APP/6.2]). Further consultation has been undertaken to inform and agree the archaeological fieldwork and detailed assessment for the ES assessment in this chapter.

8.5.2 A request for an EIA Scoping Opinion, **Appendix 1-2: EIA Scoping Opinion** of this ES [EN010142/APP/6.2], was sought from the Secretary of State through the Planning Inspectorate in 2022 as part of the EIA Scoping Process. A summary of consultation responses relating to cultural heritage is presented in **Table 8-5**.

8.5.3 Further consultation in response to formal pre-application engagement was undertaken through the Preliminary Environmental Information Report (PEI Report). **Table 8-6** outlines the responses received through statutory consultation between May and July 2023 relating to cultural heritage and how these have been addressed in this ES. Responses have been grouped thematically where relevant, but all relevant consultees are listed. **Table 8-6** also summarises additional comments received from targeted consultation completed in December 2023 – January 2024. Full details of the consultation

responses received are provided within the Consultation Report **[EN010142/APP/5.1]**.

- 8.5.4 Additional consultation was undertaken directly with the heritage statutory stakeholders as part of on-going technical engagement. This was undertaken throughout the project evolution to inform the archaeological approach and fieldwork, as well as for design considerations for impacts on sensitive high status heritage assets. A summary of matters arising regarding the scope, method and mitigation are set out in **Table 8-7**.

Table 8-5: Scoping Opinion Responses

Consultee	Summary of main matter raised	How has the matter been addressed?	Location of response in the chapter
<p>Planning Inspectorate</p>	<p>The Scoping Report states that, measuring from the scheme boundary, the study area is 3km and 1km for designated and non-designated assets respectively. No justification however is provided into how these areas were determined. The ES should contain a robust justification to support the study areas and sensitive receptors selected for the purposes of the ES assessment, on the basis of recognised professional guidance and the extent of the likely impacts.</p> <p>It should be clear how the approach taken ensures that any heritage assets or conservation areas with long views towards or out from the Proposed Development have been identified and considered.</p> <p>The Inspectorate also considers that the setting influence of assets may extend beyond their strict designation boundary and that the wider landscape context should be considered in the assessment (in conjunction with assessments in the Landscape and Visual Amenity aspect chapter). Effort should be made to agree the approach and sensitive receptors with relevant consultation bodies. The study areas and locations of the heritage assets should be depicted on supporting plan/s.</p>	<p>Discussed with stakeholders and rationale set out in this chapter.</p>	<p>Section 8.4 Section 8.9</p>

Consultee	Summary of main matter raised	How has the matter been addressed?	Location of response in the chapter
	<p>The Applicant’s attention is drawn to consultation responses from Historic England and Lincolnshire County Council (Appendix 2 of this Opinion) which recommend that movement through a landscape, as well as from fixed viewpoints, should be considered in terms of impacts on heritage setting.</p>		
<p>Planning Inspectorate</p>	<p>The Scoping Report states that impacts may arise during construction and operation but does not discuss the potential impacts that may arise during the decommissioning of the Proposed Development. The Inspectorate considers that an assessment of potential effects arising from decommissioning should be included within the ES, particularly in relation to buried archaeological features e.g. the removal of piles may result in harm to these features.</p>	<p>An assessment has been made within this chapter.</p>	<p>Section 8.9</p>
<p>Bassetlaw District Council</p>	<p>The final cable routing should ensure best efforts have been taken to avoid areas of archaeological interest. Where this is not possible, we would expect appropriate geophysical surveys, trial trench evaluations and appropriate mitigation to all be undertaken.</p>	<p>The indicative cable alignment, where possible avoids areas of archaeological interest, including the use of trenchless solutions. This has been guided by the results of geophysical survey and trial trench evaluation undertaken for the Scheme and adjacent solar projects. The results of these surveys are detailed in the cultural heritage desk-based assessment and appendices to this ES chapter and have informed the assessment and additional</p>	<p>Appendices 8-2 and 8-5 of this ES [EN010142/APP/6.2]</p> <p>Section 8.9</p> <p>Section 8.10</p>

Consultee	Summary of main matter raised	How has the matter been addressed?	Location of response in the chapter
Bassetlaw District Council	Cottam to the north, Church Laneham to the south and Rampton to the west all have various designated and non-designated heritage assets that have the potential to be impacted by the proposed development. Cottam Power Station itself is a non-designated heritage asset and therefore should also be considered, although it is noted that permission has been granted for its demolition (21/01661/DEM) any weight given to this heritage assets will undeniably be reduced.	mitigation measures presented in this chapter. Designated and non-designated heritage assets within the study area selected and agreed with Stakeholders for the Scheme have been identified in the cultural heritage desk-based assessment accompanying this ES chapter and those potentially impacted by the Scheme assessed. This includes Cottam Power Station.	Appendix 8-2 of this ES [EN010142/APP/6.2] Section 8.9
Bassetlaw District Council	It would be expected that once the cable routing is in place, it is unlikely that there will be any impact on relevant heritage assets, but this should be fully explored within the ES.	Designated and non-designated heritage assets that may be affected by construction activities within the Cable Route Corridor have been identified in the cultural heritage desk-based assessment accompanying this ES chapter and those potentially impacted by the Scheme assessed.	Appendix 8-2 of this ES [EN010142/APP/6.2] Section 8.9
Canal and River Trust	The River Trent is a non-designated heritage asset and as a river navigation has potential for archaeological interest. Whilst the Scoping Report appears to have included a full list of affected designated heritage assets, impacts on non-designated heritage assets and the archaeology of the river environment should also be scoped into the Environmental Statement.	Non-designated heritage assets identified in the Lincolnshire and Nottinghamshire Historic Environment Records have been identified in the cultural heritage desk-based assessment accompanying this ES chapter and	Appendix 8-2 of this ES [EN010142/APP/6.2] Section 8.9

Consultee	Summary of main matter raised	How has the matter been addressed?	Location of response in the chapter
		<p>those potentially impacted by the Scheme assessed. This includes consideration of buried peat deposits within the flood plain of the River Trent and historic post-medieval clapper gates along the banks of the river.</p>	
<p>Historic England</p>	<p>We welcome a palette of mounting techniques and the informed use of open grassland areas to allow for the management physical impacts upon buried remains. In addition to the focus upon the impact of the panel arrays, fencing substations etc we note that this and related schemes include significant cable infrastructure for connection to grid. The significance / character /importance of assets on these cable routes will need to be well understood from an early stage such that route options can effectively be weighed and risks managed. Opportunities to share cable routes with other schemes should be actively sought. It is important both that opportunities for reduction in harm are realised and that the time required for archaeological evaluation and reporting is allowed for. Areas of heightened risk (burial sites / wet deposits / former water courses etc) should be afforded early attention as should resources requiring particular methodological approaches such for instance as battlefields or air crash.</p>	<p>With regard to the Cable Route Corridor both known heritage assets and those identified by a programme of archaeological evaluation undertaken for the Scheme and adjacent solar projects have been identified and where potentially impacted assessed in this ES chapter. Where possible a shared cable route has been used and opportunities to avoid heritage assets considered such as the use of trenchless excavation techniques to avoid archaeological remains where possible.</p>	<p>Appendix 8-2 and 8-5 of this ES [EN010142/APP/6.2]</p> <p>Section 8.8</p> <p>Section 8.9</p>
<p>Historic England</p>	<p>Given the landscape scale of this and associated (nearby) projects the schemes should seek to address</p>	<p>The East Midlands Historic Environment Research Framework</p>	<p>N/A</p>

Consultee	Summary of main matter raised	How has the matter been addressed?	Location of response in the chapter
	structures research questions about this landscape to ensure that localised archaeological interventions contribute to a whole (in terms of public value) which is more than the sum of their parts (see https://researchframeworks.org/emherf/).	was considered when defining the aims and objectives of the archaeological evaluation for the Scheme. It will also be used to inform the aims and objective of archaeological mitigation measures proposed in the Archaeological Mitigation Strategy.	
Historic England	We will discuss viewpoint locations further with the applicants and the potential for kinetic (sequential) views to add value to the assessment as the work progresses.	Comment noted.	N/A
Historic England	It is of particular importance to note to that the scheduled areas at Torksey, Littleborough etc only reflect those areas of national important remains identified in those particular designation episodes – remains are now known to extend more widely and there is high potential for further remains of national importance to survive in this extremely sensitive section of the Trent.	Comment noted. Non-designated heritage assets considered to be of potentially national importance have been identified and assessed as such e.g. Winter Camp of the Viking Great Army at Torksey [MLI125067].	Appendix 8-2 of this ES [EN010142/APP/6.2] Section 8.9
Historic England	As set out in our GPA 3 Setting of Heritage Assets at structured approach to setting impacts should be undertaken, it is generally unwise to apply a rigid radius for the assessment of setting effects, targeting for assessment should consider topography, designed and borrowed landscape relationships and the role of movement through the landscape as well as fixed point views and vista.	The approach to assessing setting set out in GPA 3 has been followed when considering the value and potential affects experienced by heritage assets. Study areas have been agreed with the stakeholders.	Appendix 8-2 of this ES [EN010142/APP/6.2] Section 8.4 Section 8.9

Consultee	Summary of main matter raised	How has the matter been addressed?	Location of response in the chapter
Lincolnshire County Council (LCC)	<p>It's vital that a competent full desk based assessment (DBA) be completed at the earliest opportunity as desk based work provides the basis for initial understanding. This is informed by and built upon by a full air photo/LiDAR assessment and geophysical survey which in turn assists in the development of the trial trenching programme. The full suite of archaeological evaluation is necessary to determine the archaeological potential and to inform an archaeological mitigation strategy which is reasonable, appropriate and fit for purpose.</p>	<p>A comprehensive cultural heritage desk-based assessment, aerial photo and LiDAR assessment have been completed for the Scheme. A programme of geophysical survey, trial trench evaluation and geoarchaeological borehole survey has also been completed and the reports provided as appendices to this chapter. The results of archaeological evaluations for adjacent solar projects have also been considered where appropriate to inform the assessment in this chapter and archaeological mitigation strategy.</p>	<p>Appendices 8-2, 8-4, 8-5, 8-6 and 8-7 of this ES [EN010142/APP/6.2]</p> <p>Section 8.8</p> <p>Section 8.9</p> <p>Section 8.10</p>
LCC	<p>The trial trenching will need to include not only trenching across known or suspected archaeology but also across the 'blank' areas to obtain baseline evidence where previous evaluation techniques have not identified archaeological remains. This is required to get a full understanding of the archaeology which will be impacted across the full impact zone and will inform the archaeological mitigation strategy which must be undertaken as part of the EIA.</p>	<p>Trial trench evaluation undertaken for the Scheme evaluated both archaeological anomalies and features identified by the preceding aerial photo and LiDAR assessment and geophysical survey, but also blank areas, as set out in the Written Scheme of Investigation approved by LCC. The results have informed the development of both embedded and additional mitigation measures for the Scheme.</p>	<p>Appendix 8-2, 8-4, 8-5 and 8-6 of this ES [EN010142/APP/6.2]</p> <p>Section 8.8</p> <p>Section 8.9</p> <p>Section 8.10</p>

Consultee	Summary of main matter raised	How has the matter been addressed?	Location of response in the chapter
LCC	Regarding Relevant Legislation, Planning Policy and Guidelines, the Lincolnshire Archaeology Handbook (2022) should be included which lays out the requirements for undertaking archaeological work in the County. EIA regulations should also be included in the Reference section and in the Legislation, Policy and Guidance section, and should be used as the basis for the EIA Environmental Statement.	The Lincolnshire Archaeology Handbook is referred to in the cultural heritage desk-based assessment and The Infrastructure Planning (Environmental Impacts Assessment (EIA)) Regulations 2017 in Appendix 8-1 of this ES [EN010142/APP/6.2] .	Appendices 8-1 and 8-2 of this ES [EN010142/APP/6.2]
LCC	Regarding the Study Area and Baseline Conditions, HER data for a 2km radius is required from the main site boundary and any proposed connection route options. Until they are descoped all connector route options need to be properly assessed as part of the development and as part of the ES.	The study areas used in this assessment have been developed in response to changes to the Order Limits and in consultation with stakeholders. Ultimately a 1km study area for non-designated heritage assets was agreed.	Section 8.4
LCC	All designated assets within a 5km radius should be taken into account for setting assessments. The significance of each asset must be assessed prior to scoping which assets would be affected. Modelling should particularly include any identified assets which have the potential to be visible or have their setting affected by the taller elements of the development.	All designated heritage assets have been identified to distance of 3km with designated heritage assets of the highest value (significance) between 3 – 5km. Where the value of an asset or its setting would potentially be affected by the Scheme it has been assessed in this ES chapter.	Section 8.4 Section 8.9
LCC	Regarding the Assessment Methodology, the assessment of heritage assets and impacts within the landscape needs to begin from an understanding of the significance of each heritage asset in order to assess the	The value (significance) of each heritage asset has been assessed as set out in the assessment methodology in this chapter and	Section 8.4 Section 8.9

Consultee	Summary of main matter raised	How has the matter been addressed?	Location of response in the chapter
	potential impact of the development upon them and put forward any potential benefit or mitigation of proposed negative impact.	carried forward to inform appropriate mitigation measures.	
LCC	It is not just potential visual impact with views to, from and across any other heritage asset which may be affected and how it can be viewed from any point which is publicly accessible, it's also how the heritage asset is experienced kinetically and within its landscape. Assessment of all this must start with an understanding of the significance of each heritage asset and any interrelationships it may have with other heritage assets as well as the landscape in which it sits, for example remnant field boundaries of the field system that surrounded and supported a Medieval village.	The assessment considers these points including the setting of assets, group value and interrelationships between assets where appropriate.	Section 8.9
LCC	Assessments of significance should be undertaken for all designated and undesignated assets which may be affected to ensure any assets subject to proposed descoping has an evidence base.	Each heritage asset potentially affected by the Scheme has been identified and its value assessed in the cultural heritage desk-based assessment accompanying this ES chapter. The DBA provides the evidence base for those assets scoped out of the impact assessment and for the value (significance) of those assets assessed in this ES chapter.	Appendix 8-2 of this ES [EN010142/APP/6.2] Section 8.9
LCC	Section 9.30 concludes that 'Where access cannot be obtained for this initial assessment, survey and/or evaluation work (as appropriate) will take place at a later	A programme of aerial photo and LiDAR assessment, geophysical survey, trial trench evaluation and	Appendices 8-2, 8-4, 8-5, 8-6 and 8-7 of this ES [EN010142/APP/6.2]

Consultee	Summary of main matter raised	How has the matter been addressed?	Location of response in the chapter
	<p>date, once access has been arranged, but prior to main works commencing.’ The full suite of archaeological evaluation is required. The evaluation work must be completed in time to inform the mitigation strategy which will lay out how the developmental impact on archaeology will be dealt with, therefore this will need to be submitted as part of the EIA.</p>	<p>geoarchaeological borehole survey have been completed and the reports provided as appendices to this chapter. The results of archaeological evaluations for adjacent solar projects have also been considered where appropriate to inform the assessment in this chapter and archaeological mitigation strategy.</p> <p>Where access to individual land parcels within the Order Limits has not been possible this has been discussed with LCC and appropriate measures will be included in the Archaeological Mitigation Strategy.</p>	
LCC	<p>Section 9.31 states that ‘The precise scope and nature of the archaeological evaluation work will be informed via further analysis of the desk-based assessment’ While the results of the DBA will inform the further evaluation phases, the full suite of evaluation will be required. Section 9.31 goes on to say ‘this may include trial trenching.’ Please be advised that full trenching results are essential for effective risk management and to inform programme scheduling and budget management. Failing to do so could lead to unnecessary destruction of heritage assets, potential programme delays and excessive cost increases that could otherwise be avoided. A programme of trial trenching is required to</p>	<p>A programme of aerial photo and LiDAR assessment, geophysical survey, trial trench evaluation and geoarchaeological borehole survey have been completed and the reports provided as appendices to this chapter. The results of archaeological evaluations for adjacent solar projects have also been considered where appropriate to inform the assessment in this chapter and archaeological mitigation strategy.</p>	<p>Appendices 8-2, 8-4, 8-5, 8-6 and 8-7 of this ES [EN010142/APP/6.2]</p>

Consultee	Summary of main matter raised	How has the matter been addressed?	Location of response in the chapter
	inform a robust mitigation strategy which will need to be agreed by the time the Environmental Statement is produced and submitted with the DCO application.		
LCC	Regarding Sources of Information, please be advised that archaeological reports, relevant documents from the Portable Antiquities Scheme (PAS) data must also be consulted. Map regression should include all available maps to provide a reasonable understanding of the development and time depth of the sites. A full competent LiDAR and air photo assessment including analysis and interpretation is required with full aerial photo coverage using all available oblique and vertical air photos including the Historic England Archive and Cambridge University Collection of Air Photos as well as RAF and Ordnance Survey photos including those held by Lincolnshire County Council.	The cultural heritage desk-based assessment prepared to support this ES chapter used a range of sources including archaeological reports, relevant documents, historic map regression to inform the assessment. A comprehensive aerial photographic and LiDAR assessment was also completed.	Appendices 8-2 and 8-4 of this ES [EN010142/APP/6.2]
West Lindsey District Council (WLDC)	The intention of a 3km zone for built heritage assets is largely agreeable (9.2). It is agreed that a 5km zone for “high-value assets” should be considered. However, it should clarify what is considered a “high-value asset”. The ability of the development to effect the setting of a heritage asset will depend upon the type of asset and the extent of its setting – not its “value”. Consequently the methodology should set out what designated assets within the 3-5km zone are, and are not included, and the reasoning for such.	Those heritage assets considered within the 3km and 3-5km study areas are set out in the cultural heritage desk-based assessment prepared to support this ES chapter, with those potentially affected by the Scheme identified and assessed in this chapter.	Appendix 8-2 of this ES [EN010142/APP/6.2] Section 8.6 Section 8.9
WLDC	It is noted that “Assets beyond this distance may also be considered, where identified as necessary by the county	Comment Noted.	N/A

Consultee	Summary of main matter raised	How has the matter been addressed?	Location of response in the chapter
	archaeologist or other ES chapter authors.” This should include the Local Planning Authority Conservation Officer.		
WLDC	The Local Planning Policy should also consider both designated and emerging neighbourhood Plan policies.	These are included in the cultural heritage desk-based assessment and Cultural Heritage Legislation, Policy and Guidance appendices prepared to accompany this ES chapter.	Appendices 8-1 and 8-2 of this ES [EN010142/APP/6.2]
WLDC	Baseline conditions. Neighbourhood Plans; Conservation Area appraisals will all have additional (non-designated) heritage assets to assess. There is also the Heritage Lincolnshire’s local list programme	Comment noted.	N/A
WLDC	What methodology is to be employed to distinguish Conservation Areas of “demonstrable high value”, from other Conservation Areas?	The special character of the Conservation Areas was assessed alongside the number, type and value (significance) of the constituent heritage assets, both designated and non-designated. No Conservation Areas of “demonstrable high value” were identified.	N/A
WLDC	The Heritage chapter also needs to consider the potential for cumulative harm to heritage assets, from other committed developments. This should include the three other solar project NSIPs proposed within West Lindsey.	Cumulative effects are considered in Chapter 18 of this ES.	Chapter 18: Cumulative Effects and Interactions of this ES [EN010142/APP/6.1]

Table 8-6: Main matters relevant to cultural heritage impacts raised through the Statutory Consultation

Consultee	Summary of main matter raised	How has the matter been addressed?	Location of response in the chapter
Historic England	The categorisation of designated and non-designated assets into High / Medium / Low value should allow more scope for professional judgement and consultee advice.	The value of heritage assets has been assessed taking into account advice from statutory consultees as well as considered professional judgement with peer review. Likewise with archaeological remains including those identified during the archaeological fieldwork.	A methodology for the assessment of value is given in paragraphs 8.4.22 to 8.4.25 of this chapter.
Historic England	The use of fixed study areas should allow for the application of professional judgement and consultee advice in respect of setting effects.	Setting effects are assessed and identified where applicable using professional judgement including the wider ZTV identified by the landscape team taken into account for assets between 3-5km from the Principal Site.	The approach to the study areas is detailed in paragraphs 8.4.1 to 8.4.8 of this chapter.
Historic England	The advice of the local government archaeological curators especially in respect of fieldwork management should be closely adhered to.	The Applicant has been consulting closely with the LCC historic environment curators throughout the fieldwork programme, as well as Historic England's scientific advisor for geoarchaeological matters. All Written Scheme of Investigations (WSIs) were agreed in advance, with weekly monitoring visits carried out by LCC historic environment officers during the trench evaluation programme within the Principal Site.	Fieldwork reports detailing the result of the trial trench evaluation and acknowledging monitoring of the works by LCC's Historic Environment officers are provided in Appendices 8-6-1 to 8-6-10 of this ES [EN010142/APP/6.2] .
West Lindsey District Council	Concern for the potential impacts on the settings of Harpswell Hall Scheduled Monument.	These assets and their settings have been discussed in consultation with Historic England to identify opportunities for mitigation of the impacts embedded within the design of the Scheme. Feedback was considered by the design team and incorporated into	Full assessment of the impacts upon Harpswell Hall in paragraph 8.9.18 of this chapter.

Consultee	Summary of main matter raised	How has the matter been addressed?	Location of response in the chapter
		<p>embedded mitigation with solar panel arrays set back further in fields than those first proposed, thus reducing the impact upon the setting and views on sensitive heritage receptors in Harpswell. The impacts are assessed in full within this ES chapter.</p>	
<p>Lincolnshire County Council</p>	<p>Generally welcome the approach to Cultural Heritage and progress towards sufficient evaluation to inform an appropriate archaeological mitigation strategy.</p>	<p>Comment noted.</p>	<p>N/A</p>
<p>Lincolnshire County Council</p>	<p>Comments regarding trial trench evaluation.</p>	<p>Trial trench evaluation for the Cable Route Corridor will be carried out post DCO consent where access or Site constraints prevent completion pre-application; this was agreed with the county archaeologist. An archaeological mitigation strategy will be produced that addresses the findings of the geophysical survey and geoarchaeology to inform the further ongoing fieldwork for the Cable Route Corridor.</p>	<p>Additional mitigation measures including possible trial trench evaluation are discussed in Section 8.10 of this ES chapter.</p>
<p>Bassetlaw District Council</p>	<p>It was noted that the bulk of the project is located within Lincolnshire, with the cable connection extending through Bassetlaw District to connect with the National Grid's Cottam Substation in Bassetlaw District Council. Consequently, this response concerns the proposals for the cable route and not main site.</p>	<p>Comment noted.</p>	<p>N/A</p>

Consultee	Summary of main matter raised	How has the matter been addressed?	Location of response in the chapter
Bassetlaw District Council	It is noted that at this preliminary stage of the Scheme, the accesses along the Cable Route Corridor have not been assessed so are not taken into account in respect of the study area distances from the Scheme Boundary. Accesses not included in the PEIR chapter are to assessed at the ES stage	Heritage assets that may be affected by construction of the Cable Route Access Routes have been included for assessment in this ES chapter.	Section 8.9
Bassetlaw District Council	Consultation with the District Conservation Team noted that the proposal is located within the setting of several listed buildings primarily within the areas of Cottam and Rampton The Fleet Plantation Scheduled Ancient Monument and a number of non-designated heritage assets, including the Cottam Power Station site, Rampton Manor Unregistered Park and Garden and a number of complex archaeological sites within the boundaries of the development area were highlighted. The key considerations are the scheme's impact upon the setting of the district's designated heritage assets and the scheme's impact upon the setting of the district's	All designated and non-designated heritage assets within the agreed study areas for the Scheme have been identified in the cultural heritage desk-based assessment prepared to support this ES chapter. Those assets potentially affected by the Scheme have been included in the impact assessment.	Appendix 8-2 of this ES [EN010142/APP/6.2] Section 8.9

Consultee	Summary of main matter raised	How has the matter been addressed?	Location of response in the chapter
	<p>archaeological sites, some of which lie within the boundaries of the development area. The scheme's impact upon the districts non-designated heritage assets will also be given consideration.</p>		
<p>Bassetlaw District Council</p>	<p>Conservation has no concerns with the principle of development and any associated impact that it may have upon the setting of the district's above ground/built heritage. The southern portion of the cable route corridor would terminate at Cottam Power Station, which is sited within the District of Bassetlaw in North Nottinghamshire.</p> <p>None of Bassetlaw's above ground heritage assets lie within the boundaries of the development area. However, the proposed cable route is located within the setting of a number of designated and non-designated heritage assets. This is because the works that are focused within Bassetlaw relate primarily to</p>	<p>Designated and non-designated heritage assets potentially affected by the Scheme, including through possible change to the setting of an asset, have been identified in the cultural heritage desk-based assessment and scoped into the assessment presented in this ES chapter where appropriate.</p>	<p>Appendix 8-2 of this ES [EN010142/APP/6.2]</p> <p>Section 8.9</p>

Consultee	Summary of main matter raised	How has the matter been addressed?	Location of response in the chapter
	the installation of underground interface cabling.		
Bassetlaw District Council	In reaching the above views, Conservation has had regard to: Section 66(1) of the Planning (Listed Buildings & Conservation Areas) Act 1990; Policy DM8 of the Bassetlaw Core Strategy (December 2011); Paragraphs 189, 194, 195, 197, 199, 203 and 206 of the NPPF (July 2021); as well as guidance contained in Historic England’s Advice Note 15 – Commercial Renewable Energy Development (Feb 2021).	Comment noted.	N/A
Bassetlaw District Council	As a general point, the cabling route should take the least historically and environmentally sensitive route unless unavoidable and should include the necessary mitigation where appropriate.	Comment noted. The Cable Route Corridor has been designed to avoid environmental constraints, where possible, following survey work completed along the alignment. The Applicant has worked with other solar developers to reduce the width and impact of the Cable Route Corridor. Where crossing environmentally and historically sensitive sites is unavoidable, trenchless crossings have been proposed, e.g. of the River Trent and Cow Pasture Lane. Where avoidance of heritage assets is not possible appropriate mitigations measures have been proposed.	Section 8.8 Section 8.9 Section 8.10
Local residents	Concern for heritage asset and their settings	Full assessment of archaeology and heritage assets has been carried out within this ES Chapter, with embedded	Assessment of heritage assets and their settings

Consultee	Summary of main matter raised	How has the matter been addressed?	Location of response in the chapter
Historic England	<p>Regarding the increased the extent of the Order limits falling within Stow Park Road/Till Bridge Lane (A1500) to the east of Marton and within Till Bridge Lane (West and East) (A1500) to the east of Marton.</p> <p>We note the proposed amendments to the Order limits, we have identified potential for additional impacts upon archaeological remains at the references above on the line of the Roman Road between Lincoln and Doncaster to the north of Stow Park (medieval bishops palace / hunting park) and associated remains of hamlet see:-</p> <p>Un-designated Roman Road between Lincoln and Doncaster https://www.heritagegateway.org.uk/Gateway/Results_Single.aspx?uid=a0d60d46-06b7-4404-acdf-4039dab81c64&resourceID=19191 Un-designated Settlement at Stow Park</p>	<p>mitigation measures incorporated into design to minimise impacts upon heritage assets.</p> <p>Heritage assets within the Order limits are identified as scoped into/out of the impact assessment in the cultural heritage desk-based assessment prepared to support this ES chapter.</p> <p>This chapter includes an assessment of impacts on all heritage assets likely to be affected within the heritage study areas of the Scheme and outlines mitigation proposed. An Archaeological Mitigation Strategy will be submitted following consultation with Lincolnshire County Council Historic Environment Officers.</p>	<p>in Section 8.9 of this chapter.</p> <p>Appendix 8-2 of this ES [EN010142/APP/6.2]</p> <p>Section 8.9</p>

Consultee	Summary of main matter raised	How has the matter been addressed?	Location of response in the chapter
	<p>https://www.heritagegateway.org.uk/Gateway/Results_Single.aspx?uid=7b0f0df7-c494-472f-a1c8-8d3591f6170e&resourceID=19191 Scheduled Monument - The medieval bishop's palace and deer park, Stow Park https://historicengland.org.uk/listing/the-list/list-entry/1019229</p> <p>Whilst archaeological impacts associated with the above changes to the order limits are unlikely to amount to a significant environmental themselves they this should nevertheless be addressed in archaeological mitigation.</p>		
Bassetlaw District Council	<p>There are a number of complex archaeological sites located within the boundaries of the proposed cable route corridor. The significance of these sites, and their implications on this proposal should be assessed separately by the Council's archaeological consultee.</p>	<p>Archaeological assets are identified in relation to the Scheme in the cultural heritage desk-based assessment prepared to support this ES chapter.</p> <p>This chapter includes an assessment of impacts on all heritage assets likely to be affected within the heritage study areas of the Scheme and outlines mitigation proposed. An Archaeological Mitigation Strategy will be submitted following consultation with Bassetlaw District Council's archaeological advisor.</p>	<p>Appendix 8-2 of this ES [EN010142/APP/6.2]</p> <p>Section 8.9</p>

Consultee	Summary of main matter raised	How has the matter been addressed?	Location of response in the chapter
Bassetlaw District Council	<p>In respect of the amendments to Scheme Conservation has no concerns with the majority of the amendments that are proposed under this submission, as the alterations to the Order land upon which the scheme will take place would have very little impact upon the District's built heritage.</p> <p>However, Conservation has concerns with some of the proposed amendments, specifically with revision No.1 – Land to the South of Torksey Ferry Road. This amendment would see a linear range of agricultural land which runs along the southern aspect of Torksey Road increased to allow for working room for the laying of the proposed cable route corridor. The medieval Fleet Plantation Moated Site Scheduled Ancient Monument (List Entry Number: 1008594) is a concern. The proposed amendment is unlikely to directly impact upon the physical fabric of the monument, however, there may be potential impact from encroachment upon the</p>	<p>This ES chapter includes an assessment of impacts on all heritage assets likely to be affected by the Scheme and outlines mitigation proposed. This includes construction activities that may affect the Fleet Plantation scheduled monument.</p> <p>Embedded mitigation includes a 20m wide buffer along the northern edge of the monument in which no construction activities will be undertaken.</p> <p>Additional mitigation measures for as yet previously unknown buried archaeological remains will be set out in the Archaeological Mitigation Strategy which will be submitted following consultation with Bassetlaw District Council's archaeological advisor.</p>	<p>Section 8.9</p> <p>Section 8.8</p> <p>Section 8.10</p>

Consultee	Summary of main matter raised	How has the matter been addressed?	Location of response in the chapter
	<p>setting of the scheduled ancient monument and any unknown archaeological deposits that may lie within the periphery of the site. Given the proximity between the Fleet Plantation site and the revised Order land, Conservation insist that further information is provided regarding revision No.1. Specifically, clarification as to what activities/uses are proposed within the parcel of land located immediately to the north of the Fleet Plantation Moated Site.</p>		
<p>Bassetlaw District Council</p>	<p>Conservation also has no concerns with majority of the revisions that are proposed under these amended plans. However, Conservation has concerns with revision No.1 – Land to the South of Torksey Ferry Road. In order to properly assess this aspect of the scheme, Conservation would require further clarification as to what activities/uses are proposed to be undertaken on the parcel of land relating to this revision.</p>	<p>Change 1 relates to the provision of land to ensure sufficient working space for the trenchless drilling of the cable alignment under Torksey Ferry Road to National Grid Cottam Substation. This ES chapter includes an assessment of impacts on all heritage assets likely to be affected within the heritage study areas of the Scheme and outlines archaeological mitigation proposed.</p>	<p>Section 8.9 Section 8.10</p>
<p>Lincolnshire County Council</p>	<p>From discussions with the applicant it is noted that application area has</p>	<p>The Principal Site boundary has reduced in size from approximately 1,400ha to 1,350ha with amendments to</p>	<p>Details of the trial trenching are included</p>

Consultee	Summary of main matter raised	How has the matter been addressed?	Location of response in the chapter
	<p>reduced from 1400 to 1350ha for the redline boundary and the cable route stays the same. Clarification was sought about whether any of the slightly expanded Order limits will require evaluation.</p> <p>However engagement with the applicant team has worked very effectively so there is confidence that if there are any modest areas that do need field evaluation this will be done quickly. The overall trenching report is expected to be submitted to the Council, but if required an addendum can be produced, and once received dialogue can start on agreeing the necessary mitigation.</p>	<p>the Cable Route Corridor boundary since statutory consultation. This chapter includes an assessment of impacts on all heritage assets likely to be affected within the heritage study areas of the Scheme and outlines mitigation proposed. Details of the trial trenching are included within Appendix 8-6 of this ES [EN010142/APP/6.1].</p>	<p>within Appendix 8-6 of the ES [EN010142/APP/6.1].</p> <p>Section 8.9</p>
Historic England	<p>Reference (8) Increasing the extent of the Order limits falling within Stow Park Road/Till Bridge Lane (A1500) to the east of Marton.</p> <p>Reference (9) Increasing the extent of the Order limits falling within Till Bridge Lane (West and East) (A1500) to the east of Marton.</p> <p>We note the proposed amendments</p>	<p>Heritage assets within the Order limits are identified as scoped into/out of the impact assessment in the cultural heritage desk-based assessment prepared to support this ES chapter.</p> <p>This chapter includes an assessment of impacts on all heritage assets likely to be affected within the heritage study areas of the Scheme and outlines mitigation proposed. An Archaeological Mitigation Strategy will be submitted following consultation with Lincolnshire County Council Historic Environment Officers.</p>	<p>Appendix 8-2 of this ES [EN010142/APP/6.2]</p> <p>Section 8.9</p>

Consultee	Summary of main matter raised	How has the matter been addressed?	Location of response in the chapter
	<p>to the order limits, we have identified potential for additional impacts upon archaeological remains at the references above on the line of the Roman Road between Lincoln and Doncaster to the north of Stow Park (medieval bishops palace / hunting park) and associated remains of hamlet see :-</p> <p>Un-designated Roman Road between Lincoln and Doncaster https://www.heritagegateway.org.uk/Gateway/Results_Single.aspx?uid=a0d60d46-06b7-4404-acdf-4039dab81c64&resourceID=19191 Un-designated Settlement at Stow Park https://www.heritagegateway.org.uk/Gateway/Results_Single.aspx?uid=7b0f0df7-c494-472f-a1c8-8d3591f6170e&resourceID=19191 Scheduled Monument - The medieval bishop's palace and deer park, Stow Park https://historicengland.org.uk/listing/the-list/list-entry/1019229</p> <p>Whilst archaeological impacts</p>		

Consultee	Summary of main matter raised	How has the matter been addressed?	Location of response in the chapter
	<p>associated with the above changes to the order limits are unlikely to amount to a significant environmental themselves they this should nevertheless be addressed in archaeological mitigation.</p>		
<p>Bassetlaw District Council</p>	<p>a) The development area is located within the setting of several listed buildings. These assets are localised primarily within the areas of Cottam and Rampton;</p> <p>b) The development area is located within the setting of the Fleet Plantation Scheduled Ancient Monument (List Entry Number: 1008594; Designated: 16th February 1953);</p> <p>c) The development area is located within the setting of a number of non-designated heritage assets, most prominent of which is the Cottam Power Station site, which is itself a non-designated heritage asset, as identified by the Council's approved criteria;</p> <p>d) The development area is located within the setting of the Rampton Manor Unregistered Park and</p>	<p>This ES chapter includes an assessment of impacts on all heritage assets likely to be affected within the heritage study areas of the Scheme and outlines mitigation proposed.</p>	<p>Section 8.9</p> <p>Section 8.10</p>

Consultee	Summary of main matter raised	How has the matter been addressed?	Location of response in the chapter
	Garden; e) There are a number of complex archaeological sites that reside within the boundaries of the development area;		

Table 8-7: Main matters relevant to cultural heritage impacts raised through technical engagement

Meeting and Date	Consultees	Summary of Discussions
Heritage Stakeholder Teams meeting 28 November 2022	Lincolnshire County Council Historic Environment Officers; Bassetlaw District Council Officers; West Lindsey District Council Officer; Historic England	Introduction to the Scheme, discussion of deliverables and timeframes, extent of study areas, fieldwork update on the geophysical survey and expectations for trench evaluation.
Heritage Stakeholder Teams meeting 21 March 2023	Lincolnshire County Council Historic Environment Officers, Historic England Wessex Archaeology	Meeting to discuss approach for trial trench evaluation for the Principal Site and geoarchaeology scope. Agreement for WSI submissions and sign-off agreed. Approach for monitoring site visits agreed and weekly reporting agreed.
30 March 2023 Email	Historic England Science Advisor	Approval and feedback on trial trench WSI.
3 April 2023 Email	Lincolnshire County Council Historic Environment Officers	Email received confirming Lincolnshire County Council Historic Environment Officers' approval for the trench evaluation WSI.
3 April to 25 September 2023	Lincolnshire County Council Historic Environment Officers	Weekly reports summarising progress and emerging results of the trial trench evaluation of the Principal Site, provided by email.
25 May 2023 Teams meeting	Historic England Science Advisor Wessex Archaeology	Call to discuss geoarchaeology scope and fieldwork.
12 June 2023 Email	Lincolnshire County Council Historic Environment Officers, Historic England Science Advisor, Wessex Archaeology	Email setting out revised approach for fieldwork in relation to the Cable Route Corridor.

Meeting and Date	Consultees	Summary of Discussions
28 June 2023 Email	Historic England Science Advisor	Approval and feedback on the geoarchaeology WSI.
8 August 2023 Teams Meeting	Lincolnshire County Council Historic Environment Officers, Historic England Science Advisor	Meeting to discuss progress of trial trench evaluation of Principal Site. Emerging areas of archaeological significance and early discussion to inform the development of appropriate mitigation measures, including preservation areas including proposed methods for grassland creation.
24 August 2023 Teams meeting	Historic England Team Leader	Call to discuss design and impacts in relation to high value heritage assets at Harpswell and Glentworth, with suggestions for mitigation.
13 September 2023 Email	Historic England Team Leader	Email communication from Historic England with feedback following their site visit, with reiteration of the advice given at the meeting held 24 August 2023.
18 September	Lincolnshire County Council Senior Historic Environment Officer	Email providing draft technical methodology for creating and maintaining species rich grassland within areas of archaeological preservation within the Principal Site for comment/agreement.
1 November 2023 Email	Notts County Council County Archaeologist Bassetlaw DC heritage representatives	Email to update on heritage for Tillbridge and approach for fieldwork and sharing of archaeological data in relation to the cable route corridor within their council jurisdictions.
6 November 2023 Email	Notts County Council County Archaeologist	Email response to acknowledge email sent 1 November 2023.
19 December 2023 Email	Lincolnshire County Council Senior Historic Environment Officer	Email confirming that LCC are providing archaeological advice in relation to Bassetlaw.
9 and 10 January	Lincolnshire County Council Senior Historic Environment Officer	Email correspondence to confirm agreement in principle of methods for creating and maintaining species rich grassland within areas of archaeological

Meeting and Date	Consultees	Summary of Discussions
29 January 2024 Email	Historic England Science Advisor	preservation. This highlighted the need to review fields containing surviving earthwork remains e.g. ridge and furrow. Review and feedback on the geoarchaeological report.

8.6 Baseline Conditions

Existing Baseline

- 8.6.1 This section presents the baseline cultural heritage resource for the Principal Site and the Cable Route Corridor, identifying those assets with the potential to be impacted by the Scheme.
- 8.6.2 All of the heritage assets in the existing baseline are detailed further in the historic background and value assessment within the Cultural Heritage DBA (**Appendix 8-2** of this ES [EN010142/APP/6.2]) and those assets potentially affected by the Scheme have been taken forward into the assessment in this chapter. The assets and other relevant datasets are identified in the accompanying gazetteers (**Appendix 8-3** of this ES [EN010142/APP/6.2]) and figures to this chapter.
- 8.6.3 Assets with group value are considered collectively, such as historic buildings (designated and non-designated) within conservation areas. Heritage assets which have value that transcends the wider grouping have been discussed separately.
- 8.6.4 The Scheme occupies an area which has largely not been subject to previous archaeological investigation, highlighted by the presence of only ten previous recorded Archaeological Events within the Order limits detailed in the Gazetteer in **Appendix 8-3** of this ES [EN010142/APP/6.2].

Designated Heritage Assets

- 8.6.5 There are no designated heritage assets located within the Order limits of the Principal Site or the Cable Route Corridor. Within 3km of the Order limits, 186 designated heritage assets have been identified; of these, 70 are within 1km of the Scheme.

Scheduled Monuments

- 8.6.6 There are 17 scheduled monuments, all of high value, within 3km of the Order limits. These are listed below with further details provided in the gazetteers in **Appendix 8-3** of this ES [EN010142/APP/6.2]:
- a. Harpswell Hall, post-medieval house and gardens overlying medieval settlement remains [NHLE 1019068];
 - b. Dovecote at Elm Tree Farm, Heapham [NHLE 1020196];
 - c. Moated manorial complex immediately northwest of Elm Tree Farm, Heapham [NHLE 1016920];
 - d. Cross in All Saints churchyard, Heapham [NHLE 1018290];
 - e. Roman fort, south of Littleborough Lane [NHLE 1004935];
 - f. Fleet Plantation moated site [NHLE 1008594];
 - g. The medieval bishop's palace and deer park, Stow Park [NHLE 1019229];
 - h. Coates medieval settlement and moated site [NHLE 1016979];

- i. Site of a college and Benedictine Abbey, St Mary's Church, Stow [**NHLE 1012976**];
 - j. Monks Garth moated site [**NHLE 1011456**];
 - k. Site of medieval preceptory and settlement remains, Temple Garth [**NHLE 1007689**];
 - l. Segelocum Roman town, Littleborough [**NHLE 1003669**];
 - m. Torksey Castle [**NHLE 1005056**] (also a Grade I listed building [**NHLE 1064079**]);
 - n. The site of medieval town of Torksey [**NHLE 1004991**];
 - o. Owmbly Roman Settlement [**NHLE 1004922**];
 - p. Deserted Village of Dunstall [**NHLE 1004996**]; and
 - q. Gilby Medieval Settlement and Cultivation Remains [**NHLE 1016795**].
- 8.6.7 Within 3-5km of the Principal Site Order limits there are a further four scheduled monuments, all of high value, namely:
- a. Southorpe medieval settlement and cultivation remains [**NHLE 1016794**];
 - b. Site of Heynings Priory [**NHLE 1008685**];
 - c. Hermit Dam moated site [**NHLE 1016110**]; and
 - d. Cross in St Martin's Churchyard [**NHLE 1018291**].

Listed Buildings

- 8.6.8 There are a total of 163 listed buildings within the 3km study area which include 145 are Grade II listed assets of medium value. None are located within the Order limits.
- 8.6.9 There are 15 Grade I listed buildings within 3km of the Order limits, all of high value:
- a. Church of All Saints [**NHLE 1233879**];
 - b. Gateway from Manor Farm to Churchyard and attached walls 7m west of Manor Farmhouse [**NHLE 1276407**];
 - c. Church of St. Margaret of Antioch [**NHLE 1359484**];
 - d. Church of St Mary [**NHLE 1146624**];
 - e. Church of All Saints [**NHLE 1064048**];
 - f. Church of St Lawrence and St George [**NHLE 1146616**];
 - g. Church of St Chad [**NHLE 1309029**];
 - h. Church of St Peter [**NHLE 1233511**];
 - i. Torksey Castle [**NHLE 1064079**];
 - j. Church of St John the Baptist [**NHLE 1234072**];
 - k. Church of St Martin [**NHLE 1234265**];
 - l. Church of St Nicholas [**NHLE 1216860**];

- m. Fillingham Castle [**NHLE 1166045**];
- n. Church of St Lawrence [**NHLE 1064162**]; and
- o. Church of St Edith [**NHLE 1146742**].

8.6.10 There are 11 Grade II* listed buildings within 3km of the Order limits, all of high value:

- a. Church of St Michael [**NHLE 1309078**];
- b. Glentworth Hall [**NHLE 1063348**];
- c. Church of All Saints [**NHLE 1166242**];
- d. Church of St Peter [**NHLE 1064078**];
- e. Torksey Viaduct over River Trent [**NHLE 1359456**];
- f. Church of All Saints [**NHLE 1275880**];
- g. Gate Burton Hall [**NHLE 1359458**];
- h. Burton Chateau [**NHLE 1064085**];
- i. Monument 10 yards south of chancel of Church of St Andrew [**NHLE 1309113**];
- j. Church of St Andrew [**NHLE 1359847**]; and
- k. Church of All Saints [**NHLE 1146810**].

Conservation Areas

8.6.11 There are no conservation areas within the Order limits. Within the 3km study area there are four conservation areas, all of medium value:

- a. Glentworth [2790], within 1km of the Principal Site to the east;
- b. Hemswell [2793], within 1km of the Principal Site to the north-east;
- c. Springthorpe [2805], within 1km of the Principal Site to the west; and
- d. Fillingham [2785] located within 3km of the Principal Site to the south-east.

Registered Parks and Gardens

8.6.12 There are two Grade II registered Parks and Gardens which fall within or overlap with the 3km of the Order limits, both of medium value:

- a. Fillingham Castle [**NHLE 1000977**]; and
- b. Norton Place [**NHLE 1470334**].

Non-designated Heritage Assets

8.6.13 There are a total of 422 non-designated heritage assets recorded by the HERs and during archaeological surveys within the 1km study area, excluding findspots, with 55 located within the Principal Site and 23 within the Cable Route Corridor Order limits.

Historic Landscape Characterisation

- 8.6.14 The historic landscape character within the Order limits is predominantly agricultural, with elements of medieval open fields and early enclosure surviving within the later enclosure fields of the 18th and 19th centuries, which in some areas themselves survive as part of the large, regular fieldscape of the 20th century.
- 8.6.15 Within the Lincolnshire section of the Scheme, two historic landscape character zones (HLCZ) are identified east of the River Trent. The eastern edge of the Principal Site falls within HLCZ TVL:1 The Trent Valley (The Northern Cliff Foothills), along the scarp and foot of the Lincoln Cliff. The majority of the Principal Site and the Lincolnshire section on the Cable Route Corridor lie wholly within HLCZ NCL3: The Northern Cliff (The Cliff Edge Airfields).
- 8.6.16 West of the River Trent, the historic landscape characterisation for Nottinghamshire was assessed at a different granularity to that of Lincolnshire, with smaller historic landscape character types defined to reflect the differing origins, layout, surviving features and development of the landscape. The Cable Route Corridor extends across five of Nottinghamshire historic landscape character types (HLCT):
- a. Patterns reflecting open fields;
 - b. Regularly laid out large geometric field patterns;
 - c. Irregular geometric field patterns;
 - d. Semi-regular field patterns; and
 - e. Urban Areas.

Historic Hedgerows

- 8.6.17 A total of 31 historic hedgerows have been identified in the DBA (**Appendix 8-2** of this ES [EN010142/APP/6.2]), with 30 within criteria deeming them important under the Hedgerows Regulations 1997 (Ref. 8-8) and one identified as a probable important hedgerow. These are illustrated on **Figure 8-6** of this ES [EN010142/APP/6.3]. Such hedgerows are regarded as being of low heritage value and are regarded as non-designated assets for the purposes of assessment in this chapter.

8.7 Future Baseline

- 8.7.1 In the absence of the Scheme, it is anticipated there would be no alteration to the cultural heritage baseline as presented in this chapter by the time construction of the Scheme would be completed in 2027 or should the construction phase be delayed or extended beyond this.
- 8.7.2 Effects in relation to future development are considered within **Chapter 18 Cumulative Effects and Interactions** of this ES [EN010142/APP/6.1].

8.8 Embedded Design Mitigation

- 8.8.1 This section sets out the embedded mitigation measures, relevant to cultural heritage and archaeological matters that are already incorporated into the Scheme design, as described in **Chapter 3: Scheme Description** of this ES [EN010142/APP/6.1].

Construction and Decommissioning

- 8.8.2 The Scheme design has been carefully considered to avoid, reduce, or mitigate potentially significant effects on the cultural heritage and archaeological assets. Heritage mitigation measures which have been embedded into the design of the Scheme include avoidance, where possible, of heritage assets or archaeological remains.
- 8.8.3 Embedded mitigation measures will be employed to minimise impacts to heritage assets before and during the construction and decommissioning works for the Scheme, as set out within the **Framework Construction Environmental Management Plan (CEMP)** [EN010142/APP/7.8] and **Framework Decommissioning Environmental Management Plan (DEMP)** [EN010142/APP/7.10]. These measures may include, but are not limited to, siting haulage and access routes away from sensitive receptors, use of low noise generators, placement of security and work lights to minimise light spill with sympathetic screening of works.
- 8.8.4 Landscape design principles and mitigation are included within the **Framework LEMP** [EN010142/APP/7.17] and therefore embedded in the Scheme design and accounted for in the assessment process. Embedded mitigation planting takes into consideration the surrounding landscape character to screen views to or from some heritage assets, respecting historic field boundaries and patterns.
- 8.8.5 As set out within the **Framework LEMP** [EN010142/APP/7.17], reinstatement of hedgerows removed along the Cable Route Corridor is proposed.
- 8.8.6 An avoidance measure has included appropriate setbacks incorporated into the Scheme design and as part of drawing the Order limits, with buffer areas included around non-designated historic farmsteads within the Principal Site to ensure they are excluded from the Scheme, although they may still incur setting impacts. These buffers vary from around 30m (where existing dense screening is in place) or more generally a minimum of 50m up to around 300m (refer to **Framework LEMP** [EN010142/APP/7.17] for further information).
- 8.8.7 As set out within the **Framework LEMP** [EN010142/APP/7.17], embedded design principles have been incorporated into the Scheme between the PEI Report and ES stage taking into account stakeholder feedback to minimise impacts on key heritage assets nearest the Scheme:
- a. Changing the Order limits in the north-eastern corner of the Principal Site, removing two fields completely from the Scheme to avoid impacts upon the scheduled monument Harpswell Hall [NHLE 101906]. These were fields 107a and 107b.

- b. Removal of solar panels from two fields west of the scheduled monument at Harpswell Hall [**NHLE 1019068**] to mitigate impacts upon heritage and landscape, in fields 108 and 109, including designed views from the former 'prospect mound' and similar views from permissive paths along the historic moat.
 - c. Removal of solar infrastructure from field 124 north of Kexby Road and west of Northlands Road to mitigate heritage impacts relating to the setting and views from Glentworth Hall [**NHLE 1063348**] and the non-designated historic farmstead Glentworth Grange [**MLI118040**].
- 8.8.8 In respect of surface earthworks and buried archaeological remains, embedded mitigation within the Principal Site includes the establishment of 26 Sensitive Archaeology Sites (see **Figure 3-1** of this ES [**EN010142/APP/6.3**] and **Table 8-8** of this chapter), which have been excluded from development and photovoltaic panels to preserve the archaeological remains. The Sensitive Archaeology Sites are secured by Work No. 11 of Schedule 1 of the **draft DCO [EN010142/APP/3.1]**. The selection of each Sensitive Archaeology Site has been guided by the baseline and survey data, with the extent of each site guided by the results of the trial trench evaluation. Each Sensitive Archaeological Site has been defined to include a sufficient buffer to avoid impacts to the buried archaeological remains or extant earthworks.
- 8.8.9 Each Sensitive Archaeology Site will be demarcated by fencing to avoid accidental entry and disturbance of archaeological remains during the construction and decommissioning of the Scheme. Where ecological habitat creation is required within a Sensitive Archaeology Site, e.g. species rich grassland, it would be established using low tillage methods and would be subject to annual maintenance in the form of mowing. Details for the preservation of archaeological remains in the Sensitive Archaeology Areas will be set out in an Archaeological Mitigation Strategy and secured through a Requirement of the **draft DCO [EN010142/APP/3.1]**.

Table 8-8: Sensitive Archaeology Sites

Sensitive Archaeological Site No.	Asset Reference	Description
SAS 1	AEC001	Two groups of rectilinear enclosures representing a Late Iron Age to Romano-British rural settlement or farmstead, identified in Field 3.
SAS 2	AEC002	Enclosure complex representing a Late Iron Age to Romano-British rectilinear rural settlement or farmstead, identified in Field 4. Residual finds of Neolithic flint arrowhead and possible blades also recorded indicate earlier activity.
SAS 3	AEC003	Extant, but poorly surviving medieval/post-medieval ridge and furrow identified in Field 16.
SAS 4	AEC004	Complex of rectilinear ditches with possible enclosures, curvilinear gullies, and discrete pits, representing a Romano-British farmstead, identified in Field 31.
SAS 5	AEC005	A Late Iron Age to Romano-British farmstead defined by cluster of interconnected and overlapping rectilinear and curvilinear enclosures, gullies and pits, identified in Fields 139 and 140.
SAS 6	AEC006	A small enclosure complex defined by ditched enclosures and associated ditches identified in Fields 45 and 47. The remains may represent a Romano-British farmstead contemporary with the enclosures identified in Fields 139 and 140.
SAS 7	AEC007	Two small rectilinear enclosures with a ring ditch/drip gully and linked by curvilinear gullies forming a boundary or track were identified in Field 55. The remains appear to represent a Romano-British farmstead.
SAS 8	AEC008	A complex of Late Iron Age to Romano-British rectilinear and a D-shaped enclosures, with smaller ditches and gullies representing internal subdivisions was recorded in Field 62, representing a rural settlement or farmstead.

Sensitive Archaeological Site No.	Asset Reference	Description
SAS 9	AEC009	A large complex of Late Iron and Romano-British periods rectilinear enclosures and settlement activity, representing a developed farmstead, was recorded in Field 68. Discrete and clustered pits and post-holes, and dumps of possible midden material were recorded among the enclosures, while three crop-drying ovens were recorded to the south and east of the settlement complex. Residual Middle Iron Age pottery suggests a possible earlier phase of settlement.
SAS 10	AEC010	A large 'L-shaped' complex of rectilinear enclosures, crop-drying oven and gravel surface was recorded in the centre of Field 60 and represent a Romano-British developed farmstead.
SAS 11	AEC011	A dense and complex cluster of rectilinear ditches, gullies, pits, postholes and evidence for a timber-built structure recorded in Fields 49 and 54. The remains represent multiple phases of a Romano-British farmstead or small rural settlement site.
SAS 12	AEC012	A series of connected Romano-British enclosures with internal divisions and a possible trackway were recorded in Field 87.
SAS 13	AEC013	A large Late Iron Age to Romano-British settlement complex corresponding with cropmark evidence [MLI53952] was identified within Fields 87 and 98.
SAS 14	AEC013	
SAS 15	AEC015	A large sub-rectangular enclosure with smaller internal, curvilinear ditches and possible evidence for a structure were recorded Fields 99 and 100. The remains represent the southern extent of the large, developed Romano-British farmstead or settlement complex [AEC015/MLI53952] recorded in Fields 87 and 98.
SAS 16	AEC016	A small cluster of enclosures defined by ditches and gullies was recorded with Fields 102 and 106, representing a Romano-British farmstead.

Sensitive Archaeological Site No.	Asset Reference	Description
SAS 17	AEC017	A complex of small, 'cell-like' rectangular, ditched enclosures of Romano-British were exposed in the western part of Field 112, correlating with anomalies identified by the geophysical survey and a previous archaeological watching brief undertaken for the Caenby Corner to Gainsborough Replacement Gas Pipeline [ELI5070 and ELI5075].
SAS 18	AEC018	A complex of ditches defining a series of sub-rectangular settlement enclosures in Field 123. The settlement or farmstead appears to have occupied for the duration of the Romano-British period.
SAS 19	AEC019	A large enclosure complex comprising a rectangular enclosure with generally regular internal subdivisions and small groups of gullies and discrete pits indicating multiple inhabited spaces within the settlement was identified in Field 115, extending into Fields 94. The remains represent a farmstead originating the Late Iron Age and occupied into the Romano-British period.
SAS 20	AEC020	Two enclosure complexes were identified in Field 116 comprising ditches, gullies, a small number of pits and ditch/gully terminals representing a series abutting curvilinear cells with possible internal divisions, pits and hearths. Finds dating to the Late Iron Age and Romano-British periods suggest that the settlement was contemporary with that recorded in Fields 94 and 115.
SAS 21	AEC021	A second complex of ditched enclosures represent a small Late Iron Age to Romano-British settlement or farmstead in Field 116.
SAS 22	MLI50291	A medieval moated site [MLI50291] identified in the southwest corner of Field 124. The remains of the moat and associated features were identified from historic mapping. Surveys undertaken for the Scheme confirmed the extent of the moat together with evidence for levelling/ ground raising deposits, occupation layers, several stone walls and a stone surface.
SAS 23	AEC022	

Sensitive Archaeological Site No.	Asset Reference	Description
SAS 24	AEC022	A large complex of Romano-British enclosures was identified at the foot of the Lincoln Cliff extending across Fields 131, 132 and 137. Evidence for earlier occupation activity was also recorded in the form of a Late Neolithic/Early Bronze Age (Beaker) pit and residual prehistoric pottery found in later Romano-British features.
SAS 25	AEC022	
SAS 26	AEC023	Two undated, parallel but discontinuous ditches, one over 400 m in length, with a coaxial arrangement of undated subsidiary ditches recorded just inside the eastern boundary of the Principal Site in Fields 133 and 134.

- 8.8.10 Where it has not been possible to exclude all intrusive construction/decommissioning activities from the Sensitive Archaeological Sites, e.g. within the route of the internal cable corridor through SAS 11, additional mitigation measures would be implemented through the Archaeological Mitigation Strategy which would be submitted for approval and secured through a requirement of the **draft DCO [EN010142/APP/3.1]**.
- 8.8.11 Within the Cable Route Corridor the proposed cable route alignment has, where possible, taken into account significant archaeological remains. As set out within the Framework CEMP **[EN010142/APP/7.8]**, embedded mitigation within the Cable Route Corridor will include:
- a. A 20m buffer zone in which no construction activity will take place will be established along the northern side of the Fleet Plantation scheduled monument **[NHLE 1008594]**;
 - b. The use of Horizontal Directional Drilling (HDD) to install the high-voltage (HV) cables rather than open cut trenching for the avoidance/preservation of buried peat deposits **[MNT27156]** of potential Neolithic date within the floodplain of the River Trent; and
 - c. The use of trenchless crossing rather than open cut trenching to avoid impacts to the extensive complex of Iron Age and Romano-British enclosures, field system and trackway **[MNT4983; AEC032]** east of Cow Pasture Lane, Cottam.
- 8.8.12 Details for the avoidance/preservation areas will be set out in an Archaeological Mitigation Strategy which would be submitted for approval pursuant to a requirement of the DCO.

8.9 Assessment of Likely Impacts and Effects

- 8.9.1 **Chapter 3: Scheme Description** of this ES **[EN010142/APP/6.1]** has been considered in assessing the likely impacts and effects of the Scheme, whilst taking into account the embedded mitigation described in the previous section of this chapter.
- 8.9.2 A proportionate assessment of likely effects on the heritage resource is provided in this section. As such, only those assets which are considered to potentially experience an impact from the Scheme are assessed. Details of assets in the existing baseline which have been scoped out from assessment in this chapter are provided in the DBA in **Appendix 8-2** of this ES **[EN010142/APP/6.2]**.
- 8.9.3 Baseline statements of value (significance) and assessment of the setting of heritage assets are provided in the DBA (**Appendix 8-2** of this ES **[EN010142/APP/6.2]**). The following impact assessment draws on these to understand and assess the likely impacts and effects of the Scheme on assets scoped in for assessment in this chapter.
- 8.9.4 The Scheme may have direct physical impacts upon unknown below ground archaeological remains during the construction phase, which cannot be avoided by changes to the design. Impacts on unknown archaeological remains or deposits are based on the assumption that they are well preserved. The identification of potential physical impacts upon

archaeological remains within the Scheme considers all activities that may entail ground disturbance or compaction.

- 8.9.5 With reference to noise during construction, operational and decommissioning phases of the Scheme, a noise assessment has been undertaken as set out in **Chapter 13: Noise and Vibration** of this ES [EN010142/APP/6.1]. The noise assessment considers effects of increased noise on sensitive receptors where occupants of buildings may be impacted by noise or vibration levels as well as buildings which may be sensitive to vibration. These have been grouped for assessment into residential and non-residential receptors respectively. The assessment in this chapter on heritage assets for noise or vibration impacts will take account of the peaceful character and quietness of setting when this is a factor in an asset's value or where vibration may affect the historic fabric of an asset. Operational noise and vibration impacts are not applicable to the Cable Route Corridor.

Heritage Assets Scoped into Assessment

- 8.9.6 The DBA (**Appendix 8-2** of this ES [EN010142/APP/6.2]) presents a detailed assessment of the heritage resource baseline, including an appraisal of the setting and significance of designated and non-designated heritage assets located within the study areas, as well as the historic landscape character and historic hedgerows.
- 8.9.7 The DBA identified assets which would not experience any impacts or effects as a result of the construction, operation, or decommissioning of the Scheme and were scoped out of assessment within this ES chapter.
- 8.9.8 There would be no physical impacts upon designated heritage assets during any phases of the Scheme. Those designated assets scoped into assessment in this ES chapter are those identified in the DBA due to impacts upon their setting which could affect their value.
- 8.9.9 Of the 17 identified scheduled monuments in the baseline within the 3km study area of the Scheme, the following six have been scoped into the assessment:
- a. Harpswell Hall, post-medieval house and gardens overlying medieval settlement remains [NHLE 1019068];
 - b. Moated manorial complex immediately northwest of Elm Tree Farm, Heapham [NHLE 1016920];
 - c. The medieval bishop's palace and deer park, Stow Park [NHLE 1019229];
 - d. Roman fort, south of Littleborough Lane [NHLE 1004935];
 - e. Segelocum Roman town, Littleborough [NHLE 1003669]; and
 - f. Fleet Plantation moated site [NHLE 1008594].
- 8.9.10 Other designated heritage assets scoped into this assessment from the baseline are:
- a. Church of St Chad [NHLE 1309029] Grade I;

- b. Church of St Margaret of Antioch [**NHLE 1359484**] Grade I and Cross [**NHLE 1146582**] Grade II;
- c. Glentworth Hall [**NHLE 1063348**] Grade II* and Nos 1 to 4 Hall Cottages (former stable block at Glentworth Hall) [**NHLE 1166094**] Grade II;
- d. 14 High Street [**NHLE 1064029**] Grade II;
- e. Manor Farmhouse [**NHLE 1359486**] Grade II;
- f. 25, Gainsborough Road [**NHLE 1308917**] Grade II;
- g. Thornleigh House [**NHLE 1359485**] Grade II;
- h. Wapping Lane Farmhouse [**NHLE 1146611**] Grade II;
- i. Berfoston Cottage [**NHLE 1064060**] Grade II;
- j. Ingelby Arms Public house [**NHLE 1064057**] Grade II;
- k. Windmill [**NHLE 1064059**] Grade II;
- l. Corringham Windmill [**NHLE 1359417**] Grade II;
- m. Stow Park Station [**NHLE 1064058**] Grade II and Signal Box [**NHLE 1146606**] Grade II; and
- n. Church of Holy Trinity [**NHLE 1212380**] Grade II and Font [**NHLE 1370089**] Grade II.

8.9.11 Non-designated built heritage assets scoped in for assessment from the baseline are:

- a. Harpswell Low Farm [**MLI97809**];
- b. Harpswell Grange [**MLI118025**];
- c. Billyards Farm (Low Farm) [**MLI118029**];
- d. Glentworth Grange [**MLI118040**];
- e. Manor Farm, Heapham [**MLI118062**];
- f. Heapham Cliff, Heapham [**MLI118063**];
- g. Grange Farm (Heapham grange) [**MLI118064**];
- h. South View, Heapham [**MLI118065**];
- i. Spitals Farm [**MLI118038**];
- j. Low Farm [**MLI118039**];
- k. Springthorpe Grange [**MLI118053**];
- l. Magin Moor Farm [**MLI117378**];
- m. Hemswell Grange [**MLI118023**];
- n. Church Farm [**MLI118026**];
- o. Hermitage Farm Barns [**MLI86737**];
- p. Clapper Gate 31 [**MNT27760**]; and
- q. Cottam Power Station [**MNT25450**].

8.9.12 Non-designated archaeological assets identified by the baseline as potentially being impacted by the Scheme and scoped into the assessment

are listed below. This includes heritage assets identified during the course of surveys and archaeological evaluation undertaken for the Scheme and adjacent solar projects (e.g. aerial photographic and LiDAR interpretation, geophysical survey, trial trench evaluation and geoarchaeological borehole survey and deposit modelling);

- a. Late Iron Age to Romano-British Enclosure Complex [**AEC001**];
- b. Late Iron Age to Romano-British Enclosure Complex [**AEC002**];
- c. Extant earthwork ridge and furrow [**AEC003**];
- d. Romano-British enclosure complex [**AEC004**];
- e. Late Iron Age to Romano-British Enclosure Complex [**AEC005**];
- f. Romano-British enclosure complex [**AEC006**];
- g. Romano-British enclosure complex [**AEC007**];
- h. Extant earthwork ridge and furrow [**AEC042**];
- i. Late Iron Age to Romano-British Enclosure Complex [**AEC008**];
- j. Iron Age to Romano-British Enclosure Complex [**AEC009**];
- k. Iron Age to Romano-British Enclosure Complex [**AEC010**; **MLI51010**];
- l. Romano-British enclosure complex [**AEC011**];
- m. Romano-British enclosure complex [**AEC012**];
- n. Late Iron Age to Romano-British Enclosure Complexes [**AEC013**; **MLI53952**];
- o. Late Iron Age to Romano-British Enclosure Complex [**AEC015**];
- p. Late Iron Age to Romano-British Enclosure Complex [**AEC014**];
- q. Romano-British Enclosure Complex [**AEC016**];
- r. Romano-British Enclosure Complex [**AEC017**; **MLI86409**];
- s. Romano-British Enclosure Complex [**AEC018**];
- t. Late Iron Age to Romano-British Enclosure Complex [**AEC019**];
- u. Late Iron Age to Romano-British Enclosure Complexes [**AEC020** and **AEC021**];
- v. Romano-British Enclosure Complex [**AEC022**];
- w. Possible trackway and field boundaries [**AEC023**];
- x. Medieval moated site [**MLI50291**];
- y. Medieval deer park pale [**MLI54002**];
- z. Former ridge and furrow and boundary ditches [**MLI86414**,,];
- aa. Demolished unnamed post-medieval farm [**MLI118027**];
- bb. Demolished unnamed post-medieval farm [**MLI118030**];
- cc. Demolished post-medieval Northlands Farm, Glentworth [**MLI118035**];
- dd. Demolished post-medieval Heapham Grove Farm [**MLI118061**];
- ee. Post-medieval Brick Kiln [**MLI53950**];

- ff. RAF Sturgate [**MLI50912**];
- gg. Second World War anti-aircraft and searchlight battery [**MLI80678**];
- hh. Undated enclosure [**MLI53953**];
- ii. Undated crop/soil marks [**MLI53951** and **MLI54000**];
- jj. RAF Hemswell [**MLI53944**];
- kk. The Serpentine water feature [**MLI51005**];
- ll. Cropmark and earthwork features [**AEC041**];
- mm. Cropmark and earthwork features [**AEC043**];
- nn. Undated enclosure [**AEC024**];
- oo. Normanby-by-Stow shrunken medieval village [**MLI52445**];
- pp. Possible Iron Age or Romano-British field system [**AEC028**];
- qq. Till Bridge Lane Roman road [**MLI50575**];
- rr. Ridge and furrow cultivation [**MLI52492**];
- ss. Late Iron Age or Romano-British field system [**AEC038**];
- tt. Romano-British trackway and field boundaries [**MLI52489**];
- uu. Post-medieval flood defences [**MLI52488**];
- vv. Circular archaeological anomalies [**AEC030**];
- ww. Winter Camp of the Viking Great Army at Torksey [**MLI125067**];
- xx. Peat deposits west of the River Trent [**MNT27156**];
- yy. Iron Age or Romano-British enclosure complex [**AEC031**; **MNT15983**];
- zz. Cropmark complex [**MNT4983**; **AEC032** and **AEC033**];
- aaa. Romano-British settlement [**AEC035**]; and
- bbb. Medieval or post-medieval field boundary [**MNT6116**].

8.9.13 The following historic landscape character zones and historic landscape character types extend into the Order limits and have been scoped into the assessment:

- a. HLCZ TVL:1 The Trent Valley (The Northern Cliff Foothills);
- b. HCLZ NCL3: The Northern Cliff (The Cliff Edge Airfields);
- c. HLCT: Patterns reflecting open fields;
- d. HLCT: Regularly laid out large geometric field patterns;
- e. HLCT: Irregular geometric field patterns;
- f. HLCT: Semi-regular field patterns; and
- g. HLCT: Urban Areas.

8.9.14 There are 31 historic hedgerows identified as important, or of probable importance, under the Hedgerows Regulations 1997 (Ref. 8-8) in the baseline scoped in for assessment in this chapter. Such hedgerows constitute features of the historic landscape and are assessed on an

individual basis as non-designated assets which could be impacted by the Scheme.

Construction (estimated 2025 to 2027)

- 8.9.15 This section identifies the potential impacts, either temporary (short-term) or permanent (longer-term), resulting from the construction phase of the Scheme.
- 8.9.16 During the construction phase, impacts upon the heritage resource may occur from activities including vegetation clearance, planting, groundworks, earthmoving operations, spoil storage, highway works, access road construction, topsoil removal, vehicular movements, noise, vibration, dust and the building of new structures.
- 8.9.17 The potential impacts upon heritage assets resulting from the construction phase of the Scheme include:
- a. Temporary short-term impacts to the setting of heritage assets affecting their value from construction activities which can be incremental until construction is completed;
 - b. Permanent long-term impacts to the setting of assets affecting their value as a result of the of the introduction of the physical form and appearance of the Scheme at the construction stage, including the maturation of screen planting (considered to be over a period of up to 15 years), which remain present for the duration of the operational phase but may be ultimately reversible;
 - c. Physical impacts to the historic landscape and features as a consequence of construction; and
 - d. Permanent irreversible truncation, compaction or loss of archaeological remains or deposits caused by intrusive groundworks as part of the active construction of the Scheme and/or from the temporary enabling works.

Designated Assets

Harpwell Hall [NHLE 1019068]

- 8.9.18 The scheduled monument Harpwell Hall is located to the north-east of the Principal Site, outside of the Order limits, on the west facing escarpment and spring line of the limestone ridge.
- 8.9.19 The scheduled monument of Harpwell Hall comprises the earthworks and surviving buried remains of a post-medieval house and gardens overlying medieval settlement remains immediately south of Hall Farm.
- 8.9.20 The scheduled monument is associated with other non-designated earthworks and features (deserted village earthworks [MLI51003], evidence relating to the scheduled monument and wider park [MLI51004], and the Serpentine watercourse [MLI51005]), which form constituent elements of the medieval and post-medieval landscape and are relevant to the understanding of the scheduled monument and its setting. The extent of the non-designated asset [MLI51004] recorded on the LHER includes further

evidence of the medieval settlement which extended further west of the scheduled monument towards the Principal Site.

- 8.9.21 Harpswell Hall was a post-medieval house, dating to the early 17th century, with formal gardens and a park overlying a settlement of Saxon origins. There were originally two manors, both in the possession of the Whichcote family, who in the late 16th or early 17th century partially removed the depopulated medieval village to build the house and gardens within an emparked setting. During alterations undertaken in the mid-18th century, a stream leading to the ornamental moat was widened to produce a serpentine water feature (the meandering now defunct watercourse extending to the south-east is not included in the scheduling [MLI51005]). The remains of the formal gardens, ornamental moat and sunken garden dating between the early 16th and mid-18th centuries, and part of the earlier medieval settlement, are visible as earthworks. The moat may have been adapted from an earlier manorial site. The prospect mound to the north-west of the Hall, standing 3.5m high, is situated at the corner of the formal garden once possessing a spiral hollowed pathway to reach a gazebo at its summit offering views across the gardens and surrounding landscape. A sunken garden included in the design, is evidenced by earthworks forming the end point to a sunken drive or avenue. This had wide flat-topped banks to the north and south, approximately 250m long, with a screen of trees along its southern side. A few of the trees still survive with the avenue evidenced by linear banks and scarps in the field. The avenue appears to take the tower of the Church of St Chad [NHLE 1309029] as its focus point which would have provided a vista towards the church from the Hall.
- 8.9.22 The monument includes the earthwork and surviving buried foundation remains of Harpswell Hall, demolished around 1836, with the estate sold by the Whichcotes in 1918. The remains of the medieval village of Harpswell were surveyed in 1978 [ELI372], recovering a small volume of medieval pottery. The earthworks, features and buried remains, including the foundations of the Hall, constitute archaeological evidence of the development of a high-status element of the post-medieval landscape. Overlaying the remains of an earlier medieval settlement, the scheduled monument derives its significance from its considerable historic and archaeological interest.
- 8.9.23 The 1820 map (**Plate 8-1**) illustrates the extent of the historic parkland that stretched westwards from Harpswell Hall. It includes the watercourse or leat that runs from Harpswell Lane to the moat. Clusters of trees or ‘platoons’ appear to have been planted in a deliberate and ornamental manner with Harpswell Wood being the outer extent of the designed parkland. The platoon trees are scattered in groups across fields roughly equating with fields 108 and 109 of the masterplan, plus others to the south. Those to the east roughly align to the earlier tree avenue with the church leading to the Hall (as illustrated on the 1824 map) and with views designed from the Prospect Mound, part of the scheduled monument.



Plate 8-1– Map of Harpswell 1820

© OGL v1.0 Commons Wikimedia Ordnance Survey Drawings – Hackthorn, Lincolnshire OSD 282

- 8.9.24 Following statutory consultation, the design for Fields 108 and 109 was altered from inclusion of solar panel arrays to biodiversity enhancement zones, with planting along the fields boundaries to partly screen any views of the Scheme from Harpswell but also to replicate the effect of the earlier platoon tree planting in views west from the monument, particularly along the eastern boundaries of Fields 108 and 109. The revised Scheme layout is shown on the **Figure 3-1: Indicative Principal Site Layout Plan** of this ES [EN010142/APP/6.3].
- 8.9.25 Harpswell village has been identified as a sensitive residential noise receptor, R5, in **Chapter 13: Noise and Vibration** of this ES [EN010142/APP/6.1]. Temporary daytime noise levels from solar panel, Solar Station and substation construction and cable laying activities were identified. Temporary levels were assessed as **not significant**.
- 8.9.26 The setting of the various scheduled features includes the visual and spatial inter-relationships between them, with each element contributing towards the appreciation and understanding of the monument. Beyond this, the primary setting of the monument includes Hall Farm to the north of the formal gardens and the area of pastureland surrounding the monument. Its wider setting includes the settlement of the village and in particular the Grade I listed Church of St Chad [NHLE 1309029] situated a short distance to the east, to which the avenue once stretched. The bucolic setting of the surrounding open agricultural countryside has remained largely unchanged since the early 19th century, making a strong contribution to the value of the monument and how it is experienced and understood.
- 8.9.27 Views out across the landscape to the west and south vary seasonally with the vegetation and when viewed at different locations from within the scheduled monument. These views were incorporated as part of the historic design of the ornamental gardens of Harpswell Hall and formed part of the earlier parkland following the depopulation of the medieval village. Views

extending westwards towards the Principal Site rise on a slight topographic incline with West Burton Power Station visible in the distance. Views westwards over the countryside from the prospect mound within the scheduled monument are limited due to overgrown vegetation and tree cover. Views southwards from the scheduled monument towards fields within the Order limits of the Principal Site are afforded through gaps in the trees and across hedgerows.

- 8.9.28 The longer-term impacts to setting as a result of the installation of the Scheme have been reduced by embedded mitigation with the movement of solar arrays and Scheme infrastructure to fields further west, away from the scheduled monument. Views of the Scheme would still be visible across the fields in the initial years after construction but would become less visible as the enhanced planting matures, softening the landscape views and screening the Scheme infrastructure, as illustrated by the winter and summer images of the proposed landscape in the photomontages for **VP14** taken at the moat looking westwards (**Figure 12-12a [EN010142/APP/6.3]**). Whilst the designed views associated with the historic parkland would be eroded in the initial years of the Scheme, this would be mitigated in the longer-term by the embedded design incorporating the biodiversity zones and tree planting. This will aid retention and articulation of the wider landscape as open countryside, reinforcing the historic relationship and visual legibility of the wider landscape setting and the planned intention of Harpswell Hall, gardens and parkland. The larger Scheme infrastructure with the Solar Stations and BESS, as illustrated in the **Framework LEMP [EN010142/APP/7.17]** and visible in the **VP14** photomontages, are indicative locations and there may be scope to move these elsewhere in the detailed design to further reduce the impact of the introduction of a semi-industrial landscape in the views from the scheduled monument (although the assessment assumes a worst case location).
- 8.9.29 Before the plant screening has matured, the shorter-term impact of the presence of the Scheme on the value of the scheduled monument would be diminished affecting the understanding and appreciation of the asset to some degree as the Scheme would be visible as seen in the **VP14** photomontages. Construction activities from noise and enabling works would also detract to some extent from the tranquillity of the experience of the asset but these would be temporary. Once the screen planting has matured, the asset would be understood and appreciated continuing in the historic manner it was intended. The longer-term impact as a result of the construction on Harpswell Hall [**NHLE 1019068**] as an asset of High value is assessed with a magnitude of impact of Very Low, resulting in a **minor adverse (not significant)** effect.

Moated Manorial Complex Immediately Northwest of Elm Tree Farm, Heapham [NHLE 1016920]

- 8.9.30 The medieval moated complex at Elm Tree Farm [**NHLE 1016920**], located approximately 580m west of the Principal Site, represents one of two foci of settlement at Heapham overlying an earlier medieval field system. The scheduled monument comprises the extant earthwork remains of the complex, including a moated platform, or island, with a series of earthwork

features, including square ditched enclosures and remains of medieval ridge and furrow cultivation covering an area measuring approximately 310m by 240m.

- 8.9.31 The moated island takes the form of a roughly square platform, completely enclosed by a water-filled moat, with fragments of stone on the northern edge of the island indicating that the remains of structures survive. The moated island is surrounded by a complex of linked ditches, channels and ponds which formed a water management system. The channels may represent the original northern limits of the manorial complex, within which ancillary structures, paddocks, and gardens associated with the manor house would have been located. In addition to the surviving earthworks the scheduled monument preserves the buried archaeological remains of the manorial complex, including the potential for waterlogged organic remains. These remains have the potential to provide an insight into domestic and economic activity on the site.
- 8.9.32 The immediate rural context of the scheduled monument is enclosed within a single field surrounded by mature, tree lined hedgerows which allow filtered views across the surrounding agricultural landscape. The setting of the monument includes the surrounding fields which once formed part of the open field system of the village of Heapham. This includes the field to the east of the scheduled monument, also outside of the Order limits, which contains the earthwork remains of ridge and furrow cultivation, the historic core of the village and further ridge and furrow earthworks in fields to the south. Post-medieval and modern elements have been introduced into this setting, including Elm Tree Farm to the southeast and the village of Sturgate to the northwest. Within the monument the visual and spatial interrelationships between the elements of the manorial complex contribute to the appreciation and understanding of the monument.
- 8.9.33 As a well-preserved example of a medieval moated manorial complex, the scheduled monument has significant historical and archaeological interest providing evidence for origins, form and development of manorial sites, medieval settlement patterns and the development of the wider medieval landscape. It is therefore of high value.
- 8.9.34 As noted above, the setting of the scheduled monument encompasses the earthwork remains of the moated manorial site and the remains of the medieval open field system within which it was constructed. This includes the earthwork remains of ridge and furrow cultivation to the east, beyond which elements of the Scheme may be visible in filtered views between existing vegetation and the buildings of Elm Tree Farm. Visibility of the Scheme will be reduced further by embedded mitigation which includes setting back solar panels from the western boundary of the Order limits through the creation of species rich grassland (BZ4 and BZ5) and proposed native woodland to screen the Scheme in views from the west (e.g. along the western side of Solar PV areas 12, 14 and 32), as shown in the **Framework LEMP [EN010142/APP/7.17]**.
- 8.9.35 The introduction of the Scheme into the wider agricultural landscape of the asset will not alter the key interrelationships between the domestic and agrarian components of the surviving earthwork remains e.g. the moated

platform, square ditched enclosures and surrounding medieval ridge and furrow cultivation. The way in which the asset is understood as a small rural manor, located on the edge of a medieval village and set within the surrounding open field would still be able to be appreciated and understood with barely any change arising from visible elements of the Scheme on the western horizon.

- 8.9.36 The scheduled monument is of high value and would experience no physical impact to the earthwork and buried remains of the moated manorial site. The imposition of the Scheme into the wider agricultural landscape west of the asset would, however, result in a very low magnitude of impact as a result of changes to its setting. This change would result in a **minor adverse** significance of effect, which is considered to be **not significant**.

The Medieval Bishop's Palace and Deer Park, Stow Park [NHLE 1019229]

- 8.9.37 The scheduled monument is situated approximately 1.1km south of the Cable Route Corridor and approximately 110m to the south of Till Bridge Lane. The monument includes the buried and earthwork remains of a medieval palace of the Bishops of Lincoln (nearest the Cable Route Corridor), together with associated fishponds, water features and deer park which is split into two additional areas of protection. The moated site on which the palace stood, is raised about 2m above the surrounding ground level, on gently sloping ground overlooking the Trent valley to the south and west. The site is sub-rectangular in plan, measuring about 75m by 85m. On its western side, a causeway represented the principal medieval access to the palace. No standing remains of the medieval palace survive, however the buried remains of the domestic and service buildings of the palace will survive below the platform, which is surrounded by a substantial moat, 3m in depth beyond which lies an outer bank.
- 8.9.38 The medieval deer park associated with the palace formerly occupied an area of about 275ha extending southwards from the moated site. The surviving remains of the park pale are evidenced by linear banks, protected within the schedule in two areas, 1.5km and 1km to the south-west and south-east of the moated site respectively. These earthworks are the only surviving features of a formerly extensive landscape feature.
- 8.9.39 The setting of the bishop's palace and deer park is defined by its surrounding rural landscape which is still largely preserved. This includes the surrounding remains of the deserted medieval village of Stow Park and surviving elements of the ridge and furrow cultivation [**MLI52447** and **MLI52492**] that would have formed part of the associated open fields north of the A1500. In the wider landscape, the interrelationship with the medieval settlement at Stow and the minster church of St Mary also form part of the setting of the asset as they contribute to the understanding of its position in the landscape. The setting of the asset therefore contributes to its value. The high value of this asset is primarily derived from the historic and archaeological interest preserved by the earthworks and buried archaeological deposits and documentary sources contributing to the understanding of the monument, its construction, layout and use of the palace buildings in addition to the social and economic activity on the site.

- 8.9.40 Construction activities within the Cable Route Corridor and the use of Cable Route Corridor Access 12 on the busy A1500 Till Bridge Lane are likely to be limited to a period of several months. During this time there is potential for temporary changes to the setting of the scheduled monument. The earthwork and buried archaeological deposits that form the physical fabric of the asset will not be impacted.
- 8.9.41 Views northwards from the scheduled monument towards the Cable Route Corridor would be filtered to varying degrees, and depending on the time of year, by the high hedgerows flanking Till Bridge Lane and intervening fields. In addition, although located within the 300m construction noise study area, no significant effects were identified in **Chapter 13: Noise and Vibration** of this ES [EN010142/APP/6.1] for near-by residential receptors R34 - Manor Farm, Till Bridge Lane and R35 - Danes Farm / Highfield Farm **Figure 13-1: Noise Sensitive Receptors and Noise Monitoring Locations** of this ES [EN010142/APP/6.3].
- 8.9.42 The installation of the high voltage cable within the Cable Route Corridor and the use of the A1500 by construction traffic would barely affect setting of the monument or the ability to understand and appreciate the form, layout, status and use of the domestic and recreational components of the Bishop's Palace and deer park to the south. Nor would it affect the asset's interrelationship with the wider agricultural landscape associated with the deserted medieval village of Stow Park [MLI52447 and MLI52492] and proximity to the important religious centre of at St Mary's Church, Stow.
- 8.9.43 Temporary street works and improvements to the highway alignment would be required on the A1500 north of the asset at the junction of Till Bridge Lane and Stow Park Road (Point 17/04) and the private means of access onto the A1500 west of Stow Park (Point 18/01 shown on **Streets, Rights of Way and Access Plans** [EN010142/APP/2.4]). These works would also result in temporary visual and noise intrusion within the setting of the scheduled monument. Till Bridge Lane, as a historic routeway dating to the Roman period forms part of the landscape and setting of the monument, but the proposed works on what is a busy modern A road would barely affect our ability to understand and appreciate the heritage interest of the asset.
- 8.9.44 The temporary construction activities for the Cable Route Corridor and associated access within the wider agricultural landscape of the scheduled monument would result in a very low magnitude of impact as a result of changes to the setting of this high value asset. This change would result in a temporary **minor adverse** significance of effect, which is considered to be **not significant**.

Roman Fort, South of Littleborough Lane [NHLE 1004935]

- 8.9.45 This scheduled monument is located approximately 870m north of the Cable Route Corridor, west of Marton. The monument consists of the buried archaeological remains of a 1st or 2nd century fortification, likely an auxiliary fort visible as cropmarks. The remains of the fort survive as three sides of a sub-rectangular enclosure with rounded corners, defined by two parallel ditches between 2m and 3.5m across, with a visible break in both the internal and external ditches on its eastern side, likely indicating a gateway.

The value of the fort is therefore principally derived from its archaeological and historic interest, with the surviving buried archaeological deposits retaining significant potential to inform the understanding of its construction, use, nature of occupation and role in the Roman military advance northwards through Lincolnshire.

- 8.9.46 The strategic location of the fort overlooking the crossing of Tillbridge Lane at the fording point on the Trent and the close proximity to the Roman roadside settlement north of Tillbridge Lane and the scheduled Roman town of *Segelocum* on the western bank of the River Trent, provide a strong historic and group value, which is further enhanced by the scarcity of such military features in the East Midlands during this period.
- 8.9.47 The setting of the fort is defined by its strategic position on high ground with open views of the hinterland east and northwest along the Roman road and River Trent to the west. It also has a functional setting as it was likely built to defend the river crossing at *Segelocum* Roman town to the west as well as the surrounding hinterland. The fort's setting and its close association with other features of Roman date in the wider landscape, particularly the Roman road, contributes to its value. However, the setting of the fort has been eroded to the west by the construction of the Cottam and West Burton power stations which dominate the horizon and the imposition of high voltage electricity pylons and overhead cables into the landscape.
- 8.9.48 The Cable Route Corridor is located south and southwest of the scheduled monument within the wider rural landscape of the Trent Valley. The key elements of strategic and functional setting of the asset; the strategic relationship between the fort and the Till Bridge Lane Roman road to the north, the crossing of the River Trent and Roman town of *Segelocum* to the northwest of the scheduled monument, will not be affected by construction of the Scheme. The buried archaeological deposits that comprise the physical remains of the scheduled monument will also not be affected. Impacts arising from the Scheme would be limited to glimpsed views of construction plant and vehicles within the agricultural landscape of the Trent Valley.
- 8.9.49 This high value asset would experience a very low magnitude of impact as a consequence of temporary changes to its setting arising from construction activities arising from installation of the HV cable connection within the wider rural landscape. This would result in a temporary **minor adverse** significance of effect, which is **not significant**.

***Segelocum* Roman Town, Littleborough [NHLE 1003669]**

- 8.9.50 At its closest, the scheduled monument is located approximately 1.4km northwest of the Cable Route Corridor. The monument is visible on aerial photographs and is thought to extend over an area of approximately 400m by 300m. Within the scheduled area there is a crossroads meeting of four roads, defined by a ditch on either side. Within the quadrants created by the crossroads, there are rectilinear subdivisions. Parts of 1st century timber buildings have been found during excavations within the scheduled area, as well as two kilns and a small domed oven, along with building debris, coins and pottery dating to the late 1st to later 4th centuries AD. Investigations have not been able to define the limits of the settlement or to determine whether it

had defences or military occupation. Aerial photography undertaken in 2005 showed the site clearly as ditched cropmarks with a parch mark showing the course of a Roman road south of the settlement. Additional ditches and enclosures are visible, along with numerous pits of varying sizes.

- 8.9.51 Geophysical survey carried out in 2016 within and around the scheduled monument identified several features of the Roman town including the rectilinear subdivisions and roads. The survey also confirmed that there were significant levels of settlement activity beyond the previously understood limits of the settlement, and therefore beyond the area of the scheduled monument. The value of the scheduled monument is therefore primarily derived from its considerable archaeological interest.
- 8.9.52 The setting of the Roman town is defined by its location on the Tillbridge Lane Roman Road, adjacent to the crossing point of the River Trent which would have provided important transport links to the town. Other Roman assets located within proximity to the town, including a Roman fort, and multiple Roman rural settlements located along the Roman road, also form part of the setting of the town as they contribute to the understanding of the position and context of the Roman town and its location within a wider landscape of Roman settlement activity. The setting of the Roman town therefore contributes to the high value of the scheduled monument.
- 8.9.53 The Cable Route Corridor is located approximately 1.4km southeast of the Roman town, in what would have been part of the agricultural hinterland extending southwards along the Trent valley. This is evidenced by the extensive remains of Romano-British rural settlement recorded as cropmarks and from archaeological investigations west of Cottam and at Rampton respectively. The distance of the Scheme from the asset would limit potential impacts to glimpsed views of construction plant and vehicles in the wider agricultural landscape south of the asset. These changes would barely affect setting of the monument or the ability to understand and appreciate the relationship between the *Segelocum* and its wider rural landscape.
- 8.9.54 The temporary changes to the setting of the asset as a result of construction activities within the wider agricultural landscape of *Segelocum* would result in a temporary very low magnitude of impact as a result of changes to the setting of this high value asset. This change would result in a **minor adverse** significance of effect, which is considered to be **not significant**.

Fleet Plantation Moated Site [NHLE 1008594]

- 8.9.55 Dating from the medieval period, this monument is located immediately south of the Cable Route Corridor, and approximately 165m south of Cottam Power Station. The monument consists of a well-defined moat with ditches, up to ten metres wide and two metres deep, enclosing a square area roughly 70m along each side. Brick and tile evidence indicate the presence of a 16th or 17th century building on the site overlaying an earlier timber building. Across the moat, remains of a causeway are evident along the north side.
- 8.9.56 The rural setting of this monument has been considerably diminished by the presence of Cottam Power Station a short distance to the north. However, the immediate context of the monument is the woodland which entirely surrounds it with the site heavily overgrown, such that the asset cannot be

readily understood or appreciated in its historic setting. The monument's high value is primarily derived from the archaeological and historic interest of the well surviving features and remains which provide a good example of a small medieval domestic site.

- 8.9.57 Construction activities in the field immediately north of the asset will include topsoil stripping for the 40m construction corridor, the open cut cable trench and the trenchless crossing platforms (T1 as shown on **Figure 3-11: Cable Route Corridor Trenched and Trenchless Crossing Locations** of this ES [EN010142/APP/6.3]). These works would be separated from the asset by a 20m buffer within which no construction activities would take place. The works would also introduce visual intrusion and construction noise into the surviving rural landscape that forms the setting of the asset, providing evidence for its place within the agrarian landscape surrounding the historic medieval settlement of Rampton to the west, and to a lesser extent Cottam to the north.
- 8.9.58 The temporary introduction of the trenchless crossing and HV cable installation within the rural landscape of the asset would result in a temporary very low magnitude of impact as a result of changes to the setting of this high value asset. This change would result in a **minor adverse** effect, which is considered to be **not significant**.

Church of St Chad [NHLE 1309029] Grade I

- 8.9.59 The Grade I listed Church of St Chad is situated along Common Lane in the small medieval settlement of Harpswell. It is located approximately 200m to the north of the Order limits for the Principal Site and west of the temporary construction works associated with the roundabout at the Junction of A631 and B1398 Middle Street.
- 8.9.60 The church is a prominent building in the village. Dating to the 11th century, with later modifications, the building is constructed of limestone rubble with an Anglo-Saxon west facing squat tower. The church is associated with the non-designated asset [MLI50422] recorded as an early medieval possible holy spring, indicating that the site of the church has earlier origins with pre-Christian rituals associated with a number of springs along the limestone escarpment.
- 8.9.61 The church sits on elevated land with a sloping grass verge rising from the lane, which contributes strongly to its prominent setting in the village. The west tower of the church faces towards the former medieval village and the scheduled monument of Harpswell Hall [NHLE 1019068]. The former avenue that once linked the Hall with the church is distinguishable in the landscape, forming a strong element in the setting and character of the village.
- 8.9.62 Views from and to the church alter seasonally dependent upon the density of the tree foliage, with more intervisibility afforded westwards in the winter months across the former medieval landscape. Planned views along the historic avenue in the field opposite the church were designed due to the construction of the Hall, rather than forming part of the earlier designed intention of the church whose origins and position relate to the former medieval settlement.

- 8.9.63 **Chapter 13: Noise and Vibration** of this ES [EN010142/APP/6.1] identified the church as a non-residential noise receptor, NR2, which is within the 300m noise buffer for temporary construction activities as shown on **Figure 13-1** of this ES [EN010142/APP/6.3]. Temporary noise impacts were assessed as not significant.
- 8.9.64 The nearest fields to the church within the Principal Site are Fields 136 and 133 to the south which have been identified for biodiversity mitigation and enhancement. Intervisibility of the Scheme would be obscured by intervening mature tree planting in the longer-term, which has been further minimised with embedded mitigation locating the solar arrays further back from the village.
- 8.9.65 The land within the Order limits does not contribute to the setting of the church, which is defined by its location within the village, churchyard and historic relationship with the medieval settlement and Harpswell Hall. Noise intrusion from the temporary construction activities may impact upon the tranquil setting of the asset but will result in no real change in the ability to understand or appreciate the church.
- 8.9.66 The impact on the Church of St Chad [NHLE 1309029] as an asset of high value is assessed with a magnitude of impact of very low, resulting in a temporary **minor adverse (not significant)** effect.

Glentworth Hall [NHLE 1063348] Grade II* and Nos 1 to 4 Hall Cottages (former stable block at Glentworth Hall) [NHLE 1166094] Grade II

- 8.9.67 Glentworth Hall is a Grade II* listed property, situated approximately 500m to the east, south and west of the Order limits, to the north-west of Glentworth Conservation Area. The Grade II former stable block, now residential properties, is located to the north-east of the Hall.
- 8.9.68 The assets are scoped in for assessment due to their proximity to temporary construction activities and longer-term setting impacts associated with the construction of the Scheme.
- 8.9.69 The Hall is a prominent building in the countryside visible in key views, identified in the Neighbourhood Character Profile for Glentworth (Ref. 8-9), south-west from Middle Street and beyond, although partially obscured by planting and poplar trees.
- 8.9.70 The Hall was originally built around 1566 and is prominent in views from Middle Street at the top of the escarpment. A deer park [MLI50659] designed in the 16th century to accompany the Hall, becoming redundant in the mid-18th century when the Hall was reorientated, extends westwards into the Principal Site.
- 8.9.71 In the mid-18th century, the property underwent substantial alterations with a new Georgian façade facing eastwards, rather than westwards. The Hall is set within surrounding grounds, with associated outbuildings to the north including the Grade II listed 18th century former stable block (Nos 1 to 4 Hall Cottages) [NHLE 1166094]. The 18th century alterations included the redesign of the gardens and parkland of Glentworth Hall [MLI98355] by

James Paine, with landscaping of the lake and tree-belts facing east. The Hall is an early surviving example of an early post-medieval hall, with an 18th century front.

- 8.9.72 The Grade II listed former stable block, constructed around 1752 when the Hall underwent alterations, is an example of 18th and 19th century architecture in the local vernacular, deriving regional value from its architectural interest and historic relationship with the Hall with its setting within its grounds, which is partially bounded by mature tree planting to the rear, contributing to the value.
- 8.9.73 Glentworth Hall [**NHLE 1063348**] has national importance as a building of architectural and historical significance. Its setting includes its immediate grounds and gardens, with their reorientation towards the village of Glentworth. Whilst the façade of the property now faces eastwards, away from the Scheme, the wider setting of the Hall includes the earlier parkland to the west within the Principal Site. The western façade of the house also includes fenestration affording original planned views out over the earlier designed landscape.
- 8.9.74 The installation of solar infrastructure in the fields to the north and west of the hall faces away from the brick principal elevation of the Hall. The western elevation includes a large Venetian window providing views from the staircase facing towards the Principal Site. Field 124 within the Principal Site forms part of the historical setting of the Hall with the features evidencing the deer park which extended from the Hall westwards as part of the original late 16th century design by Sir Christopher Wray. Field 123 includes archaeological remains associated with the medieval deer park pale [**MLI54002**] associated with Glentworth Hall.
- 8.9.75 Embedded mitigation includes removal of solar panels in Field 122 closest to the assets with biodiversity enhancement, west of Northlands Cottages. Field 124, which includes SAS 22 associated with archaeological remains of the moated site [**MLI50291**] part of the historic deer park, has been designated an area of biodiversity enhancement with proposed new native woodland planting along its eastern boundary. This embedded mitigation took account of consultation with Historic England in August 2024, to reduce impacts upon the setting and planned views of Glentworth Hall by pushing the solar array further away from the heritage assets to avoid severance of the historic landscape preserving it as open countryside retaining its legibility and historic relationship with the Hall.
- 8.9.76 Field 123 includes the installation of solar panels, with SAS 18 excluded from Scheme infrastructure due to the archaeological remains within **AEC018**.
- 8.9.77 Both Glentworth Hall and the former stable block are outside the 300m noise buffer for temporary construction activities as shown on **Figure 13-1 [EN010142/APP/6.1]**, so will not be impacted by noise intrusion during the works within the Principal Site.
- 8.9.78 The introduction of the Scheme in the wider landscape would alter an element of the rural historic setting of the Hall, with visibility of the Scheme possible in planned views from what is now the rear of the property.

However, with the embedded mitigation design there would be limited visibility and minimisation of impacts upon the historic setting, with fields immediately surrounding the Hall retained in their current form and the designed landscape of the gardens unaltered. The temporary construction work and presence of the Scheme in views in the shorter-term following planting would have some impact upon the ability to understand and appreciate the Hall and its wider historic setting.

- 8.9.79 The Scheme would not alter the setting of the listed former stable block which is defined by its location within the grounds of the Hall and will not impact how it is understood or experienced.
- 8.9.80 In the longer-term as planting matures and screens the presence of the Scheme, the impact resulting from the construction works on Glentworth Hall [NHLE 1063348] as an asset of high value is assessed with a magnitude of impact of very low, resulting in a **minor adverse (not significant)** effect.
- 8.9.81 The impact on Nos 1 to 4 Hall Cottages (former stable block at Glentworth Hall) [NHLE 1166094] as an asset of medium value, is assessed with a magnitude of impact as no change resulting in a **neutral (not significant)** effect.

Corringham Windmill [NHLE 1359417] Grade II

- 8.9.82 This three-storey red brick structure is located approximately 200m to the north-west of the Principal Site, standing in a field visible to the north of the A631.
- 8.9.83 The asset is scoped in for assessment due to its proximity to impacts from temporary construction activities and longer-term setting impacts associated with the construction of the Scheme.
- 8.9.84 The windmill was built in the early 19th century and had ceased use by 1906. The 1885 OS Map depicts other buildings associated with the windmill located within a small field or garden, the boundaries being subsequently removed to form the larger field which now surrounds the structure. Little of the original features remain other than some vestiges of the floors and gear in the form of a pair of stones. After standing derelict it was converted to an owl house in 1993, with most of the openings blocked up. The remaining structure is 11.8m high, with the village of Corringham and is situated to the north-west of the windmill which historically included access along open fields and historic turnpike routes.
- 8.9.85 Its setting, which has been diminished by the loss of the mill buildings which contributed to its value and understanding, comprises the field in which it is located alongside the road and relationship to Corringham. Its value is derived from its architectural and historic interest, including its historic relationship with other dispersed windmills across the area. It is also noted in the Corringham Neighbourhood Plan (Ref. 8-10) as a local landmark in the landscape with views across the open countryside towards it from the village.
- 8.9.86 The asset is situated within the 300m noise study area for temporary construction activities shown on **Figure 13-1** of the ES [EN010142/APP/6.1]

due to temporary noise levels associated with the construction of the infrastructure within the Principal Site, which were assessed as not significant in **Chapter 13: Noise and Vibration** of the ES **[EN010142/APP/6.1]**.

- 8.9.87 Solar panels are proposed in Field 1 within the Order limits, the field closest to the listed structure with proposed native hedgerow planting along the edge of the Order limits along the road of Field 1. The presence of the Scheme would alter the existing views from the windmill structure, although mitigated by the hedgerow planting in the longer-term as it matures, and change the landscape to the south-east from agriculture to one that is semi-industrial with the introduction of solar panels and infrastructure. Views of the solar panels may be visible above the hedgerows between the fields and road towards the Scheme from the asset, as illustrated by VP20 taken east of the windmill (depicted on **Figure 12-12a** of the ES **[EN010142/APP/6.3]**).
- 8.9.88 Impacts from the temporary construction works and the longer-term presence of the Scheme within the structure's wider setting would entail slight changes in how the asset is experienced and appreciated but would have no appreciable erosion on the asset's value.
- 8.9.89 The impact on Corringham Windmill **[NHLE 1359417]** as an asset of medium value is as very low, resulting in a **negligible (not significant)** effect.

Group of Designated Assets in Marton

- 8.9.90 The village of Marton is located within 500m to the north of the Cable Route Corridor and approximately 100m north of an access route. The DBA (**Appendix 8-2** of this ES **[EN010142/APP/6.2]**) scoped in the following assets for assessment in this ES chapter:
- a. Church of St Margaret of Antioch **[NHLE 1359484]** Grade I and Cross **[NHLE 1146582]** Grade II;
 - b. 25, Gainsborough Road **[NHLE 1308917]** Grade II;
 - c. Thornleigh House **[NHLE 1359485]** Grade II;
 - d. Wapping Lane Farmhouse **[NHLE 1146611]** Grade II;
 - e. Berfoston Cottage **[NHLE 1064060]** Grade II;
 - f. Ingelby Arms Public house **[NHLE 1064057]** Grade II; and
 - g. Windmill **[NHLE 1064059]** Grade II.
- 8.9.91 These are scoped in for assessment due to:
- a. Their proximity to temporary construction activities associated with the construction of the buried cable route on their settings;
 - b. Proposed access highway works along the High Street; and
 - c. Construction noise impacts within 300m as shown on **Figure 13-1** of this ES **[EN010142/APP/6.3]**.
- 8.9.92 The nearest asset to the works is the Grade I listed Church of St Margaret of Antioch **[NHLE 1359484]** which includes the Grade II listed Cross **[NHLE 1146582]** in the churchyard. The appreciation of the church as the main

focus of the village is apparent when moving through the village along the High Street or westwards towards the river. The setting of the church beyond the churchyard and road is characterised by modern residential properties to the north and south. The immediate setting of the church and the cross contributes to their value as do the historic buildings within the village but moving away from the church to the south of the village this has been eroded by some modern residential development.

- 8.9.93 The settings of the other listed buildings are defined by their location within the village, including roadside positions, and by their historic relationship to the settlement of Marton. The listed assets are primarily screened from the temporary construction activities by intervening mature trees, buildings and hedgerows. The River Trent and the surrounding agricultural landscape immediately around the settlement and on its approach along historic routes contributes to the understanding of the historic rural connections of the settlement and the assets, such as Wapping Lane Farmhouse [NHLE 1146611], to the agricultural landscape. However, the later modern expansion of the village has diminished this connectivity with the wider landscape.
- 8.9.94 Outside the village to the west on the bank of the River Trent is a Grade II listed early 19th century windmill [NHLE 1064059], located within a small group of residential properties along Trent Port Road.
- 8.9.95 The village has been identified as a sensitive residential noise receptor, R18, in **Chapter 13: Noise and Vibration** of this ES [EN010142/APP/6.1], along with R19 for Trent Port Road. Temporary noise levels from cable laying activities were identified but assessed as not significant for these receptors.
- 8.9.96 During the temporary construction works, the setting of the assets in the village would experience some noise and possible visual intrusion that would have some limited impact on the ability to appreciate and understand the assets temporarily altering their setting.
- 8.9.97 The value of the Grade I listed Church of St Margaret of Antioch [NHLE 1359484] is high with the magnitude of impact assessed as very low, resulting in a **minor adverse (not significant)** effect.
- 8.9.98 The value of the other assets in the village are medium, with the magnitude of impact assessed as very low resulting in a **negligible adverse (not significant)** effect.
- 8.9.99 The impacts on the windmill [NHLE 1064059] as an asset of medium value is assessed as a magnitude of impact of no change, resulting in a **neutral (not significant)** effect.

14 High Street [NHLE 1064029] Grade II

- 8.9.100 This asset is located in the north-east of the village of Willingham by Stow and is nearest to the works proposed for the Cable Route Corridor, with other assets in the village scoped out for assessment in the DBA (**Appendix 8-2** of this ES [EN010142/APP/6.2]).
- 8.9.101 14, High Street [NHLE 1064029] is a Grade II listed property, described in the list description as a cottage with origins to the late 18th century of L plan,

with a 20th century extension to the rear. The property is aligned perpendicular to the High Street and is screened by other properties situated further to the east towards Fillingham Lane.

- 8.9.102 This asset is scoped in for assessment due to its proximity to temporary construction activities associated with the construction of the buried cable route from:
- a. Proposed access highway works along Fillingham Lane; and
 - b. Construction noise impacts within 300m as shown on **Figure 13-1** of this ES [**EN010142/APP/6.3**].
- 8.9.103 The property's setting is defined by its location within the rural settlement alongside the road and its relationship with the historic core, with its value derived from its architectural and historic interest.
- 8.9.104 The area identified for the cable route corridor and access route do not contribute to the setting of the listed building nor would they be visible in views to or from it. Noise impacts from temporary construction works associated with the buried cable or access route would not alter the ability to understand or appreciate the asset as an historic dwelling.
- 8.9.105 The temporary impacts on 14 High Street [**NHLE 1064029**] as an asset of medium value is assessed as a magnitude of impact of no change, resulting in a **neutral (not significant)** effect.

Manor Farmhouse [NHLE 1359486**] Grade II**

- 8.9.106 This asset is located on the western outskirts of the village of Stow, set back to the north of Stow Park Road. It has been scoped in for assessment due to its proximity to the temporary construction works associated with the Cable Route Corridor, with other assets in the village scoped out for assessment in the DBA (**Appendix 8-2** of this ES [**EN010142/APP/6.2**]).
- 8.9.107 Manor Farmhouse [**NHLE 1359486**] is a Grade II listed property, with origins dating to the first half of the 17th century described in the list description as an artisan mannerist house that underwent 19th century modifications, standing on a partially intact moated site.
- 8.9.108 This asset is scoped in for assessment due to its proximity to temporary construction activities associated with the construction of the buried cable route, in relation to:
- a. Proposed access highway works along Stow Park Road; and
 - b. construction noise impacts within 300m as shown on **Figure 13-1** of this ES [**EN010142/APP/6.3**].
- 8.9.109 The property's setting is defined by its location within the rural settlement of Stow and its relationship with the historic core of the village. Its setting includes a number of large modern farm outbuildings to the west which have diminished its setting, with mature tree planting and gardens to the east and south. Its value is derived from its architectural and historic interest.
- 8.9.110 The cable route corridor and access route does not contribute to the setting of the listed building nor would they be visible in views to or from it. Noise

impacts from temporary construction works associated with the buried cable or access route would not alter the ability to understand or appreciate the asset as an historic farmhouse.

8.9.111 The temporary impacts on Manor Farmhouse [NHLE 1359486] as an asset of medium value is assessed as a magnitude of impact with no change, resulting in a **neutral (not significant)** effect.

Stow Park Station [NHLE 1064058] Grade II and Signal Box [NHLE 1146606] Grade II

8.9.112 These two heritage assets are located opposite each other across the Great Northern railway line, just to the south of the level crossing on Till Bridge Lane [MLI50575], approximately 200m from the Order limits of the Cable Route Corridor.

8.9.113 These two assets are scoped in for assessment due to their proximity to temporary construction activities associated with the construction of the buried cable route on their settings, in relation to:

- a. Proposed access highway works along Till Bridge Lane; and
- b. construction noise impacts within 300m as shown on **Figure 13-1** of this ES [EN010142/APP/6.3].

8.9.114 The station building and signal box no longer serve their original purpose with the station closed in 1961, whilst the signal box ceased functioning in 2014 when the rail route was upgraded. The buildings derive their value from their architectural features and historic interest with their association with the Great Northern Railway. Their setting is informed by their position alongside the railway line and road, as well as their proximity to each other which contributes to their individual and group value.

8.9.115 Stow Park has been identified as a sensitive residential noise receptor, R29, in **Chapter 13: Noise and Vibration** of this ES [EN010142/APP/6.1], due to temporary noise levels from cable laying activities, including trenchless construction, but have been assessed as not significant.

8.9.116 The cable route corridor and access routes do not contribute to the setting of these two assets and temporary construction works associated with the buried cable or access routes would not alter the ability to understand or appreciate them as part of railway infrastructure.

8.9.117 The temporary impacts on Stow Park Station [NHLE 1064058] and the Signal Box [NHLE 1146606] as assets of medium value are assessed as a magnitude of impact having no change, resulting in a **neutral (not significant)** effect.

Church of Holy Trinity [NHLE 1212380] Grade II and Font [NHLE 1370089] Grade II

8.9.118 These two assets are encircled by the Order limits for the Cable Route Corridor, though not within the Scheme. The heritage assets are located in the village of Cottam, with an access route utilising the road through the

village to their east and the Cable Route Corridor further away to their north and west.

- 8.9.119 These two assets are scoped in for assessment due to their proximity to temporary construction activities associated with the construction of the buried cable route on their settings, in relation to:
- a. Proposed access highway works along Town Street; and
 - b. Construction noise impacts within 300m as shown on **Figure 13-1** of this ES [**EN010142/APP/6.3**].
- 8.9.120 Cottam village has been identified as a sensitive residential noise receptor, R20, in **Chapter 13: Noise and Vibration** of this ES [**EN010142/APP/6.1**], due to temporary noise levels from cable laying activities but have been assessed as not significant.
- 8.9.121 The church has origins dating to the 12th century, with later restorations in the late 19th century including a small bellcote on the western gable. The Font is located half a metre east of the church's south porch and dates to the 14th century. The church is located on land west of the rear of private properties, limiting access, and the building is derelict and partly in ruins. Their immediate setting within the churchyard contributes to their significance.
- 8.9.122 The Scheme does not form part of the setting of these assets and makes no contribution to their value. Their location is obscured by properties to their east, screening them from the access route and proposed highway works along Town Street. There are no planned or designed views towards the Scheme from the assets and any views of temporary works would be incidental, largely screened by trees and vegetation to the west.
- 8.9.123 Noise intrusion from the temporary works have been assessed as not significant. Whilst these may have some limited temporary impact, they would not detract from the ability to understand or appreciate the assets nor detract from their value.
- 8.9.124 The temporary impacts upon the Church of Holy Trinity [**NHLE 1212380**] and Font [**NHLE 1370089**] as assets of medium value are assessed as a magnitude of impact having no change, resulting in a **neutral (not significant)** effect.

Non-designated Heritage Assets

Built Heritage

Historic Farmsteads

- 8.9.125 The following non-designated historic farmsteads have been scoped in for assessment due to their proximity to the Order limits and potential for their settings and significance to be impacted by the Scheme. In accordance with the NPS, a proportionate approach has been taken to those assets being scoped in. This includes consideration of the significance of the assets and the extent of loss of physical fabric and/ or erosion of setting.

8.9.126 Farmsteads outside the Order limits, not within buffers or setbacks, were scoped out within the DBA (**Appendix 8-2** of this ES [**EN010142/APP/6.2**]) where these assets have experienced more than 50% loss of historic fabric and erosion of setting due to the addition of modern outbuildings or loss of surrounding farmland.

8.9.127 Some farmsteads are surrounded by the Principal Site but outside the Order limits. Whilst they would not be physically impacted by works or infrastructure associated with the Scheme, they may still incur impacts which alter their setting and these have been scoped in for assessment, regardless of loss of historic fabric, due to their proximity to the Scheme.

Harpswell Low Farm [MLI118024/MLI97809]

8.9.128 Harpswell Low Farm is located adjacent to Field 55, off the A631 Harpswell Lane, to the north of the Principal Site outside of the Order limits in an embedded mitigation setback buffer.

8.9.129 The farm is recorded on the LHER with two recorded designations, having low value which is derived from its architectural and historical interest as a 19th century farmstead that is largely intact. It is described as a partially extant 19th century farmstead with a regular courtyard and linked working buildings to all four sides of the yard. The farmhouse is detached from the main working farm complex which has experienced a partial loss (less than 50%) of traditional buildings. Large modern sheds are located to the north and west of the farmhouse.

8.9.130 Its setting includes its gardens which are surrounded by mature tree planting, largely screening extended views from or to the asset. The surrounding agrarian landscape and associated farm buildings contribute to the asset's setting and historic function, as does its historic relationship with similar dispersed historic farmsteads in the area.

8.9.131 Field 55 is proposed as a biodiversity enhancement zone with no solar infrastructure; however, Field 50 to the west will contain solar panels and Solar Stations/BESS. The Indicative Principal Site Layout Plan (**Figure 3-1** of this ES [**EN010142/APP/6.3**]) further illustrates that the proposed solar farm control centre may be located a short distance to the south of the farm. The small lane to the west of the farm will also function as the Principal Site Access 2 (**Figure 3-7** of this ES [**EN010142/APP/6.3**]).

8.9.132 The farm has been identified as a sensitive residential noise receptor, R8, in **Chapter 13: Noise and Vibration** of this ES [**EN010142/APP/6.1**]. Temporary daytime noise levels from solar panel, Solar Station and substation construction and cable laying activities were identified. Temporary noise levels were assessed as not significant.

8.9.133 The asset's setting, during temporary active construction and in the longer term, would be altered from an agricultural landscape associated with the farm and its use to one that is semi-industrial with the introduction of solar panels and infrastructure. During the temporary construction works, the asset's setting would be affected by the noise and visual intrusion but would have limited impact affecting the ability to appreciate and understand the asset, which derives its value from its architectural and historic interests.

- 8.9.134 The asset's setting would be altered but this would have minimal effect on the ability to understand the asset's heritage interests, with existing field boundaries and field patterns retained, with the presence of large modern farm buildings having already partially diminished the setting of the asset.
- 8.9.135 The value of Harpswell Low Farm [MLI118024/MLI97809] is low with the magnitude of impact assessed as low, resulting in a **negligible adverse (not significant)** effect.

Harpswell Grange [MLI118025]

- 8.9.136 Harpswell Grange is located adjacent to Fields 63 and 86, off the A631 Harpswell Lane, in the north of the Principal Site outside of the Order limits in an embedded mitigation setback buffer.
- 8.9.137 The farm is recorded on the LHER, described as a partially extant 19th century farmstead with a regular courtyard, with the farmhouse detached from the main working complex which has experienced a significant loss (greater than 50%) of traditional buildings. Large modern sheds are located to the west of the farmhouse.
- 8.9.138 Its setting includes its gardens and orchard with mature tree planting. The surrounding agrarian landscape and associated farm buildings contribute to the asset's setting and historic function, as does its historic relationship with similar dispersed historic farmsteads in the area.
- 8.9.139 Fields 63 and 86 are excluded from the Order limits, as part of embedded mitigation preserving the historic footprint of land immediately associated with the farmstead as shown on OS map 1885.
- 8.9.140 Other surrounding fields to the west, south and east, will contain solar panels with Field 62 and Field 87 each containing identified SAS locations. Field 87 includes two SAS locations, SAS 12 and SAS 13, where no development work will be undertaken in order to preserve the archaeological remains which relate to a large Romano-British settlement complex [AEC012 and AEC013], as shown on the Indicative Principal Site Layout Plan (**Figure 3-1** of this ES [EN010142/APP/6.3]).
- 8.9.141 The small lane to the north of the farm will also function as the Principal Site Access 3 (**Figure 3-7** of this ES [EN010142/APP/6.3]).
- 8.9.142 The farm has been identified as a sensitive residential noise receptor, R9, in **Chapter 13: Noise and Vibration** of this ES [EN010142/APP/6.1]. Temporary daytime noise levels from solar panel, Solar Station and substation construction and cable laying activities were identified but assessed as not significant.
- 8.9.143 The asset's setting, during temporary active construction and in the longer term as a result of the construction installations, would largely be changed from an agricultural landscape associated with the farm and its use to one that is semi-industrial with the introduction of solar panels and infrastructure. The presence of the two SASs in Field 87 would minimise visual impacts of the Scheme to the south-east but would alter the character of the setting's historic use. The temporary construction works would alter the asset's setting

due to the noise and visual intrusion affecting the ability to appreciate and understand the asset.

8.9.144 The longer-term construction impacts on the setting of the asset would be altered but would have limited effect on the ability to understand or appreciate the asset's heritage value which is derived from its architectural and historic interest. The presence of modern farm buildings has also eroded the setting of the asset, which has experienced greater than 50% loss of historic fabric.

8.9.145 The value of Harpswell Grange [**MLI118025**] is very low with the magnitude of impact assessed as low, resulting in a **negligible adverse (not significant)** effect.

Hermitage Low Farm [MLI118028]

8.9.146 Hermitage Low Farm is located south of Common Lane, in an embedded mitigation setback buffer outside the Order limits of the Principal Site, east of Field 90, west of Field 103 and south of Field 101.

8.9.147 The farm is recorded on the LHER, described as a partially extant 19th century farmstead with regular courtyard of 'U'-plan. The farmhouse is detached from the main working complex. There has been a partial loss (less than 50%) of traditional buildings. Large modern sheds are located to the west and south of the farmhouse.

8.9.148 The setting of the farmhouse includes its garden bounded to the north by mature tree planting and the other nearby modern farm buildings. The surrounding agrarian landscape contribute to the asset's setting and historic function, as does its relationship with similar dispersed historic farmsteads in the area.

8.9.149 Fields surrounding the asset will contain solar panels, but with the nearest field to the east, Field 103, identified as an area of biodiversity enhancement along with a narrow corridor to the west between the asset and Field 90, with a BESS located in Field 78 to the east. The setback buffer includes the field surrounding the farmstead along with the small woodland to the south, as shown on the Indicative Principal Site Layout Plan (**Figure 3-1** of this ES [**EN010142/APP/6.3**]).

8.9.150 The farm has been identified as a sensitive residential noise receptor, R10, in in **Chapter 13: Noise and Vibration** of this ES [**EN010142/APP/6.1**]. Temporary daytime noise levels from solar panel, Solar Station and substation construction and cable laying activities were identified but assessed as not significant.

8.9.151 The asset's setting, during temporary active construction and in the longer term as a result of the construction installations, including the main cable route corridor through Field 103, would be changed from an agricultural landscape associated with the farm and its use to one that is semi-industrial with the introduction of solar panels and infrastructure. The fenestration of the farmhouse faces west towards the farm outbuildings and east towards Field 103 so views of the temporary works would be partially visible, with the asset's setting altered by the noise and visual intrusion from the temporary

construction works affecting the ability to appreciate and understand the asset.

8.9.152 The longer-term impact of the construction would result in alteration to the character of the wider setting of the asset, but the immediate fields with the most sensitivity to change are outside the Order limits, whilst the closest field within the Order limits will be subject to biodiversity enhancement. Overall, this would affect the appreciation of the asset's heritage value which is largely derived from its architectural and historic interest. The immediate setting which has already been partially diminished by the presence of large modern farm buildings will remain intact.

8.9.153 The value of Heritage Low Farm [MLI118028] is low with the magnitude of impact assessed as low, resulting in a **negligible adverse (not significant)** effect.

Billyards Farm (Low Farm) [MLI118029]

8.9.154 Billyards Farm is located south of Common Lane, in an embedded mitigation setback buffer outside the Order limits, east of Field 54 and south of Fields 60 and 68.

8.9.155 The farm is recorded on the LHER as a 19th century farmstead with a regular courtyard of 'E'-plan and farmhouse detached from the main working complex. The farmhouse is the only surviving historic structure. Large modern sheds are located to the immediate north of the farmhouse where previous historic farm buildings once stood.

8.9.156 The setting of the farmhouse includes its gardens, bounded by mature tree planting on the garden's eastern boundary. The surrounding agrarian landscape and associated farm buildings contribute to the asset's setting and historic function, as does its historic relationship with similar dispersed historic farmsteads in the area.

8.9.157 Fields surrounding the asset will contain solar panels with a BESS/Solar Station located in Field 78 to the east. The setback buffer includes two fields to the south of the farmhouse, retaining the historic field pattern associated with the farmhouse shown on OS map 1885. An area of proposed new native woodland planting is set out in the **Framework LEMP [EN010142/APP/7.17]** located to the north-west adjoining the access to the farmstead off Common Lane, which will partially screen views westwards from the asset towards the Scheme.

8.9.158 Emergency Access 1 is shown on **Figure 3-7** of this ES **[EN010142/APP/6.3]** to the north-east of the farm off Common Lane.

8.9.159 The farm has been identified as a sensitive residential noise receptor, R11, in **Chapter 13: Noise and Vibration** of this ES **[EN010142/APP/6.1]**. Temporary daytime noise levels from solar panel, Solar Station and substation construction and cable laying activities were identified. These were assessed as not significant.

8.9.160 The asset's setting, during temporary active construction and in the longer term as a result of the construction, would be altered from an agricultural landscape associated with the farm and its use, to one that is semi-industrial

with the introduction of solar panels and infrastructure. During the temporary construction works, the asset's setting would be affected by the noise and visual intrusion but this would have limited impact affecting the ability to appreciate and understand the asset, which derives its value from its architectural and historic interests.

- 8.9.161 The asset's setting would be altered but the two fields to the south with the most sensitivity to visual intrusion and setting are outside the Order limits and would remain intact. This would have minimal effect on the ability to understand the asset's heritage interests, with the existing field boundaries and field pattern retained, with the presence of large modern farm buildings having already diminished the setting of the asset.
- 8.9.162 The value of Billyards Farm (Low Farm) [MLI118029] is low with the magnitude of impact assessed as very low, resulting in a **negligible adverse (not significant)** effect.

Glentworth Grange [MLI118040]

- 8.9.163 Glentworth Grange is located adjacent to Field 94 to the north off Kexby Road in the south-east of the Principal Site, outside of the Order limits in an embedded mitigation setback buffer.
- 8.9.164 The farm is recorded on the LHER, described as an extant 19th century farmstead with a regular courtyard and multiple regular yards. The farmhouse is detached from the main working complex, located within a loose farmstead cluster. Large modern sheds are located to the west of the farmstead.
- 8.9.165 The setting of the asset includes its gardens which extend eastwards with mature tree planting and the other buildings which have been modernised but retain the historic plan form of the farmyards. Two other semi-detached properties to the east are included in the setback buffer and are illustrated on the OS map of 1885 indicating they may have a historic relationship with the farmstead, forming part of its setting. The surrounding agrarian landscape and associated farm buildings contribute to the asset's setting and historic function, as does its historic relationship with similar dispersed historic farmsteads in the area.
- 8.9.166 The asset is surrounded by proposed embedded mitigation including biodiversity zones and new native woodland planting to the north stretching eastwards in Fields 95, 115 and 124. There is also an identified SAS to the north (SAS 19) which relates to an Iron Age/Romano-British farmstead and another SAS (SAS 22) further to the east, the moated site [MLI50291], where no Scheme infrastructure will be located. The **Framework LEMP [EN010142/APP/7.17]** further sets out that to the south of Glentworth Grange, fields will also be proposed biodiversity zones with Field 116 containing two more SASs, SAS 20 opposite the farmstead and SAS 21 further south, both relating to Iron Age/Romano-British enclosure settlements.
- 8.9.167 The farm has been identified as a sensitive residential noise receptor, R14, in in **Chapter 13: Noise and Vibration** of this ES [EN010142/APP/6.1]. Temporary daytime noise levels from solar panel, Solar Station and

substation construction and cable laying activities were identified. Temporary levels were assessed as not significant.

8.9.168 The asset's setting, during temporary active construction and in the longer term as a result of the construction, would be changed from an agricultural landscape associated with the farm to one that in the immediate fields would become biodiversity zones. This would alter the setting of the asset but have only a minimal effect on the ability to understand its heritage interests, with the existing field boundaries and field pattern retained. The presence of modern farm buildings to the west has also eroded the setting of the asset to a minor extent. Noise associated with the Scheme would also impact upon the setting and how the asset is experienced.

8.9.169 The value of Glentworth Grange [MLI118040] is low with the magnitude of impact assessed as very low, resulting in a **negligible adverse (not significant)** effect.

Manor Farm, Heapham [MLI118062]

8.9.170 Manor Farm is located just north of Common Lane, south-west of Harpswell Wood, in an embedded mitigation setback buffer outside of the Order limits.

8.9.171 The farm is recorded on the LHER as an extant 19th century farmstead, with a loose courtyard arrangement with three sides of the courtyard formed by working agricultural buildings. The farmhouse is detached from the main working complex which has experienced significant loss (greater than 50%) of traditional buildings. Large modern sheds are located to the west of the farmhouse.

8.9.172 The setting of the farmhouse includes its gardens, bounded by some mature tree planting on the garden's eastern boundary. The surrounding agrarian landscape and associated farm buildings contribute to the asset's setting and historic function, as does its historic relationship with similar dispersed historic farmsteads along Common Lane.

8.9.173 Fields surrounding the asset will contain solar panels with part of Field 47 to the north-east including SAS 6, located to the immediate east of the farm track which runs north to a modern farm building, included within the setback outside the Order limits. A BESS and Solar Station as set out in the **Framework LEMP [EN010142/APP/7.17]** are located in Field 78 to the east. Views of solar panels from the farmhouse southwards would be screened by enhanced proposed new woodland planting as set out in the **Framework LEMP [EN010142/APP/7.17]**.

8.9.174 Internal Site Access 3 is shown on **Figure 3-7** of this ES **[EN010142/APP/6.3]** to the east of the farm off Common Lane utilising the trackway.

8.9.175 The farm has been identified as a sensitive residential noise receptor, R12, in **Chapter 13: Noise and Vibration** of this ES **[EN010142/APP/6.1]**. Temporary daytime noise levels from solar panels, Solar Station and substation construction and cable laying activities were identified. These were assessed as **not significant**.

8.9.176 The asset's setting, during temporary active construction and in the longer term as a result of the construction, would be changed from an agricultural landscape associated with the farm and its use to one that is semi-industrial with the introduction of solar panels and infrastructure. Although fields to the immediate north are included within the setback buffer, the setting of the asset would be altered affecting the ability to understand its heritage interests although the existing field boundaries and field pattern would be retained and reinforced with planting. The presence of large modern farm buildings has also eroded the setting of the asset and more than 50% of the historic fabric of the traditional buildings has been lost, further diminishing its value.

8.9.177 The value of Manor Farm [MLI118062] is very low with the magnitude of impact assessed as low, resulting in a **negligible adverse (not significant)** effect.

Heapham Cliff, Heapham [MLI118063]

8.9.178 Heapham Cliff is located just off Common Lane, west of Manor Farm, within embedded mitigation setback buffers outside of the Order limits.

8.9.179 The farm is recorded on the LHER as an extant 19th century farmstead with a regular courtyard of 'U'-plan. The farmhouse is detached from the main working complex, with large modern sheds located to the immediate south and south-east of the courtyard. The courtyard buildings have been converted into residential use.

8.9.180 The setting of the farmhouse includes its gardens, bounded by some mature tree planting. The wider farmstead includes various modern farm outbuildings bounded by mature tree planting around its boundaries. The setting includes the courtyard complex and farm buildings to the south, which have group value to each other contributing to the asset's value and historic function, as does the surrounding agrarian landscape and the historic relationship with similar dispersed historic farmsteads along Common Lane.

8.9.181 Field 41 to the north and Fields 139 and 140 to the south will contain solar panels. Part of Field 139 to the north adjoining the southern edge of Common Lane includes SAS 5 comprising an Iron Age/Romano-British enclosure complex (**AEC005**). Proposed new native woodland planting is set out in the **Framework LEMP [EN010142/APP/7.17]** extending westwards and south-east around the courtyard complex to screen it from the solar panels.

8.9.182 The farm has been identified as a sensitive residential noise receptor, R12, in **Chapter 13: Noise and Vibration** of this ES [EN010142/APP/6.1]. Temporary daytime noise levels from solar panel, Solar Station and substation construction and cable laying activities were identified. These were assessed as not significant.

8.9.183 The asset's setting, during temporary active construction and in the longer term as a result of the construction, would be changed from an agricultural landscape associated with the farm and its historic use to one that is semi-industrial with the introduction of solar panels and infrastructure. This would

affect the ability to understand its heritage interests although the existing field boundaries and field pattern would be retained. The presence of large modern farm buildings has also diminished the setting of the asset and its value, with the traditional farm buildings modernised.

8.9.184 The value of Heapham Cliff [MLI118063] is low with the magnitude of impact assessed as low, resulting in a **negligible adverse (not significant)** effect.

Grange Farm (Heapham grange) [MLI118064]

8.9.185 Grange Farm is located just south of Common Lane, to the west of the Principal Site, in an embedded mitigation setback buffer outside the Order limits which extends to include four fields to the west.

8.9.186 The farm is recorded on the LHER, described as an extant 19th century farmstead with regular courtyard and L-plan range plus detached buildings to the third side of the yard. The farmhouse is attached to a range of working buildings. There has been significant loss (greater than 50%) of traditional buildings. Large modern sheds are located to the east of the asset.

8.9.187 The setting of the farmhouse includes its garden and nearby farm buildings. The surrounding agrarian landscape and associated farm buildings contribute to the asset's setting and historic function, as does its historic relationship with similar dispersed historic farmsteads along Common Lane.

8.9.188 Field 35 to the south of the asset will form a proposed biodiversity zone. Solar panels will be located in Fields 39 and 37 across Common Lane to the north. Views of the solar panels in Field 39 will be screened by proposed new native woodland planting as set out in the **Framework LEMP [EN010142/APP/7.17]**.

8.9.189 The farm has been identified as a sensitive residential noise receptor, R13, in in **Chapter 13: Noise and Vibration** of this ES [EN010142/APP/6.1]. Temporary daytime noise levels from solar panel, Solar Station and substation construction and cable laying activities were identified. These were assessed as not significant.

8.9.190 The asset's setting, during temporary active construction and in the longer term as a result of the construction, would be changed from an agricultural landscape associated with the farm and its use to one that includes a biodiversity zone and semi-industrial landscape with the introduction of solar panels and infrastructure. Although the setting of the asset would be altered, this would only have a limited effect on the ability to understand its heritage interests, with the existing field boundaries and field pattern retained. The presence of large modern farm buildings has also eroded the setting of the asset and more than 50% of the historic fabric of the traditional buildings has been lost further diminishing its value.

8.9.191 The value of Grange Farm [MLI118064] is very low with the magnitude of impact assessed as very low, resulting in a **negligible adverse (not significant)** effect.

South View, Heaptham [MLI118065]

- 8.9.192 South View is located just north of Common Lane, to the west of the Principal Site, in an embedded mitigation setback buffer outside the Order limits which extends to include the field west of the farm with medieval ridge and furrow [MLI54253].
- 8.9.193 The farm is recorded on the LHER as a partially extant 19th century farmstead with regular courtyard of u plan. The farmhouse is detached from the main working complex and has experienced partial loss (less than 50%) of traditional buildings. Large modern sheds are located to the north and east of the asset.
- 8.9.194 The setting of the farmhouse includes its garden, with mature tree planting to the west, and the nearby farm buildings. The surrounding agrarian landscape and associated farm buildings contribute to the asset's setting and historic function, as does its historic relationship with similar dispersed historic farmsteads along Common Lane.
- 8.9.195 Fields 32 and 31 to the north of the asset will comprise proposed biodiversity zones, whilst Fields 36 and 37 to the north and east will have solar panels. Field 31 includes SAS 4 which comprises remains of a Romano-British settlement [AEC004]. Views southwards are towards the fields associated with Grange Farm [MLI118064] which are within an embedded offset buffer with extended views screened by proposed new native woodland planting as set out in the **Framework LEMP [EN010142/APP/7.17]**.
- 8.9.196 The farm has been identified as a sensitive residential noise receptor, R13, in in **Chapter 13: Noise and Vibration** of this ES [EN010142/APP/6.1]. Temporary daytime noise levels from solar panel, Solar Station and substation construction and cable laying activities were identified. These were assessed as not significant.
- 8.9.197 The asset's setting, during temporary active construction and in the longer term as a result of the construction, would be changed from an agricultural landscape associated with the farm and its use to one that includes biodiversity zones and a semi-industrial landscape with the introduction of solar panels and infrastructure. Although the setting of the asset would be altered, this would only have a limited effect on the ability to understand its heritage interests, with existing field boundaries and field pattern retained. The presence of large modern farm buildings has also eroded the setting of the asset.
- 8.9.198 The value of Grange Farm [MLI118064] is low with the magnitude of impact assessed as very low, resulting in a **negligible adverse (not significant)** effect.

Spitals Farm [MLI118038]

- 8.9.199 Spitals Farm is located just outside the Order limits, west of Glentworth Grange [MLI118040] and north of Kexby Road. It is shown as Orchard House on Indicative Principal Site Layout Plan (**Figure 3-1** of this ES [EN010142/APP/6.3]).

8.9.200 The farm is recorded on the LHER as an extant 19th century farmstead with a regular courtyard of 'U'-plan. The farmhouse is detached from the main working complex located within a loose farmstead cluster.

8.9.201 The setting of the farmhouse includes its garden, with mature tree planting, and the nearby historic farm buildings. The surrounding agrarian landscape and associated farm buildings contribute to the asset's setting and historic function, as does its historic relationship with similar dispersed nearby historic farmsteads.

8.9.202 Fields 94 and 95 to the east of the asset within the Order limits are proposed for biodiversity zones, as are Fields 74, 75 and 76 to the west, with any views of solar panels to the north-east screened by proposed new native woodland planting, as set out in the **Framework LEMP [EN010142/APP/7.17]**.

8.9.203 The farm has been identified as a sensitive residential noise receptor, R14, in in **Chapter 13: Noise and Vibration** of this ES **[EN010142/APP/6.1]**. Temporary daytime noise levels from solar panel, Solar Station and substation construction and cable laying activities were identified but assessed as not significant.

8.9.204 The asset's setting, during temporary active construction and in the longer term as a result of the construction, would be changed from an agricultural landscape associated with the historic farmstead to one that in the surrounding fields would become biodiversity zones. This would alter the setting of the asset but have only a limited effect on the ability to understand its heritage interests, with the existing field boundaries and field pattern retained.

8.9.205 The value of Spitals Farm **[MLI118038]** is low with the magnitude of impact assessed as very low, resulting in a **negligible adverse (not significant)** effect.

Low Farm [MLI118039]

8.9.206 Low Farm is located a short distance of Spitals Farm **[MLI118038]** accessed by a lane, just outside the Order limits, north of Kexby Road shown on Indicative Principal Site Layout Plan (**Figure 3-1** of this ES **[EN010142/APP/6.3]**).

8.9.207 The farm is recorded on the LHER, described as a partially extant 19th century farmstead with a regular courtyard and linked working buildings to all four sides of the yard, with the farmhouse attached to a range of working buildings. There has been a partial loss (less than 50%) of traditional buildings. Located within a loose farmstead cluster. A large modern shed is located to the north-east of the asset.

8.9.208 The setting of the farmhouse includes its garden with mature tree planting to the south and the historic farm buildings. The surrounding agrarian landscape and associated farm buildings contribute to the asset's setting and historic function, as does its historic relationship with similar dispersed nearby historic farmsteads.

8.9.209 Fields 94 and 95 to the east of the asset within the Order limits are proposed for biodiversity zones, as are Fields 74, 75 and 76 to the west, with any views of solar panels to the north-east screened by proposed new native woodland planting, as set out in the **Framework LEMP [EN010142/APP/7.17]**.

8.9.210 The farm has been identified as a sensitive residential noise receptor, R14, in in **Chapter 13: Noise and Vibration** of this ES **[EN010142/APP/6.1]**. Temporary daytime noise levels from solar panel, Solar Station and substation construction and cable laying activities were identified. Temporary levels were assessed as not significant.

8.9.211 The asset's setting, during temporary active construction and in the longer term as a result of the construction, would be changed from an agricultural landscape associated with the historic farmstead to one that in the surrounding fields would become biodiversity zones. This would alter the setting of the asset but have only a limited effect on the ability to understand its heritage interests, with the existing field boundaries and field pattern retained.

8.9.212 The value of Low Farm **[MLI118039]** is low with the magnitude of impact assessed as very low, resulting in a **negligible adverse (not significant)** effect.

Springthorpe Grange [MLI118053]

8.9.213 Springthorpe Grange is located on School Lane east of Springthorpe, just outside the Order limits to the north-west of the Principal Site near Grange Cottages.

8.9.214 The farm is recorded on the LHER as a partially extant 19th century farmstead, with regular courtyard and multiple regular yards. The farmhouse is detached from the main working complex. There has been a partial loss (less than 50%) of traditional buildings. Large modern sheds are located to the side of the site.

8.9.215 The setting of the farmhouse includes its garden with some mature tree planting to the east and the historic farm buildings. The surrounding agrarian landscape and associated farm buildings contribute to the asset's setting and historic function, as does its historic relationship with similar dispersed nearby historic farmsteads.

8.9.216 Fields to the north, east and south of the asset within the Order limits are proposed for installation of solar panels as well as the main cable route. Biodiversity zones are proposed in the Fields 10, 22, 23 and 16 along the edges nearest to the asset with proposed new native woodland planting to screen views of the panels, as set out in the **Framework LEMP [EN010142/APP/7.17]**. In Field 16 to the south and in the field west of the asset, medieval earthwork ridge and furrow has been recorded **[MLI54272]** and **[AEC003]**.

8.9.217 The farm has been identified as a sensitive residential noise receptor, R7, in in **Chapter 13: Noise and Vibration** of this ES **[EN010142/APP/6.1]**. Temporary daytime noise levels from solar panel, Solar Station and

substation construction and cable laying activities were identified. Temporary levels were assessed as **not significant**.

8.9.218 The asset's setting, during temporary active construction and in the longer term as a result of the construction, would partially be altered from an agricultural landscape associated with the historic farmstead to one that incorporates biodiversity zones and a semi-industrial landscape with the introduction of solar panels and infrastructure. This would alter the setting of the asset but have only a limited effect on the ability to understand its heritage interests, with the retention of agricultural fields to the west and existing field boundaries and field pattern retained.

8.9.219 The value of Springthorpe Grange [MLI118053] is low with the magnitude of impact assessed as low, resulting in a **negligible adverse (not significant)** effect.

Magin Moor Farm [MLI117378]

8.9.220 Magin Moor Farm is located directly north off the A631 Harpswell Lane overlooking the Principal Site to the south, outside of the Order limits.

8.9.221 The farm is recorded on the LHER and described as a partially extant 19th century farmstead comprising a regular courtyard of Z plan. The farmhouse is attached to a range of working buildings. There has been a partial loss (less than 50%) of traditional buildings.

8.9.222 The setting of the farmhouse includes its garden to the north bounded by mature tree planting. The surrounding agrarian landscape contributes to the asset's setting and historic function, as does its historic relationship with similar dispersed nearby historic farmsteads.

8.9.223 Fields to the south within the Order limits are proposed for installation of solar panels as well as the main cable route and a BESS/Solar Station in the field opposite. Principal Site Access 1 is located to the west down School Lane, with a site construction compound proposed off the main road.

8.9.224 The farm has been identified as a sensitive residential noise receptor, R2, in **Chapter 13: Noise and Vibration** of this ES [EN010142/APP/6.1]. Temporary daytime noise levels from solar panel, Solar Station and substation construction and cable laying activities were identified. Temporary levels were assessed as not significant.

8.9.225 The asset's setting, during temporary active construction and in the longer term as a result of the construction, would partially be altered from an agricultural landscape associated with the historic farmstead to one that incorporates a semi-industrial landscape with the introduction of solar panels and infrastructure which would be visible to the south. This would alter the setting of the asset but have only a limited effect on the ability to understand its heritage interests, with the retention of agricultural fields surrounding the property other than to the south and with existing field boundaries and field patterns retained.

8.9.226 The value of Magin Moor Farm [MLI117378] is low with the magnitude of impact assessed as low, resulting in a **negligible adverse (not significant)** effect.

Hemswell Grange [MLI118023]

- 8.9.227 Hemswell Grange is located directly north off the A631 Harpswell Lane to the north of the Principal Site, outside the Order limits.
- 8.9.228 The farm is recorded on the LHER, as a 19th century farmstead with a regular courtyard and multiple regular yards. The farmhouse is detached from the main working complex and is the only surviving historic structure. Some modern sheds are located on the site.
- 8.9.229 The setting of the farmhouse includes its garden to the north bounded by mature tree planting including the southern boundary fronting the road and facing the Principal Site. The field to the north-west includes part of a medieval ridge and furrow field system surviving as earthworks [MLI54254] which contributes to the asset's wider setting. The surrounding agrarian landscape contributes to the asset's setting and historic function, as does its historic relationship with similar dispersed nearby historic farmsteads.
- 8.9.230 Fields to the south within the Order limits are proposed for installation of solar panels and other associated infrastructure. Extension to the biodiversity enhancement area (BZ6) into Field 61 south of Hemswell Grange is proposed, to create a wider buffer with tree planting extended along the northern edge of the biodiversity area to limit residential view of panels as set out in the **Framework LEMP [EN010142/APP/7.17]**.
- 8.9.231 The farm has been identified as a sensitive residential noise receptor, R3, in in **Chapter 13: Noise and Vibration** of this ES [EN010142/APP/6.1]. Temporary daytime noise levels from solar panel, substation and Solar Station construction and cable laying activities were identified. Temporary levels were assessed as not significant.
- 8.9.232 The asset's setting, during temporary active construction and in the longer term as a result of the Scheme, would partially be altered from an agricultural landscape associated with the historic farmstead to one that incorporates a semi-industrial landscape with the introduction of solar panels and infrastructure which would be visible to the south. This would alter the setting of the asset but have only a limited effect on the ability to understand its heritage interests, with the retention of agricultural fields surrounding the property other than to the south and with existing field boundaries and field patterns retained.
- 8.9.233 The value of Hemswell Grange [MLI118023] is low with the magnitude of impact assessed as low, resulting in a **negligible adverse (not significant)** effect.

Church Farm [MLI118026]

- 8.9.234 Church Farm is located just outside the Order limits in the village of Harpswell, south of the Church of St Chad [NHLE 1309029].
- 8.9.235 The farm is recorded on the LHER as a redeveloped 19th century farmstead with a regular courtyard of z plan, detached from the main working complex. Large modern sheds are located across the lane from the farm to the north.

8.9.236 The setting of the farmhouse includes its garden with mature tree planting bounding it to the north and south, with a wide expanse of lawn in front of the property which looks out towards Harpswell Hall [**NHLE 101906**]. The asset's prominent location within the village, along with the wider agrarian landscape, contributes to the asset's setting and historic function, as does its relationship with similar dispersed nearby historic farmsteads.

8.9.237 The closest fields to Church Farm within the Principal Site are proposed biodiversity zones, with the Order limits set back from the village as part of embedded mitigation to minimise impacts on the village. Fields with solar panels include screening with proposed new native woodland planting to further reduce any intervisibility, as set out in the **Framework LEMP [EN010142/APP/7.17]**.

8.9.238 The farm has been identified as a sensitive residential noise receptor, R5 for Harpswell Village, in **Chapter 13: Noise and Vibration** of this ES [**EN010142/APP/6.1**]. Temporary daytime noise levels from solar panel, Solar Station and substation construction and cable laying activities were identified. Temporary levels were assessed as not significant.

8.9.239 The asset's setting during temporary active construction would be altered by noise and possible limited visual intrusion affecting the way in which the asset is experienced and appreciated.

8.9.240 The asset's wider setting in the longer-term as a result of the construction would be partially altered from an agricultural landscape associated with the historic farmstead to biodiversity zones. This would have only a limited effect on the ability to understand the asset's heritage value, which is derived from its architectural and historic interests along with its village setting which would remain intact.

8.9.241 The value of Church Farm [**MLI118026**] is low with the magnitude of impact assessed as very low, resulting in a **negligible adverse (not significant)** effect.

Hermitage Farm Barns [MLI86737]

8.9.242 Hermitage Farm Barns, now residential accommodation, is located just outside the Order limits in the south-east of the village of Harpswell, being nearer to the Principal Site than Church Farm [**MLI118026**] to the north.

8.9.243 The farm is recorded on the LHER, described as an early to mid-19th century farmstead which is partially extant. Built of limestone, the buildings are a two-storey barn with a single storey manger attached to its south gable and a single storey building attached at ninety degrees to its north-west elevation. The farmstead comprised a regular courtyard of U-plan, with the farmhouse detached from the main working complex. There has been a partial loss (less than 50%) of traditional buildings.

8.9.244 The setting of the asset includes its garden surrounded by mature tree planting which screens it from intervisibility to the village and wider surrounding landscape. The wider agrarian landscape contributes to the asset's setting and historic function, as does its relationship with similar dispersed nearby historic farmsteads.

- 8.9.245 The closest fields to Hermitage Farm Barns within the Principal Site are proposed biodiversity zones, with the Order limits set back from the village as part of embedded mitigation to minimise impacts on the village. Fields with solar panels include screening with proposed new native woodland planting to further reduce any intervisibility, as set out in the **Framework LEMP [EN010142/APP/7.17]**.
- 8.9.246 The farm has been identified as a sensitive residential noise receptor, R5 for Harpswell Village, in **Chapter 13: Noise and Vibration** of this ES **[EN010142/APP/6.1]**. Temporary daytime noise levels from solar panel, Solar Station and substation construction and cable laying activities were identified. Temporary levels were assessed as not significant.
- 8.9.247 The asset's setting during temporary active construction would be altered by noise intrusion. In the longer term as a result of the construction, the character of the asset's setting would be altered from an agricultural landscape associated with the historic farmstead to one that in the surrounding fields would become biodiversity zones. This would alter the wider setting of the asset but have only a limited effect on the ability to understand and appreciate its heritage value, which is derived from its architectural and historic interests.
- 8.9.248 The value of Hermitage Farm Barns **[MLI86737]** is low with the magnitude of impact assessed as low, resulting in a **negligible adverse (not significant)** effect.

Other Non-designated Built Heritage Assets Scoped for Assessment

Clapper Gate 31 [MNT27760]

- 8.9.249 Clapper gates are unique to the navigable sections of the Trent with Clapper Gate 31 **[MNT27760]** being located within the Cable Route Corridor to the north-west of the River Trent. It forms a group of six undated assets relating to the use and management of the River Trent, comprising self-closing clapper gates located along the banks of the river erected in the 18th century along the original towpath.
- 8.9.250 The NHER record states that only the main post remains, with no hinge or gate leaves, of Clapper Gate 31. This asset is an example of a well-known and understood group of clapper gates along the navigable reaches of the river with its local significance derived from their limited historic and archaeological interest and group value.
- 8.9.251 Temporary works associated with the buried cable route and HDD or similar under the Trent have the potential to impact upon the asset, applying the principles of the Rochdale Envelope on a worst-case scenario assessment. The impact, if within the footprint of the works, could result in its removal and loss.
- 8.9.252 The value of Clapper Gate 31 **[MNT27760]** is very low with the magnitude of impact assessed as high, resulting in a **minor adverse (not significant)** effect.

Cottam Power Station [MNT25450]

- 8.9.253 Cottam Power Station was built in 1964 - 1969 on a 620 acre site next to the west bank of the River Trent, Nottinghamshire. Its construction includes eight cooling towers and a 650ft chimney, with the whole power plant enveloped in bright amber coloured aluminium sheeting. The power station was decommissioned in 2019 and is currently under a certificate of immunity from listing (1482644) until October 2027 but is recorded as a non-designated heritage asset on the NHER. The site of the power station partially falls within the Order limits of the Cable Route Corridor.
- 8.9.254 The asset forms part of the group of Trentside power stations and has some architectural and historical interest as an asset of local industrial value. The power station dominates its rural setting which makes some limited contribution to its value, though most of its value is derived from its architectural and group value with the other Trentside power stations.
- 8.9.255 Temporary construction activities associated with the buried cable route are not considered to have any impact upon the setting and value of the asset, with no effect on the ability to understand or experience the asset.
- 8.9.256 Cottam Power Station [MNT25450] is an asset of low value, with the magnitude of impact assessed as no change, resulting in a **neutral (not significant)** effect.

Archaeological Heritage Assets

Late Iron Age to Romano-British Enclosure Complex [AEC001]

- 8.9.257 A Late Iron Age to Romano-British rural settlement or farmstead [AEC001] was identified in Field 3 by geophysical survey and trial trench evaluation. Two groups of rectilinear enclosure, one with internal subdivisions and associated curvilinear features were recorded demonstrating reasonably good correlation with the geophysical survey, although several additional gullies not identified as geophysical anomalies were recorded. Artefacts recovered from the excavated features comprise pottery spanning the Late Iron Age to Romano-British periods, animal bone, a small number of iron objects and a fragment from a rotary quern. The value of this asset is derived from its archaeological and historic interest and the potential to contribute to the understanding of Late Iron Age and Romano-British settlement, agricultural regimes and the farming economy of the site. The asset is therefore considered to be of medium value.
- 8.9.258 This asset has been included within the embedded mitigation for the Principal Site and has been established as a Sensitive Archaeology Site (SAS 1) in which Solar PV panels and associated infrastructure have been removed from the Scheme Design, thereby preserving the buried archaeological remains. The area will be demarcated with fencing to prevent accidental entry and disturbance of archaeological remains during the construction, operation and decommissioning of the Scheme.
- 8.9.259 Construction of the Scheme would therefore not result in any physical impacts and no change to this asset of medium value, resulting in a **neutral** significance of effect. This is considered to be **not significant**.

Late Iron Age to Romano-British Enclosure Complex [AEC002]

- 8.9.260 A complex of rectilinear enclosures with associated occupation layers and pits representing Late Iron Age to Romano-British rural settlement or farmstead [AEC002] was recorded in Field 4. The features generally corresponded well with the results of the geophysical survey, although a small number of gullies and pits not identified by the geophysics suggest a greater density of features may survive. Pottery, animal bone, ceramic building material (CBM), fired clay and metal work including a 3rd century copper alloy coin indicate that the site was occupied during the Late Iron Age and Romano-British periods with a focus in the mid-late Romano-British period. A residual Neolithic flint arrowhead and possible flint blades recovered from later Romano-British features provide some evidence for earlier transient activity. The value of this asset is derived from its archaeological and historic interest and its potential to contribute to the understanding of the extent of human activity across the drainage catchment of the River Trent during the Neolithic and the pattern of Romano-British rural settlement activity. It is considered to be of medium value.
- 8.9.261 This asset has been included within the embedded mitigation for the Principal Site and has been established as a Sensitive Archaeology Site (SAS 2) in which Solar PV panels and associated infrastructure have been removed from the Scheme Design, thereby preserving the buried archaeological remains. The area will be demarcated with fencing to prevent accidental entry and disturbance of archaeological remains during the construction, operation and decommissioning of the Scheme.
- 8.9.262 The asset is of medium value and would experience no change as a result of construction of the Scheme, resulting in a **neutral** significance of effect, which is considered to be **not significant**.

Extant earthwork Ridge and Furrow [AEC003]

- 8.9.263 Extant, but poorly surviving medieval/post-medieval ridge and furrow was identified by aerial photographic and LiDAR mapping and geophysical surveys at the northern end of Field 16 [AEC003]. The value of the asset is derived from its archaeological and historic interest, which has been compromised by poor preservation as a consequence of modern ploughing. The asset is, therefore, assessed as being of low value.
- 8.9.264 Embedded mitigation in the form of preservation within SAS 3 and the removal of Solar PV panels and associated infrastructure from the Scheme Design will result in no change to this asset of low value, which is assessed as a **neutral** significance of effect. This is considered to be **not significant**.

Romano-British Enclosure Complex [AEC004]

- 8.9.265 In Field 31, a complex of ditches and gullies were recorded forming a regular arrangement of rectilinear ditches with possible enclosures, curvilinear gullies, and discrete pits between them [AEC004]. The enclosures represent a Romano-British farmstead, with stratigraphic relationships between features providing evidence for two phases of occupation. Pottery recovered from the features suggests that this farmstead originated in the early to middle Romano-British period with the principal phase of activity being of

middle–late Romano-British date. The value of this asset is derived from its archaeological and historic interest and the potential to contribute to the understanding of the Romano-British settlement patterns and agricultural regimes within the landscape of the Principal Site and wider region. The asset is considered to be of medium value.

8.9.266 This asset has been included within the embedded mitigation for the Principal Site and has been established as a Sensitive Archaeology Site (SAS4), in which Solar PV panels and associated infrastructure have been removed from the Scheme Design, thereby preserving the buried archaeological remains. The area will be demarcated with fencing to prevent accidental entry and disturbance of archaeological remains during the construction, operation and decommissioning of the Scheme.

8.9.267 Construction of the Scheme would therefore not result in any physical impacts and no change to this asset of medium value, resulting in a **neutral** significance of effect. This is considered to be **not significant**.

Late Iron Age to Romano-British Enclosure Complex [AEC005]

8.9.268 A Late Iron Age to Romano-British farmstead [AEC005] was defined by a cluster of interconnected and overlapping rectilinear and curvilinear enclosures, gullies and pits, identified in Fields 139 and 140. The features excavated during the trial trench evaluation correspond well with the geophysical survey results, although a number of additional features in some trenches suggest a greater density of archaeology may survive. Artefacts including animal bone and pottery spanning the Late Iron Age and Romano-British periods, were recovered with a focus towards the 2nd to 4th centuries AD. The value of this asset is derived from its archaeological and historic interest and the potential to contribute to the understanding of the pattern and types of Romano-British, agricultural regimes and farming economy of the site. It is considered to be of medium value.

8.9.269 This asset has been included within the embedded mitigation for the Principal Site and has been established as SAS 5, in which Solar PV panels and associated infrastructure have been removed from the Scheme design, thereby preserving the buried archaeological remains. The area will be demarcated with fencing to prevent accidental entry and disturbance of archaeological remains during the construction, operation and decommissioning of the Scheme.

8.9.270 The asset is of medium value and would experience no change as a result of construction of the Scheme, resulting in a **neutral** significance of effect, which is considered to be **not significant**.

Romano-British Enclosure Complex [AEC006]

8.9.271 A small Romano-British enclosure complex [AEC006] was recorded by geophysical survey and confirmed by trial trench evaluation in Fields 45 and 47. Animal bone, CBM, fired clay, flint, shell, an iron rod and pottery predominantly of middle–late Romano-British period were excavated from the enclosure ditches and suggest that this settlement may be contemporary with the enclosures recorded in Fields 139 and 140. The value of this asset is derived from its archaeological and historic interest and the potential to

contribute to the understanding of Romano-British rural settlement activity within the region. It is, therefore, considered to be of medium value.

8.9.272 This asset has been included within the embedded mitigation for the Principal Site and has been established as SAS 6, the central part of which extends beyond the Order limits as part of the buffer surrounding the residential property at Manor Farm. Solar PV panels and associated infrastructure have been removed from SAS 5, thereby preserving the buried archaeological remains. The area within the Order limits will be demarcated with fencing to prevent accidental entry and disturbance of archaeological remains during the construction, operation and decommissioning of the Scheme.

8.9.273 The asset is of medium value and would experience no change as a result of construction of the Scheme, resulting in a **neutral** significance of effect, which is considered to be **not significant**.

Romano-British Enclosure Complex [AEC007]

8.9.274 In Field 55, east of Harpswell Low Farm, trial trench evaluation recorded a Romano-British farmstead [AEC007] comprising two small rectilinear enclosures linked by curvilinear gullies forming a boundary or track, with a small enclosure/ring ditch nearby. The excavated features largely corresponded with the results of the geophysical survey. The features produced a range of artefacts including pottery of middle–late Romano-British date, animal bone and fragments of a late 3rd to 4th-century AD copper alloy bracelet/armlet. The asset is considered to be of medium value which is derived from its archaeological and historic interest and its ability to inform the understanding of Romano-British settlement patterns and agricultural economy of the period.

8.9.275 This asset has been included within the embedded mitigation for the Principal Site and has been established as SAS 7 in Field 55 where Solar PV panels and associated infrastructure have been removed from the Scheme Design, thereby preserving the buried archaeological remains. Field 55 also forms part of Biodiversity Zone 6 (BZ6) which is also excluded from Solar PV panels. SAS 7 will be demarcated with fencing to prevent accidental entry and disturbance of archaeological remains during the construction, operation and decommissioning of the Scheme.

8.9.276 The asset has a medium value and construction of the Scheme would not result in any physical impacts and no change would occur to this asset, resulting in a **neutral** significance of effect. This is considered to be **not significant**.

Extant earthwork Ridge and Furrow [AEC042]

8.9.277 Extant medieval/post-medieval ridge and furrow survives in Field 55 [AEC042], north of Harpswell Low Farm. The value of the asset is derived from its archaeological and historic interest contributing the understanding of changing land management of medieval open field and its subsequent enclosure. The asset is, therefore, assessed as being of low value.

8.9.278 Embedded mitigation within Field 55 is provided partially through preservation of the ridge and furrow earthworks within SAS 7, but also as

part of the species rich grassland of BZ6. Creation of the species rich grassland will result no real change to the surviving earthworks or the ability to understand and appreciate the asset.

8.9.279 Creation of BZ6 would result in a permanent very low magnitude of impact to an asset of low value. This would result in a **negligible** significance of effect, which is considered **not significant**.

Late Iron Age to Romano-British Enclosure Complex [AEC008]

8.9.280 A Late Iron Age to Romano-British settlement complex [AEC008] comprising rectilinear and a D-shaped enclosures, with smaller ditches and gullies representing internal subdivisions was recorded in Field 62, demonstrating good correlation with results of the geophysical survey. Finds recovered from the excavated features included animal bone, fired clay, worked flint, shell and craft items including a spindle whorl, stone pounder and a whetstone. Pottery recovered mainly dated to the Late Iron Age to early Romano-British, although the D-shaped enclosure produced material of a later middle to late Romano-British date. The asset's value is derived from its archaeological and historic interest and the potential to inform the understanding of Romano-British settlement activity in the region. Asset [AEC008] is considered to the of medium value.

8.9.281 Embedded mitigation in the form of preservation within SAS 8 and the removal of Solar PV panels and associated infrastructure from the Scheme Design will preserve the buried archaeological remains. Consequently, there would be no change to this asset of medium value, which is assessed as a **neutral** significance of effect. This is considered to be **not significant**.

Iron Age to Romano-British Enclosure Complex [AEC009]

8.9.282 A complex farmstead [AEC009], comprising a broadly rectangular arrangement of ditches and gullies defining regular cell-like enclosures and fields, was recorded to the east of a high point in the local topography in Field 68 and the eastern side of Field 60. A smaller number of discrete and clustered pits and postholes and dumps of possible midden material were recorded among the enclosures, while three crop-drying ovens were recorded beyond the southern edge of the settlement. The results of the trial trench evaluation correlated well with those of the earlier aerial photographic and LiDAR mapping and geophysical surveys, suggesting that the enclosure represents a complex farmstead. Artefacts recovered dated to the Late Iron and Romano-British periods, with fragments of Middle Iron Age pottery suggesting a possible earlier phase of settlement. The value of this asset is derived from its archaeological and historic interest and the potential to contribute to the understanding of Iron Age and Romano-British rural settlement activity within the region. The value of the asset is considered to the medium.

8.9.283 This asset has been included within the embedded mitigation for the Principal Site and has been established as SAS 9. Within the SAS Solar PV panels and associated infrastructure have been removed to preserve the buried archaeological remains and will be demarcated with fencing to prevent accidental entry and disturbance of archaeological remains during the construction, operation and decommissioning of the Scheme.

8.9.284 The asset is of medium value and would experience no change as a result of construction of the Scheme, resulting in a **neutral** significance of effect, which is considered to be **not significant**.

Iron Age to Romano-British Enclosure Complex [AEC010; MLI51010]

8.9.285 In the centre of Field 60, a large 'L-shaped' complex of rectilinear enclosures [AEC010] was recorded during the trial trench evaluation, showing good correlation with archaeological anomalies identified by the geophysical survey. A crop-drying oven and a gravel surface provided evidence for the processing of arable crops. Artefacts recovered from the excavated features included pottery dated to the middle to late Romano-British period, animal bone, CBM, fired clay and single pieces of cement, glass, shale and iron, as well as two fragments of human bone. The remains are interpreted as representing a Romano-British complex farmstead and appear to correlate with previously undated cropmarks [MLI51010]. The value of this asset is derived from its archaeological and historic interest and its ability to inform the understanding of Romano-British settlement patterns and agricultural economy of the period. Asset [AEC010; MLI51010] is considered to be of medium value.

8.9.286 The asset [AEC010; MLI51010] has been included within the embedded mitigation for the Scheme and is defined as a Sensitive Archaeology Site (SAS 10). Solar PV panels and associated infrastructure have been removed from the Scheme Design, in order to preserve the buried archaeological remains. SAS 10 will be demarcated with fencing to prevent accidental entry and disturbance of archaeological remains during the construction, operation and decommissioning of the Scheme.

8.9.287 The asset has a medium value and construction of the Scheme would not result in any physical impacts and no change would occur to this asset, resulting in a **neutral** significance of effect. This is considered to be **not significant**.

Romano-British Enclosure Complex [AEC011]

8.9.288 A dense and complex cluster of ditches, gullies, pits, postholes and evidence for a timber-built structure were recorded in Fields 49 and 54 [AEC011]. The remains represent multiple phases of rectilinear and curvilinear enclosures, interpreted as a Romano-British farmstead. The excavated features had a close correlation with anomalies identified by the geophysical survey, although two ditches had no corresponding anomaly. Excavated features produced animal bone and pottery predominantly dated to the mid-late Romano-British period. The asset is considered to be of medium value, which is derived from its archaeological and historic interest and the potential to inform the understanding of Romano-British settlement activity in the region.

8.9.289 The asset has been included within the embedded mitigation for the Scheme and identified as SAS 11. Solar PV panels and associated infrastructure have been removed from the Scheme Design; however, the proposed route of the internal cable route corridor within the Principal Site passes through the northern half of SAS 11. Proposed works may include topsoil stripping

within the internal cable route corridor, excavation of an open cut cable trench, jointing pits and associated access track.

8.9.290 The core of the Romano-British farmstead will remain preserved within SAS 11, with the proposed internal cable route works having the potential to result in the disturbance or loss of elements of the asset which would slightly reduce our ability to understand its archaeological and historic interest.

8.9.291 This is assessed as a permanent low magnitude of impact to an asset of medium value, resulting in a **minor adverse** significance of effect, which is considered to be **not significant**.

Romano-British Enclosure Complex [AEC012]

8.9.292 To the southeast of Harpswell Grange, a series of connected enclosures with internal divisions and a possible trackway representing a probable farmstead or settlement complex [AEC012] were recorded in Field 87. Finds including middle to late Romano-British pottery, animal bone, a copper alloy coin (dated AD 343–48) and a fragment of shale bracelet/armlet were recovered. The value of this asset is derived from its archaeological and historic interest and the potential to contribute to the understanding of Romano-British rural settlement activity within the region. The asset is considered to be of medium value.

8.9.293 This asset has been included within the embedded mitigation for the Principal Site as SAS 12. Within the SAS Solar PV panels and associated infrastructure have been removed to preserve the buried archaeological remains. The SAS will be demarcated with fencing to prevent accidental entry and disturbance of archaeological remains during the construction, operation and decommissioning of the Scheme.

8.9.294 The asset is of medium value and would experience no change as a result of construction of the Scheme, resulting in a **neutral** significance of effect, which is considered to be **not significant**.

Late Iron Age to Romano-British Enclosure Complex [AEC013; MLI53952]

8.9.295 A large Late Iron Age to Romano-British settlement complex recorded within Fields 87 and 98 [AEC013] comprised a pattern of ditches and gullies forming a large rectangular enclosure with internal subdivisions, a possible penannular feature and a small number of pits. The features recorded generally corresponded well with the geophysical survey and cropmark evidence [MLI53952], with settlement remains extending across a 10ha area. The southern extent of the settlement was recorded in Fields 99 and 100 [AEC015]. Finds recovered from across the two settlement enclosures included animal bone and pottery with smaller amounts of CBM, fired clay, slag, stone, shell, iron and copper alloy objects and two fragments of human bone. The pottery evidence suggests that the northern settlement enclosures [AEC013; MLI53952] probably originated in the Late Iron Age–early Romano-British period and remained occupied until the 3rd to 4th centuries AD. The value of the assets is derived from its archaeological and historic interest and the ability to inform the understanding of Romano-British

settlement patterns, agricultural economy and metal working activity of the period. The asset is assessed as being of medium value.

8.9.296 This asset [**AEC013**; **MLI53952**] has been included within the embedded mitigation for the Principal Site, as SAS 13 in Field 87 and SAS14 in Field 98. Solar PV panels and associated infrastructure have been removed from the two SAS, preserving the buried archaeological remains. The two SAS will be demarcated with fencing to prevent accidental entry and disturbance of archaeological remains during the construction, operation and decommissioning of the Scheme.

8.9.297 The asset [**AEC013**; **MLI53952**] is of medium value and would experience no change as a result of construction of the Scheme, resulting in a **neutral** significance of effect, which is considered to be **not significant**.

Late Iron Age to Romano-British Enclosure Complex [AEC015]

8.9.298 The southern extent of settlement [**AEC013**; **MLI53952**] was recorded in Fields 99 and 100 in the form of a large sub-rectangular enclosure with smaller internal, curvilinear ditches and possible evidence for a structure [**AEC015**]. Pottery evidence suggests that this settlement enclosure was added to [**AEC013**; **MLI53952**] during the mid-1st to early 2nd centuries AD, with both parts of the settlement remaining occupied until the 3rd to 4th centuries AD. The value of the asset [**AEC015**] is derived from its archaeological and historic interest and its ability to inform the understanding of Romano-British settlement patterns, agricultural economy of the period. It is assessed as being of medium value.

8.9.299 This asset has been included within the embedded mitigation for the Principal Site and defined as SAS 15 in Fields 99 and 100. Solar PV panels and associated infrastructure have been removed to preserve the buried archaeological remains within. However, the proposed route of a gravel maintenance track extends across the northwest corner of the SAS. Construction of access track has the potential to result in the disturbance or loss of localised elements of the asset which could slightly reduce the ability to understand its archaeological and historic interest, while the core of the Romano-British farmstead remains preserved within majority of SAS 15.

8.9.300 This is assessed as a permanent low magnitude of impact to an asset of medium value, resulting in a **minor adverse** significance of effect, which is considered to be **not significant**.

Late Iron Age to Romano-British Enclosure Complex [AEC014]

8.9.301 To the east of the Late Iron Age and Romano-British settlement complex in Fields 87 and 98, a pattern of rectilinear ditches [**AEC014**] was recorded extending eastwards across Field 98. The features may represent a Late Iron Age to Romano-British field system associated with the adjacent farmsteads [**AEC013** and **AEC015**] forming part of a contemporary agricultural landscape. The archaeological and historic interest derived from these remains contributes to the understanding of the development and management of the Romano-British rural landscape, which, when considered in direct association with contemporary settlement activity is considered to be of medium value.

8.9.302 Construction of the Scheme in Field 98 will include the installation of Solar PV panels, Solar Station and BESS, low voltage cabling between the Solar PV panels and Solar Station/BESS and associated gravel access track. The asset comprises the buried remains of a coaxial pattern of, widely spaced, linear ditches that once bounded what have been interpreted as several sub-rectangular fields across a 9 ha area. The proposed works have the potential to result in the localised disturbance or loss of small elements of these ditches which would slightly reduce our ability to understand the asset's archaeological and historic interest.

8.9.303 This is assessed as being a permanent low magnitude of impact to an asset of medium value, resulting in a **minor adverse** significance of effect, which is considered to be **not significant**.

Romano-British Enclosure Complex [AEC016]

8.9.304 In fields 102 and 106 a small group of enclosures, linear and curvilinear ditches and gullies corresponded with anomalies identified by geophysical survey. The remains may represent a Romano-British farmstead defined by ditches and gullies [AEC016], with finds spanning the Romano-British period, particularly the 1st to 2nd centuries AD recovered from the excavated features. The value of this asset is derived from its archaeological and historic interest and the potential to contribute to the understanding of Romano-British rural settlement activity within the region. The asset is considered to be of medium value.

8.9.305 This asset has been included within the embedded mitigation for the Principal Site as SAS 16. Within the SAS Solar PV panels and associated infrastructure have been removed to preserve the buried archaeological remains and will be demarcated with fencing to prevent accidental entry and disturbance of archaeological remains during the construction, operation and decommissioning of the Scheme.

8.9.306 The asset [AEC016] is of medium value and would experience no change from construction of the Scheme, resulting in a **neutral** significance of effect, which is considered to be **not significant**.

Romano-British Enclosure Complex [AEC017; MLI86409]

8.9.307 Evidence for a small Romano-British farmstead or rural settlement [AEC017] was recorded in Field 112. The cluster of small, 'cell-like' rectangular, ditched enclosures corresponded with anomalies identified by the geophysical survey and a previous archaeological watching brief undertaken for the Caenby Corner to Gainsborough Replacement Gas Pipeline [MLI86409; ELI5070 and ELI5075]. The asset's value is derived from its archaeological and historic interest and ability to inform the understanding of Romano-British settlement activity in the region.

8.9.308 This asset has been included within the embedded mitigation for the Principal Site as SAS 17, Solar PV panels and associated infrastructure removed to preserve the buried archaeological remains. The SAS will be demarcated with fencing to prevent accidental entry and disturbance of archaeological remains during the construction, operation and decommissioning of the Scheme.

8.9.309 The asset is considered to be of medium value and would experience no change as a result of construction of the Scheme, resulting in a **neutral** significance of effect, which is considered to be **not significant**.

Romano-British Enclosure Complex [AEC018]

8.9.310 A group of ditches defining a sub-rectangular settlement enclosure with internal subdivisions forming smaller enclosures and fields [AEC018] was recorded in Field 123. The remains corresponded well with a cluster of anomalies identified by geophysical survey and represents a long-lived farmstead with pottery spanning the entire Romano-British period. The value of this asset is derived from its archaeological and historic interest and its ability to inform the understanding of Romano-British settlement patterns and agricultural economy of the period.

8.9.311 Asset [AEC018] has been included within the embedded mitigation for the Principal Site as SAS 18. Within the SAS Solar PV panels and associated infrastructure have been removed to preserve the buried archaeological remains. The perimeter of the SAS will be demarcated with fencing to prevent accidental entry and disturbance of archaeological remains during the construction, operation and decommissioning of the Scheme.

8.9.312 Construction of the Scheme would result in no change to this asset, which is of medium value, resulting in a **neutral** significance of effect, which is considered to be **not significant**.

Late Iron Age to Romano-British Enclosure Complex [AEC019]

8.9.313 The large enclosure complex [AEC019] recorded in Fields 115 and 94, to the northeast of Glentworth Grange, represents a complex farmstead which originated in the Late Iron Age–early Romano-British period and remained occupied into the later Romano-British period Romano-British. The rectangular enclosure and internal cell-like subdivisions corresponded well with anomalies identified by geophysical survey. The excavated evidence suggested that there were multiple inhabited spaces within the settlement rather than a single domestic focus. The medium value of this asset is derived from its archaeological and historic interest and the potential to contribute to the understanding of the pattern and types of Romano-British settlement, agricultural regimes and the farming economy of the site.

8.9.314 The asset is included in the embedded mitigation for the Principal Site as SAS 19, within which Solar PV panels and associated infrastructure have been removed to preserve the buried archaeological remains. The perimeter of the SAS will be demarcated with fencing to prevent accidental entry and disturbance of archaeological remains during the construction, operation and decommissioning of the Scheme.

8.9.315 Construction of the Scheme would result in no change to this asset, which is of medium value, resulting in a **neutral** significance of effect, which is considered to be **not significant**.

Late Iron Age to Romano-British Enclosure Complexes [AEC020 and AEC021]

- 8.9.316 Two Late Iron Age to Romano-British enclosure complexes were recorded in Field 116 to the south of Glentworth Grange. The northern group of features comprised ditches and gullies defining abutting curvilinear enclosures with possible internal divisions, pits and hearths [AEC020]. The more ephemeral remains of a second, possibly shorter-lived or less intensively occupied settlement [AEC021], comprised a series of incomplete ditched enclosures, with smaller numbers of gullies, pits and concentrations of stone rubble in the southernmost enclosure ditch. Finds dating to the Late Iron Age and Romano-British periods, including transitional wares, suggest that both settlements were contemporary with [AEC019] recorded in Fields 115 and 94 (**Appendix 8-6-6: Archaeological Evaluation Report for Fields 80-81, 93-97, 115-116, 125, 126 and 128** of this ES [EN010142/APP/6.2]). The value of assets is derived from their archaeological and historic interest and ability to inform the understanding of Romano-British settlement activity in the region.
- 8.9.317 Both assets have been included within the embedded mitigation for the Principal Site as Sensitive Archaeology Sites, archaeological remains comprising [AEC020] will be preserved within SAS 20 and [AEC021] in SAS 21. Solar PV panels and associated infrastructure have been removed from the Scheme Design for both areas, which are located within the extent of proposed Biodiversity Zone (BZ14). The area will be demarcated with fencing to prevent accidental entry and disturbance of archaeological remains during the construction, operation and decommissioning of the Scheme.
- 8.9.318 Asset [AEC020] is of medium value and would experience no change as a result of construction of the Scheme, resulting in a **neutral** significance of effect, which is considered to be **not significant**.
- 8.9.319 Similarly, [AEC021] would experience no change as a result of construction of the Scheme, which as an asset of medium value would result in a **neutral (not significant)** significance of effect.

Romano-British Enclosure Complex [AEC022]

- 8.9.320 The series of Romano-British settlement enclosures [AEC022] recorded at the foot of the Lincoln Cliff in Fields 131, 132 and 137, corresponded with anomalies identified by the geophysical survey. Sparse finds including pottery spanning the Romano-British period were recovered, with possible focus of activity during the 2nd to 3rd centuries AD. Evidence for earlier occupation activity was also recorded in the form of a Late Neolithic/Early Bronze Age (Beaker) pit and residual prehistoric pottery found in later Romano-British features. The value of this asset is derived from its archaeological and historic interest with potentially rare evidence for Late Neolithic/Early Bronze Age (Beaker) and Romano-British settlement activity contributing to the understanding of regional settlement patterns.
- 8.9.321 This extensive complex of archaeological remains has been included within the embedded mitigation for the Principal Site being preserved within SAS 23 in Field 131, SAS 24 in Field 132 and SAS 25 in Field 137. Solar PV panels and associated infrastructure have been removed from the Scheme

Design for each area. The areas will be demarcated with fencing to prevent accidental entry and disturbance of archaeological remains during the construction, operation and decommissioning of the Scheme.

8.9.322 Those parts of the asset within SAS 23, 24 and 25 would experience no change as a result of construction of the Scheme.

8.9.323 There is potential for archaeological remains of Romano-British date that form part of [AEC022] to extend between SAS 23 and SAS 24, flanking and beneath the existing farm access track. Upgrading and widening of this access track and associated tree planting has the potential to disturb or remove some localised elements of the asset which could slightly reduce our ability of understand its heritage interest.

8.9.324 Construction of the Scheme therefore has the potential to result in a permanent low magnitude of impact to an asset of medium value, resulting in a **minor adverse** significance of effect. This is considered to be **not significant**.

Possible Trackway and Field Boundaries [AEC023]

8.9.325 The possible trackway and associated a coaxial arrangement of subsidiary ditches [AEC023] recorded running parallel to the B1398 Middle Street, correlate with anomalies identified by geophysical survey in Fields 133 and 134 and which may represent an undated routeway. The date and function of the features is uncertain as, with the exception of a single prehistoric flint flake, their fills were archaeologically sterile. The archaeological and historic interest of these features, and therefore their value, would be dependent on conformation of their date and ability to contribute to the understanding of regional settlement and land use patterns.

8.9.326 This asset has been included within the embedded mitigation for the Principal Site being preserved within SAS 26. Solar PV panels and associated infrastructure have been removed from the Scheme Design within Biodiversity Zone (BZ16). The SAS will be demarcated with fencing to prevent accidental entry and disturbance of archaeological remains during the construction, operation and decommissioning of the Scheme.

8.9.327 Those parts of the asset within SAS 26 would experience no change as a result of construction of the Scheme.

8.9.328 However, any widening or upgrade works required for Principal Site Access 4 may have the potential for the localised disturbance or loss of elements of the asset which could slightly reduce our ability of understand its heritage interest. Construction of the Scheme therefore has the potential to result in a permanent low magnitude of impact to an asset of medium value, resulting in a **minor adverse** significance of effect. This is considered to be **not significant**.

Medieval Moated Site [MLI50291]

8.9.329 In the southwest corner of Field 124, trial trench evaluation recorded the remains of a medieval moated site [MLI50291] identified by geophysical and LiDAR surveys, historic mapping and the Lincolnshire HER. The remains of the eastern and southern extents of the moat, stone revetment wall

foundations, moat platform with ground levelling/raising deposits or occupation layers, two robbed stone walls and a stone surface were recorded. Finds including animal bone, a fragment of medieval iron horseshoe, medieval – late medieval pottery, a medieval whetstone, an iron nail, fragments of roofing tile and a lump of fired clay were recovered from the moat and levelling layers. Environmental samples and borehole cores recovered from water-logged deposits in the moat were rich in environmental evidence representative of the surrounding environment and development of the site through time. The value of the asset is derived from its archaeological and historic interest, with potential to inform the understanding of medieval settlement and land management, particularly the development of Glentworth prior to and during the creation of the deer park. The asset is considered to be of medium value.

8.9.330 The medieval moated site [MLI50291] has been included within the embedded mitigation for the Principal Site as SAS 22. Within the SAS Solar PV panels and associated infrastructure have been removed to preserve the buried archaeological remains. In addition, Field 124 would form part of the proposed Biodiversity Zone (BZ13). The perimeter of the SAS will be demarcated with fencing to prevent accidental entry and disturbance of archaeological remains during the construction, operation and decommissioning of the Scheme. Planting of native tree species along the edge of the extant ditch which forms the western boundary of the SAS will not impact the buried archaeological remains of the moated site.

8.9.331 Construction of the Scheme will therefore result in no change to this asset, which has medium value, resulting in a **neutral** significance of effect, which is considered to be **not significant**.

Medieval Deer Park Pale [MLI54002]

8.9.332 To the north of the moated site in the centre of Field 123 the trial trenching recorded possible evidence for the medieval deer park pale [MLI54002] associated with Glentworth Hall as an east–west aligned ditch in several trenches. The buried remains of the park pale retain archaeological and historic interest derived from their ability to inform the understanding of the development of the medieval and post-medieval local landscape prior to, during and after emparkment. The asset is assessed as being of low value.

8.9.333 Construction of the Scheme in Field 123 will include the installation of Solar PV panels, Solar Station and BESS, low voltage cabling between the Solar PV panels and Solar Station/BESS. Construction of the BESS and Solar Station have the potential to remove a short 4.5m - 5m wide section of the park pale, while individual steel mounting poles have the potential to result in the disturbance or loss of highly localised elements of the asset, which extends for a length of at least 820m within the Principal Site. This would slightly reduce our ability of understand its heritage interest.

8.9.334 This is assessed as being a permanent low magnitude of impact to an asset of low value, resulting in a **negligible adverse** significance of effect, which is **not significant**.

Former Ridge and Furrow and Boundary Ditches [MLI86414]

8.9.335 The evidence for medieval settlement within the Principal Site has been recorded at various locations in the form of the buried remains of former ridge and furrow cultivation and boundary ditches recorded from 1940s aerial photographs. Ploughed out ridge and furrow and a field boundary ditch [MLI86414] recorded in Field 89 towards the centre of the Principal Site during an archaeological watching brief for the replacement gas main between Caenby Corner and Sturgate Airfield [ELI5075] provide evidence for the open field systems associated with the medieval settlement of Harpswell. Remains of this type are, however, common and widespread across the 1km study area and wider East Midlands region. The value of this asset is derived from its historic and archaeological and historic interest, which have been denuded by later ploughing. The asset is therefore assessed as being of low value.

8.9.336 Construction of the Scheme will include the installation of Solar PV panels, Solar Station and BESS and low voltage cabling between the Solar PV panels and Solar Station/BESS. The proposed works have the potential to result in the disturbance or loss of localised elements of the asset which would slightly reduce our ability of understand its heritage interest.

8.9.337 This is assessed as being a permanent low magnitude of impact to an asset of low value, resulting in a **negligible adverse** significance of effect, which is **not significant**.

Demolished Unnamed Post-medieval Farm [MLI118027]

8.9.338 Evidence for post-medieval rural settlement is well represented within the Principal Site and illustrates the changing landscape of enclosed fields and scattered farmsteads of the period. The Lincolnshire HER records the location of a now demolished 19th century outfarm [MLI118027] in the northwest corner of Field 118. No evidence for the remains of the farm were recorded by the aerial photographic and LiDAR interpretation or geophysical survey and the location was inaccessible during the trial trench evaluation. The farm is shown on historic Ordnance Survey maps as comprising regular courtyard with L-plan range plus detached buildings on the third side of the yard. The buried remains of the farm hold archaeological and historic interest derived from its ability to inform the understanding of the distribution and layout of the domestic and agricultural buildings and post-medieval farming practices. As part of a group of well understood assets it is assessed as being of low value.

8.9.339 The asset is located within an area of existing vegetation in which proposed works will be limited to the creation of a gravel access track. Construction of the access track has the potential to cause the disturbance or loss of localised elements of the asset which would slightly reduce our ability of understand its heritage interest.

8.9.340 This is assessed as being a permanent low magnitude of impact to an asset of low value, resulting in a **negligible adverse** significance of effect, which is **not significant**.

Demolished Unnamed Post-medieval Farm [MLI118030]

- 8.9.341 The location of a now demolished 19th century outfarm in Harpswell [MLI118030] is recorded on the boundary between Fields 57 and 58. No evidence for the remains of the farm were recorded by the aerial photographic and LiDAR interpretation, geophysical survey or trial trench evaluation. The farm is shown on historic Ordnance Survey maps as comprising regular courtyard with L-plan range plus detached buildings on the third side of the yard. The buried remains of the farm hold archaeological and historic interest derived from its ability to inform the understanding of the distribution and layout of the domestic and agricultural buildings and post-medieval farming practices. As part of a group of well understood assets it is assessed as being of low value.
- 8.9.342 The asset is located on the boundary between two fields in which solar PV panels are proposed. Construction of the solar PV panels has the potential to cause the disturbance or loss of localised elements of the asset which would slightly reduce our ability to understand its heritage interest.
- 8.9.343 This is assessed as being a permanent low magnitude of impact to an asset of low value, resulting in a **negligible adverse** significance of effect, which is **not significant**.

Demolished Post-medieval Northland's Farm [MLI118035]

- 8.9.344 The demolished 19th century Northland's Farm, Glentworth [MLI118035], is recorded within Field 119 with a regular courtyard of 'E-plan' and a farmhouse detached from the main working complex. The buried remains of the main farm buildings lie within a small agricultural yard surrounded by scrub vegetation. No evidence for the remains of the farm were recorded by the aerial photographic and LiDAR interpretation or geophysical survey and the location was inaccessible during the trial trench evaluation. The remains of the farm are likely to have been subject to previous ground disturbance from construction of the yard surface but retain some archaeological and historic interest derived from the asset's ability to inform the understanding of the distribution and layout of the domestic and agricultural buildings and post-medieval farming practices. As part of a group of well understood assets it is assessed as being of low value.
- 8.9.345 The proposed works will include the construction of the proposed Substation B, which extend into the northern edge of the former farm buildings and installation of Solar PV panels on the eastern edge of the asset, as shown on the **Figure 3-1: Indicative Principal Site Layout Plan** of this ES [EN010142/APP/6.3]. Construction of the Scheme has the potential to result in the disturbance or partial loss of the asset which would reduce our ability to understand its heritage interest.
- 8.9.346 This is assessed as being a permanent low magnitude of impact to an asset of low value, resulting in a **negligible adverse** significance of effect, which is **not significant**.

Demolished post-medieval Heapham Grove Farm [MLI118061]

- 8.9.347 The Lincolnshire HER records the location of the demolished 19th century Heapham Grove Farm [MLI118061] on the western edge of Harpswell Wood

in Field 47. No evidence for the remains of the farm were recorded by the aerial photographic and LiDAR interpretation while the geophysical survey recorded only ferrous debris. The farmstead is recorded as having a regular 'U-plan' courtyard and farmhouse detached from the main working complex. The buried remains of the farm hold archaeological and historic interest derived from its ability to inform the understanding of the distribution and layout of the domestic and agricultural buildings and post-medieval farming practices. As part of a group of well understood assets it is assessed as being of low value.

8.9.348 The proposed works in Field 47 will include the installation of Solar PV panels, Solar Station and BESS and low voltage cabling between the Solar PV panels and Solar Station/BESS. The proposed works have the potential to result in the disturbance or partial loss of the asset which would reduce our ability to understand its heritage interest.

8.9.349 This asset is considered to be of low value and would experience a permanent medium magnitude of impact resulting in a **minor adverse** significance of effect. This is considered to be **not significant**.

Post-medieval Brick Kiln [MLI53950]

8.9.350 The possible site of a post-medieval brick kiln [MLI53950] is associated with a small wood named '*Brick Kiln Holt*' marked on historic Ordnance Survey maps and in documentary references and the extent of the asset defined by the Lincolnshire HER. However, no evidence for the kiln or brick making was identified during the trial trench evaluation. The value of the asset would be derived from its historic interest combined with the archaeological interest associated with any surviving buried evidence for the kiln and brick making technology. The asset is assessed as being of low value.

8.9.351 The location of the former brick kiln falls within part of SAS 24, and the proposed species rich grassland within Biodiversity Zone (BZ16) and native woodland planting. The proposed works would have no real potential to change the ability to understand and appreciate the asset.

8.9.352 This is assessed as being a very low magnitude of impact to an asset of low value, resulting in a **negligible adverse** significance of effect, which is **not significant**.

RAF Sturgate [MLI50912]

8.9.353 Modern military remains are recorded within the Principal Site, with the eastern end of the main runway, concrete taxiway and dispersals of RAF Sturgate airfield [MLI50912] extending across the south-western corner of the Principal Site. The trial trench evaluation undertaken for the Scheme recorded made ground deposits used to consolidate parts of the runway and perimeter track, demolition layers, redeposited natural, a number of drains and buried tanks/structures associated with the airfield across Fields 33, 35 and 39.

8.9.354 Although well documented and understood, these remains retain historic and archaeological interest derived from their potential to add to the understanding of the layout, use, technology and daily lives of the military personnel who served at the airfield and the asset's interrelationship with

other sites as part of a wider military landscape during the Second World War and Cold War. The surviving remains of RAF Sturgate are considered to be of low value.

- 8.9.355 The proposed works in Fields 33, 35 and 39 will comprise the creation of species rich grassland and native woodland planting for Biodiversity Zones (BZ4 and BZ5). This will retain the concrete perimeter track/taxiway and existing field layout and result in minimal disturbance to the buried archaeological remains of the airfield.
- 8.9.356 The flat, agricultural setting of the airfield will be retained extending beyond the Order limits. Construction of the proposed Solar PV panels at the eastern end of the former runway will largely be screened by existing vegetation and once mature by proposed native woodland planting. The Scheme will not impede the wide, open views eastwards towards the horizon, the direction from which, depending on wind direction, aircraft would have taken off and approached on return to the airfield.
- 8.9.357 The proposed works have the potential to result in minimal disturbance of some elements that comprise the archaeological remains of the airfield. There is also some potential for change to the setting of the asset which would slightly affect our ability of understand its heritage interest.
- 8.9.358 This asset is considered to be of low value and would experience a permanent low magnitude of impact resulting in a **negligible adverse** significance of effect. This is considered to be **not significant**.

Second World War Anti-aircraft and Searchlight Battery [MLI80678]

- 8.9.359 The Lincolnshire HER records the location of a Second World War searchlight battery and associate structures [MLI80678] in Field 61 of the Principal Site. The trial trench evaluation undertaken for the Scheme recorded no evidence for the searchlight battery or buildings. The value of the asset is derived from its historic and archaeological interest which appears to have been compromised by poor preservation following its demolition and removal at the end of the war. Any surviving remains have the potential to add to the understanding of the layout, use, technology and daily lives of the military personnel who served at site and its place as part of a wider military landscape during the Second World War.
- 8.9.360 The proposed works in Field 61 will include the installation of Solar PV panels, Solar Station and BESS, low voltage cabling and gravel access track. The proposed works have the potential to result in the disturbance or localised loss of any surviving elements of the asset which would slightly reduce our ability of understand its heritage interest.
- 8.9.361 This asset is considered to be of low value and would experience a permanent low magnitude of impact resulting in a **negligible adverse** significance of effect. This is considered to be **not significant**.

Undated Enclosure [MLI53953]

- 8.9.362 In Field 108, trial trench evaluation recorded a post-medieval/modern ditch and wall corresponding with a previously undated enclosure [MLI53953] mapped by aerial photographs and geophysical survey extending across the

boundary between Fields 100 and 108. The remains may be associated with the wider post-medieval landscape of Harpswell Hall to the east of the Principal Site. The asset's value is derived from their archaeological and historic interest having the potential to inform the understanding of Harpswell and the wider post-medieval landscape at a local level. The asset is therefore considered to be of low value.

8.9.363 The proposed works will include the installation of Solar PV panels and perimeter fencing in Field 100 and the planting of native woodland screening and creation of species rich grassland in Field 108. The proposed works have the potential to result in the disturbance or loss of localised elements of the asset which would slightly reduce our ability of understand its heritage interest.

8.9.364 This asset is assessed as being of low value and would experience a permanent low magnitude of impact resulting in a **negligible adverse** significance of effect. This is considered to be **not significant**.

Undated Crop/Soil Marks [MLI53951 and MLI54000]

8.9.365 The LHER records the location of two undated sets of crop/soil marks which may represent buried archaeological remains within the Principal Site. A linear trackway or boundary [MLI53951] is recorded crossing Fields 104 and 112, although no evidence for the features was recorded during the trial trench evaluation. In Field 124, a linear boundary [MLI54000] may have been recorded in the form of an undated ditch and associated tree throw during the trial trench evaluation. The value of the buried archaeological deposits which comprise these assets has some archaeological and historic interest but is dependent on their date, function and state of preservation. These assets are assessed as being of low value.

8.9.366 The proposed works will include the installation of Solar PV panels and the internal cable corridor in Fields 104 and 112 and creation of species rich grassland as part of Biodiversity Zone (BZ13) in Field 108. The proposed works have the potential to result in the disturbance or loss of localised elements of these assets which would slightly reduce our ability to understand their heritage interest.

8.9.367 Asset [MLI53951] is assessed as being of low value and would experience a permanent low magnitude of impact resulting in a **negligible adverse** significance of effect. This is considered to be **not significant**.

8.9.368 Linear boundary [MLI54000] would experience a permanent very low magnitude of impact, which as an asset of low value would result in a **negligible adverse** significance of effect, which is **not significant**.

RAF Hemswell [MLI53944]

8.9.369 Extending northeast from the Order limits is the former First and Second World War RAF Hemswell [MLI53944]. Much of the former airfield has now been reverted to agricultural land, although the main runways remain visible, with the former core of the airfield now part of Harpswell industrial estate. The largely rural setting of the airfield and association with the other Lincolnshire airbases, including RAF Sturgate contributes to its significance,

with its historic, architectural and archaeological interest. The asset is therefore assessed as being of low value.

8.9.370 The airfield is, however, located on the higher elevated ground of the Lincoln Cliff, with intervening trees along the A631, B1398, Caenby roundabout and along the top of the scarp screening views of the Scheme. The southwestern extent of the airfield, comprising aircraft dispersal areas, lies immediately east of the Order limits on the eastern side of the B1398 Middle Street, as shown on **Figure 8-3: Non-designated Heritage Assets** of this ES [EN010142/APP/6.3].

8.9.371 Embedded mitigation of the Scheme includes pulling Solar PV panels westwards, away from the asset towards the topographically lower foot of the Lincoln Cliff, introducing species rich grassland (BZ16) and retaining existing screening by trees and hedgerows alongside Middle Street.

8.9.372 Construction of the Scheme will not impact the physical remains of the airfield with limited intervisibility between the Scheme and the asset. It is therefore considered that construction of the Scheme, including use of Middle Street and Principal Site Access 4, would result in minimal change to the setting of the asset or the way in which it is appreciated and understood.

8.9.373 Construction of the Scheme within the wider agricultural landscape of the asset would result in a very low magnitude of impact as a result of changes to the setting of this low value asset. This change would result in a **negligible adverse** significance of effect, which is considered to be **not significant**.

The Serpentine Water Feature [MLI51005]

8.9.374 During alterations undertaken in the mid-18th century, a natural watercourse, to the southeast of the Harpswell Hall [NHLE 1019068], leading to the ornamental moat was widened to produce a serpentine water feature, although now a meandering and overgrown watercourse excluded from the scheduling of Harpswell Hall [MLI51005]. The value of the asset is derived from its archaeological and historic interest, contributing the understanding of development and changing design of post-medieval parks and gardens, particularly Harpswell Hall. Although associated with a scheduled monument it does not form part of the designated asset and is considered to be of low value.

8.9.375 The serpentine water feature lies outside of the Order limits and is heavily screened by existing vegetation including mature trees along its length. Embedded mitigation for the Scheme would include the pulling back of Solar PV panels from the Harpswell Hall scheduled monument, the creation of species rich grassland (BZ8, BZ9 and BZ16), and native woodland planting along the northern boundary of solar panel areas 86 and 90, as set out in the **Framework LEMP [EN010142/APP/7.17]**. These measures will further reduce the presence of the Scheme within the wider agricultural landscape.

8.9.376 The Scheme will not erode or change the key relationships between the serpentine and the ornamental, parkland, tree lined avenue or the location of the former house and sunken garden and would barely alter the way in which the asset is appreciated or understood.

8.9.377 As an asset of low value, it would experience a long term very low magnitude of impact arising from changes to its setting. This would result in a **negligible adverse** significance of effect, which is **not significant**.

Cropmark and Earthwork Features [AEC041]

8.9.378 Towards the northern end of the Cable Route Corridor, a group of ditches and earthwork hollows and banks of uncertain date [AEC041] were identified extending across the Cable Route Corridor and into the field to the east and Heaton's Wood to the west, by the aerial photographic and LiDAR mapping undertaken for the Cottam Solar Project. The features may either represent Late Iron Age to Romano-British enclosure ditches or post-medieval field boundaries and land drainage. The value of these features is uncertain but would be derived from their archaeological and historic interest and dependent on their date, function and state of preservation. For the purpose of this worst-case assessment, this asset is considered to be of medium value.

8.9.379 Installation works within the Cable Route Corridor may include topsoil stripping to create the 40m wide temporary working area/easement, excavation of an open cut cable trench, jointing pits and associated access track. The proposed works have the potential to result in the disturbance or loss of localised corridor through the more extensive features which comprise the asset. This would slightly reduce our ability of understand their heritage interest.

8.9.380 If considered to be of medium value the asset would experience a permanent low magnitude of impact, resulting in a **minor adverse** significance of effect, which is **not significant**.

Cropmark and Earthwork Features [AEC043]

8.9.381 A group of undated, broad shallow ditches, near Moor Bridge, that may represent a rectilinear enclosure measuring 160m by 120m [AEC043], on the northern side of a former field boundary, were identified from LiDAR imagery assessed for the Cottam Solar Project. The feature may represent a former settlement enclosure or former field. The value of these features is uncertain but would be derived from their archaeological and historic interest and dependent on their date, function and state of preservation. If proven to be a settlement enclosure the asset could be of medium value.

8.9.382 Construction of the western, alternate route option of the Cable Route Corridor would as a worst-case, include topsoil stripping to create the 40m wide construction corridor, excavation of an open cut cable trench, jointing pits, drainage and associated temporary haul road may impact the asset. The proposed works have the potential to result in the disturbance or partial loss of elements of the asset which would reduce our ability of understand its heritage interest.

8.9.383 If considered to be of medium value the asset would experience a permanent medium magnitude of impact, resulting in a **moderate adverse** significance of effect, which is considered to be **significant**.

Undated enclosure [AEC024]

- 8.9.384 Geophysical survey undertaken for the adjacent proposed Cottam Solar Project (Cottam 1 Field F4), identified a small focus of archaeological activity comprising a possible rectilinear enclosure, extending northwards beyond the Cable Route Corridor, and an associated curvilinear ditch. Trial trench evaluation of these anomalies confirmed two sides of the enclosure [AEC024], defined by a deep, steep-sided ditch from which fragments of slag, animal bone and a single small fragment of undated pottery were recovered.
- 8.9.385 The value of this asset would be derived from its archaeological and historic interest and dependent on their date, function and state of preservation. If proven to be a settlement enclosure the asset could be of medium value.
- 8.9.386 The preferred cable alignment runs the south of the asset, however, as a worst-case construction of the Cable Route Corridor including topsoil stripping to create the 40m wide construction corridor, excavation of an open cut cable trench, jointing pits, drainage and associated temporary haul road may impact the asset. The proposed works have the potential to result in the disturbance or partial loss of elements of the asset which would reduce our ability of understand its heritage interest.
- 8.9.387 If considered to be of medium value the asset would experience a permanent medium magnitude of impact, resulting in a **moderate adverse** significance of effect, which is **significant**.

Normanby-by-Stow Shrunken Medieval Village [MLI52445]

- 8.9.388 Remains associated with a single medieval settlement extend into the Cable Route Corridor north of Normanby-by-Stow. The remains comprise the fragmentary earthworks of the now shrunken medieval village [MLI52445]. These comprise a rectangular block divided axially by a central north to south street with earthwork crofts, hollow ways, field boundaries and ridge and furrow, with associated below ground archaeological deposits, suggesting that Normanby-by-Stow was a planned village. Geophysical survey undertaken for the proposed Cottam Solar Project recorded a complex of rectilinear enclosures with internal subdivisions and associated ditches were interpreted as forming part of the shrunken medieval village to the east of East Farm (Area F1). Further archaeological anomalies south of East Farm (Area F2) comprised several rectilinear enclosures and linear ditches which may also represent further medieval settlement.
- 8.9.389 The remains have historic and archaeological interest derived from their potential to contribute to the understanding of this settlement type, layout, distribution across the wider medieval landscape in addition to the domestic and economic aspects of the site. The agricultural setting of the settlement remains and the spatial relationship with the ridge and furrow earthworks within the Cable Route Corridor west of the B1241, which form part of the asset, and other near-by medieval settlements, in particular Stow, also contribute to its value. The asset is therefore assessed as being of medium value.

8.9.390 The proposed works within the Cable Route Corridor may include topsoil stripping to create the 40m wide construction corridor, excavation of an open cut cable trench, jointing pits, drainage and associated temporary haul road along the mapped southern periphery of the settlement and through ridge and furrow earthworks west of the B1241. Topsoil stripping for a temporary construction compound will also be required in the area of rectilinear enclosures (Area F2) identified by previous geophysical survey. The proposed works have the potential to result in the disturbance or loss of buried archaeological remains and earthwork remains that form components of the more extensive medieval settlement. This would slightly affect our ability of understand its heritage interest.

8.9.391 As an asset of medium value, it would experience a permanent low magnitude of impact, resulting in a **minor adverse** significance of effect, which is **not significant**.

Possible Iron Age or Romano-British Field System [AEC028]

8.9.392 Undated ditches forming part of a possible Iron Age or Romano-British field system [AEC028] recorded by the Gate Burton Energy Park may be associated with the known Roman settlement sites in the vicinity [MLI52472] and may also be related to the Romano-British field system and settlement [AEC038] identified south of the A1500 Till Bridge Lane/Stow park Road during geophysical survey and trial trench evaluation for the adjacent West Burton Solar Project. The asset has value derived from its archaeological and historic interest and ability to inform the understanding of Romano-British landscape development and rural settlement patterns. It is considered to be of medium value.

8.9.393 The proposed works within the Cable Route Corridor may include topsoil stripping to create the 40m wide construction corridor, excavation of an open cut cable trench, jointing pits, drainage and associated temporary haul road. The proposed works have the potential to result in the disturbance or partial loss of a narrow corridor through the more extensive remains of the asset recorded during archaeological investigations. This disturbance or partial loss would slightly reduce our ability to understand its heritage interest.

8.9.394 This medium value asset would experience a permanent low magnitude of impact, resulting in a **minor adverse** significance of effect, which is **not significant**.

Ridge and Furrow Cultivation [MLI52492]

8.9.395 Further evidence for the agricultural landscape is recorded within the Cable Route Corridor comprising earthwork remains of ridge and furrow cultivation east of Marton [MLI52492]. These remains provide evidence for the open field systems associated with the medieval settlement of Marton but are however common and widespread across the 1km study area and wider East Midlands region. The remains hold historic and some archaeological and historic interest. The agricultural setting of the remains and their interrelationship with the medieval village of Marton contributes to its low value, providing an understanding of the medieval rural landscape.

8.9.396 The proposed works within the Cable Route Corridor may include topsoil stripping to create the 40m wide construction corridor, excavation of an open cut cable trench, jointing pits, drainage and associated temporary haul road. The proposed works have the potential to result in the disturbance or loss of localised elements of the asset which would slightly reduce our ability of understand its heritage interest.

8.9.397 The ridge and furrow earthworks would experience a permanent low magnitude of impact, which as an asset of low value would result in a **negligible adverse** significance of effect, which is **not significant**.

Till Bridge Lane Roman Road [MLI50575]

8.9.398 The major Roman road of Till Bridge Lane [**MLI50575**] runs southeast to northwest through the 1km study area, bisecting the Cable Route Corridor just east of Marton. The Roman road ran from Ermine Street to the north of Lincoln to the crossing of the Trent at Littleborough to reach *Segelocum*, before continuing to Doncaster. It formed a key overland route to Roman York, avoiding the wide ferry crossing of the River Humber. Within Lincoln, a 3rd century milestone was found which recorded the distance to *Segelocum*, indicating that this may have been an important route during the Roman period. Archaeological investigation during drainage works in 1959 recorded a part of the road suggesting that it was well preserved, stating that it was 'well built with a sound metalled surface'. The medium value of the asset is therefore derived from its archaeological and historic interest, as an example of the network of roads established by the Romans which would have provided important transport links between Lincoln, *Segelocum* and the wider province. The potentially well surviving below ground remains of the road also have potential to demonstrate how such roads were constructed and whether their construction varied over time or in different parts of the country. The setting of this asset is defined by its location within a wider landscape of Roman settlement activity and the asset's association with other nearby Roman assets such as the Roman town of *Segelocum*, a Roman fort and multiple rural settlements located along the Roman road.

8.9.399 The impact of the Cable Route Corridor works would be dependent on the type of road crossing employed. New access points from the A1500 into the Cable Route Corridor will also be required (Points 19/03 and 19/04 shown on **Streets, Rights of Way and Access Plans [EN010142/APP/2.4]**). The works, including the use of an open trench crossing (OC16), have the potential to result in the disturbance or loss of a small section (approximately 660-1000mm wide) of the asset which would slightly affect our ability of understand its heritage interest.

8.9.400 Temporary street works, junction improvements and minor alteration to the highway alignment of the A1500 are required at the junction of Till Bridge Lane and Stow Park Road (Point 17/04) and the private means of access onto the A1500 west of Stow Park (Point 18/01 shown on **Streets, Rights of Way and Access Plans [EN010142/APP/2.4]**). The works may result in small scale, localised disturbance or loss of deposits that form part of the asset, but which would barely affect our ability to understand its heritage interest.

8.9.401 This asset is considered to be of medium value and would experience a permanent very low magnitude of impact, resulting in a **negligible adverse** significance of effect, which is **not significant**.

Late Iron Age or Romano-British Field System [AEC038]

8.9.402 In fields south of the A1500 Stow Park Road (West Burton Field Q9), linear ditches possibly representing fragmentary evidence for a Late Iron Age or Romano-British field system extend into the Cable Route Corridor **[AEC038]**. The field system is contemporary with a complex of intercutting rectilinear enclosures recorded by geophysical survey and trial trench evaluation undertaken for the West Burton Solar Project and representing possible roadside settlement alongside the Tillbridge Lane Roman road. The value of this asset is derived from its archaeological and historic interest and its ability to inform the understanding of Romano-British settlement and land management. This value may, however, be limited by the fragmentary nature of the excavated remains and is therefore assessed as being low.

8.9.403 The proposed works within the Cable Route Corridor may include topsoil stripping to create the 40m wide temporary working area/easement, excavation of an open cut cable trench, jointing pits, drainage, temporary haul road, and topsoil stripping for a temporary construction compound. The proposed works have the potential to result in the disturbance or partial loss of elements of the asset which would reduce our ability of understand their heritage interest.

8.9.404 This asset is considered to be of low value and would experience a permanent medium magnitude of impact, resulting in a **minor adverse** significance of effect, which is **not significant**.

Romano-British trackway and Field Boundaries [MLI52489]

8.9.405 Evidence for the Romano-British agricultural landscape has been recorded southeast of Marton in the form of a trackway and field boundaries **[MLI52489]** which may extend across the Cable Route Corridor. Trial trench evaluation undertaken for the proposed Gate Burton solar project did not identify any archaeological evidence for the cropmark features, although it is noted that access constraints prevented the full extent of the cropmarks being investigated (Ref. 8-11). Any buried archaeological remains evidenced by the cropmarks would inform the understanding of the Roman rural economy, land use and management. The value of the asset is therefore derived from its archaeological and historic interest and is assessed as being low value.

8.9.406 The proposed works within the Cable Route Corridor may include topsoil stripping to create the 40m wide construction corridor, excavation of an open cut cable trench, jointing pits, drainage, temporary haul road and open cut trench crossing OC14. Both northern and southern route options for the Cable Route Corridor at this location have the potential to result in the disturbance or loss of part of this more extensive asset which would slightly reduce the ability to understand their heritage interest.

8.9.407 This low value asset would experience a permanent low magnitude of impact, resulting in a **negligible adverse** significance of effect, which is **not significant**.

Post-medieval Flood Defences [MLI52488]

8.9.408 Other post-medieval assets associated with the River Trent include the earthwork remains of two banks south of Marton, which may represent flood defences [MLI52488]. The historic and archaeological and historic interest of these water management features is significant at a local level.

8.9.409 The proposed works within the Cable Route Corridor may include topsoil stripping to create the 40m wide construction corridor, excavation of an open cut cable trench, jointing pits, drainage, temporary haul road and open cut trench crossing OC12. The Scheme therefore has the potential to result in the disturbance or loss of part of the northern of the two earthwork flood banks which would slightly reduce the ability to understand its heritage interest.

8.9.410 This low value asset would experience a permanent low magnitude of impact, resulting in a **negligible adverse** significance of effect, which is **not significant**.

Circular Archaeological Anomalies [AEC030]

8.9.411 A cluster of circular, possible archaeological anomalies and discontinuous 'L-shaped enclosures [AEC030] were identified by geophysical survey undertaken of the proposed Gate Burton Energy Park. The character and date of the remains has not been confirmed by trial trench evaluation. The anomalies may represent evidence for later prehistoric or Romano-British round houses or barrows and enclosures, although the proximity of the recorded extent of the Torksey Viking Winter Camp [MLI125067], approximately 210m south of the Cable Route Corridor may suggest the anomalies relate to 9th century activity associated with the Viking Great Army. The asset's value is derived from its archaeological and historic interest and the potential to inform the understanding of later prehistoric and/or Romano-British settlement, or early medieval activity. Consequently, the asset is assessed as being of medium value.

8.9.412 This part of the Cable Route Corridor is located within the proposed HDD or similar trenchless crossing under the River Trent, see **Figure 3-11: Cable Route Corridor Trenched and Trenchless Crossing Locations** of this ES [EN0101042/APP/6.3]. The proposed trenchless crossing platform for the launch/reception of the directional drill is located approximately 340m east of the asset with cable installation passing beneath the buried remains that comprise the asset.

8.9.413 The asset is considered to be of medium value and would experience no change as a result of the Scheme, resulting in a **neutral** significance of effect, which is **not significant**.

Winter Camp of the Viking Great Army at Torksey [MLI125067]

8.9.414 The winter camp of the Viking Great Army is located on a prominent ridge and bluff overlooking a curve in the River Trent, just to the west of the A156.

Several thousand individuals overwintered in the camp between AD 872 and 873, including warriors, traders, craftworkers. Metal processing and trading was undertaken within the camp and extensive scatters of metalwork and coins have been found in the area. The Winter Camp consists of substantial areas of temporary settlement, evidenced by archaeological features identified during the Torksey Viking Project, early medieval metal working and a large number of early medieval artefacts. A 2012 geophysical survey investigated a north-south aligned linear transect across the site of the winter camp, extending north beyond the asset into the Cable Route Corridor. The survey identified geophysical anomalies of archaeological origin including a large, probable boundary or enclosure ditch, numerous sub-circular and sub-rectangular anomalies likely representing pits or sunken feature structures, evidence for medieval ridge and furrow agriculture and possible post-medieval field boundary ditches (Ref. 8-12). Within the mapped extent of the asset, in the fields to the south of the Cable Route Corridor, archaeological evidence has also indicated that Torksey remained inhabited following the departure of the Viking Great Army, with evidence of industrial activity and burial practices recorded. Numerous kilns have been recorded within the area, with excavations revealing sherds of Torksey ware pottery within. Dating evidence from the sherds have revealed a date range from the 9th to 11th centuries, indicating the site was used as an industrial centre after the presence of the Viking encampment. A possible cemetery site has also been recorded within Torksey. Fieldwalking and excavations revealed a number of human remains and a magnetometer survey identified a possible boundary, recorded as a D-shaped enclosure, within which almost all of the human remains were discovered, located to the south of the modern village. Radiocarbon dating of the bones revealed a concentration of 9th to 10th century remains, highlighting that the burial site was likely contemporary to the pottery production kilns.

8.9.415 The position of the winter camp on a naturally defensible, prominent landscape feature beside the navigable stretch of the River Trent and relationship with associated early medieval settlement form part of its setting and contribute to its value, despite the presence of Cottam Power Station to the west. The extensive archaeological remains and artefactual evidence associated with the winter camp, although not protected through designation as a scheduled monument, have considerable archaeological and historic interest and forms one of a small number of historically documented sites able to provide evidence for how the Viking army functioned, moved through the landscape, the economy, lifestyles and material culture of those in the army, in addition to early medieval settlement and industrial activity. The value of the asset is derived from its considerable archaeological and historic interest, which have the potential to be of national importance, it is therefore considered to be of high value.

8.9.416 Cable Route Corridor Access 6 crosses the northern extent of the asset as mapped by the Lincolnshire HER. Surveys undertaken by the Torksey Viking Project suggest that archaeological remains may also extend further north, beyond the mapped extent of the asset, into the Cable Route Corridor. The proposed works for Cable Route Corridor Access 6 would include excavation to create a temporary access road and associated drainage in a working corridor 6m wide, across a 310m length of northern part of the asset. Within

the Cable Route Corridor itself, topsoil stripping to create the 40m wide construction corridor, excavation of an open cut cable trench, jointing pits, drainage and temporary haul road. These works have the potential to disturb or remove any surviving archaeological remains within Cable Route Corridor Access 6, within the confines of the more extensive 26 ha Viking winter camp. The physical impact to the asset would slightly affect the ability to understand and appreciate its archaeological and historic interest.

- 8.9.417 The asset is considered to be of high value and would experience a permanent low magnitude of impact. This would result in a **moderate adverse** significance of effect, which is **significant**.

Peat Deposits West of the River Trent [MNT27156]

- 8.9.418 The earliest evidence for possible human activity within the Cable Route Corridor comprises palaeoenvironmental remains recovered from buried peat deposits [MNT27156] recorded during an auger survey [ENT4450] and geoarchaeological deposit modelling undertaken for the proposed Gate Burton solar project, west of the River Trent. The deposits, recorded between approximately 2.90m and 3.40m below ground level (Ref. 8-13), are likely to date to the Neolithic period and have archaeological and historic interest derived from their potential to inform the understanding of woodland clearance, cultivation and settlement patterns within the Trent Valley and wider region during this period. The peat deposits are considered to be of medium value.

- 8.9.419 The proposed works within the Cable Route Corridor that have the potential to impact the buried peat deposits include the trenchless crossings of the River Trent (T13) and local watercourses (T11 and T12) as shown on **Figure 3-11: Cable Route Corridor Trenched and Trenchless Crossing Locations** of this ES [EN0101042/APP/6.3]. The 3m internal diameter launch/reception shafts required for the thrust bore solution have the potential to result in the disturbance or loss of part of this extensive asset which would slightly reduce the ability to understand its heritage interest.

- 8.9.420 The asset would experience a permanent low magnitude of impact, which as an asset of medium value would result in a **minor adverse** significance of effect, which is considered **not significant**.

Iron Age or Romano-British Enclosure Complex [AEC031; MNT15983]

- 8.9.421 To the west of the River Trent, cropmarks of possible Iron Age or Romano-British date have been recorded in fields northwest of Cottam [MNT15983]. The cropmarks are indicative of a large curvilinear enclosure measuring approximately 180m long and 100m wide, within which were small circular enclosures, possibly roundhouses, and a linear feature, possibly a trackway, to the east. Trial trench evaluation undertaken for the Gate Burton solar project recorded two oval enclosures [AEC031], although no other archaeological features were identified. No finds were recovered from the features, which may be geological in origin. If proven to be Iron Age or Romano-British settlement features, the remains would have medium value derived from their archaeological and historic interest contributing to the understanding of settlement and land management during these periods.

8.9.422 The proposed works within the Cable Route Corridor may include topsoil stripping create the 40m wide construction corridor, excavation of an open cut cable trench, jointing pits, drainage, temporary haul road and open cut trench crossing OC12 and thrust bore trenchless crossing T9. The Scheme therefore has the potential to result in the disturbance or loss of several component parts of the enclosure complex which would reduce our ability of understand its heritage interest.

8.9.423 This medium value asset would experience a permanent medium magnitude of impact, resulting in a **moderate adverse** significance of effect, which is considered to be **significant**.

Cropmark Complex [MNT4983; AEC032 and AEC033]

8.9.424 A second extensive crop mark complex west Cottam [MNT4983] has been investigated by geophysical survey and trial trench evaluation undertaken for the proposed Gate Burton Energy Park. North of the railway line serving the former Cottam Power Station, previously undated cropmarks have been confirmed as a series of Romano-British ditches and gullies defining rectilinear enclosures, at least one ring gully, pits and a possible waterhole dated 1st-4th centuries AD [AEC032]. To the south of the railway line, further Romano-British ditches representing a series of enclosures, trackways and field systems [AEC033] were recorded. The value of these assets derives from their archaeological and historic interest and potential contribution to the understanding of Late Iron Age and Romano-British settlement activity and land management west of the River Trent and across the wider region. The assets are assessed as being of medium value.

8.9.425 The proposed works within the Cable Route Corridor may include topsoil stripping to create the 40m wide construction corridor, excavation of an open cut cable trench, jointing pits, drainage, temporary haul road and open cut trench crossings (OC5 and OC6), trenchless crossing platforms (T8) and trenchless crossing (T7).

8.9.426 The use embedded mitigation in the form of trenchless crossing beneath the discussed Cottam railway line will preserve a large area of the archaeological remains, reducing the impact to this asset. Nevertheless, the Scheme has the potential to result in the disturbance or loss of parts of the enclosure complex which would reduce the ability to understand its heritage interest.

8.9.427 This medium value asset would experience a permanent medium magnitude of impact, resulting in a **moderate adverse** significance of effect, which is considered to be **significant**.

Romano-British Settlement [AEC035]

8.9.428 To the west of the former Cottam Power Station, a dense concentration of archaeological features indicative of a small Romano-British settlement [AEC035] was recorded during the trial trench evaluation undertaken for the Gate Burton Energy Park. The features corresponded with a series of rectilinear enclosures identified from the geophysical survey. Finds recovered from the excavated features comprise animal bone, pottery, and CBM of Romano-British date. The medium value of this asset is derived from

its archaeological and historic interest and its ability to inform the understanding of Romano-British settlement patterns and agricultural economy of the period.

8.9.429 The proposed works within the Cable Route Corridor may include topsoil stripping to create the 40m wide construction corridor, excavation of an open cut cable trench, jointing pits, drainage and temporary haul road. The Scheme therefore has the potential to result in the disturbance or loss of part of asset which would reduce the ability to understand its heritage interest.

8.9.430 This medium value asset would experience a permanent medium magnitude of impact, resulting in a **moderate adverse** significance of effect, which is considered to be **significant**.

Medieval or Post-medieval Field Boundary [MNT6166]

8.9.431 On the southern side of Torksey Ferry Road a probable medieval or post-medieval boundary [MNT6166] is recorded crossing the southwest corner of the Order limits of the Cable Route Corridor. The boundary is defined by a single ditch approximately 450m long with some small breaks along its length. The ditch was also identified by the aerial photographic and LiDAR assessment and geophysical surveys undertaken for the proposed Gate Burton solar project. The low value of the asset is derived from its archaeological and historic interest providing evidence for medieval and post-medieval landscape development and enclosure.

8.9.432 The proposed works within the Cable Route Corridor may include topsoil stripping to create the 40m wide construction corridor, excavation of an open cut cable trench, jointing pits, drainage and temporary haul road. The Scheme therefore has the potential to result in the disturbance or loss of part of asset which would slightly reduce the ability to understand its heritage interest.

8.9.433 This low value asset would experience a permanent low magnitude of impact, resulting in a **negligible adverse** significance of effect, which is **not significant**.

Historic Landscape Character

8.9.434 Section 4.6 of **Appendix 8-2: Cultural Heritage Desk-based Assessment** of this ES [EN010142/APP/6.2] provides an assessment of the historic landscape character within the Order limits, with individual historic landscape character zones and types shown **Figure 8-5: Historic Landscape Characterisations** of this ES [EN010142/APP/6.3].

8.9.435 East of the River Trent, the Order limits extend across two different historic landscape character zones, with the eastern side of the Principal Site along the scarp and spring line of the Lincoln Cliff of defined as HCLZ NCL3: The Northern Cliff (The Cliff Edge Airfields). The majority of the Principal Site and Lincolnshire section of the Cable Route Corridor lie within HLCZ TVL1: The Trent Valley (The Northern Cliff Foothills).

8.9.436 These two HLCZs share a common essentially flat landscape and pattern of medium and large modern fields enlarged through boundary loss and the opening up of land for modern farm machinery. Despite the boundary loss,

the existing fieldscape retains time depth through the strong east-west grain of the medieval landscape which survives in many of the long linear parish boundaries, and a pattern of smaller enclosed fields reflecting the post-medieval enclosure of the medieval open fields, particularly those of Springthorpe and Heapham in the Principal Site, and Normanby-by Stow and Marton within the Cable Route Corridor. Elements of the medieval landscape survive in the form of at least one boundary exhibiting the reversed 'S' curve of ox ploughing, extant ridge and furrow earthworks [AEC003 and AEC042] and a remnant of the former medieval and post-medieval park pale [MLI54002] surrounding Glentworth Hall's deer park.

8.9.437 The modern fields retain a strong survival of the rectilinear layout of 18th and 19th century enclosure of the medieval open fields, predominantly bounded by hawthorn hedges, as seen on the 1842 Glenworth Tithe and 1886 Ordnance Survey maps. Scattered farmsteads, isolated dwellings and field barns provide further evidence for the character of the planned enclosure landscape, with a small number of parcels of woodland and isolated copses, of which Harpswell/Peters Wood, Blythe Close and Big Wood are the best examples.

8.9.438 HCLZ NCL3: The Northern Cliff (The Cliff Edge Airfields) and HLCZ TVL1: The Trent Valley (The Northern Cliff Foothills), retain sufficient historic landscape features, time depth and legibility to be considered as having a medium sensitivity to change as averagely preserved historic landscape character areas. They are therefore considered to be of medium value for the purpose of this assessment.

8.9.439 West of the River Trent the predominantly flat agricultural landscape of the Cable Route Corridor has greater granularity, with five separate historic landscape character types defined across the Order limits.

8.9.440 Four of these HLC types; patterns reflecting open fields, regularly laid out large geometric field patterns, irregular geometric field patterns and semi-regular field patterns share a mix of regular and irregular fields of various sizes demonstrating a good time depth through the survival of early enclosure of the medieval open fields, planned parliamentary enclosure during the 18th and 19th centuries, and the modern engrossment of fields through the removal of field boundaries. These HLC types are considered to be of medium value, being averagely preserved, with good legibility and having a medium sensitivity to change.

8.9.441 The modern urban areas HLC type of the Cottam Power Station and the village of Cottam, have extensively modified the layout and features of the earlier historic landscape and, while retaining some vestiges of 18th and 19th century planned enclosure. This HLC type is considered to have a low sensitivity to change, being limited by relatively poor time depth and coherence and is therefore assessed as being of low value.

8.9.442 Individual hedgerows considered to meet the criteria for 'important' hedgerows under the Hedgerows Regulations 1997 (Ref. 8-8) are identified in Table 4 of **Appendix 8-2: Cultural Heritage Desk-based Assessment** of this ES [EN010142/APP/6.2] and are considered to have a high sensitivity to

change contributing to the time depth of the historic landscape character zones and types.

8.9.443 Within the Principal Site, embedded mitigation which either preserves or enhances individual aspects of the historic landscape includes panel free buffers of 5 m from hedgerows, 15 m from all trees above 4 m height, and 10 m from watercourses, and ditches. In addition, extant ridge and furrow earthworks will be preserved within Sensitive Archaeological Sites. Solar PV panels have been relocated away from the parkland and designed landscape of the Harpswell Hall scheduled monument and historic villages of Springthorpe and Sturgate. Buffers have also been provided setting back Solar PV panels from residential properties within post-medieval farmsteads retaining their scattered pattern in the landscape, the existing fieldscape will also be retained and selected former hedgerows lost during the 20th century will be replanted.

8.9.444 Construction of the Scheme within the Principal Site would result in the long-term change of land-use from intensive agriculture to solar park renewable energy generation. Despite this, the Scheme preserves the pattern, layout and key boundaries and features of the historic landscape, enabling the grain of the two historic landscape character zones to retain their coherence, time depth and legibility. This is assessed as a low magnitude of impact on historic landscape character zones of medium value, resulting in a long-term **minor adverse** magnitude of impact, which is **not significant**.

8.9.445 The impact of constructing the Cable Route Corridor would have a limited duration after which the buried cable would not alter the current historic landscape character. As such, those elements of the historic landscape character zone and historic landscape character types within the Order limits would experience a very low magnitude of impact. For the HLCZ TVL1: The Trent Valley (The Northern Cliff Foothills) and the patterns reflecting open fields, regularly laid out large geometric field patterns, irregular geometric field patterns and semi-regular field patterns historic landscape character types of medium value, and the urban areas HLC type of low value, this would result in a temporary **negligible adverse** significance of effect. This is considered to be **not significant**.

Historic Important Hedgerows

8.9.446 Construction impacts on identified important, or probable important hedgerows, are summarised in **Table 8-9**.

8.9.447 A buffer of 5m from all hedgerows, where possible, based on the extent of the canopy drip line indicated on the topographic survey, has been established as set out in the **Framework CEMP [EN010142/APP/7.8]**.

8.9.448 Impacts from crossings, trenchless or open cut, are assessed against a worst-case scenario as micro-siting of these locations is unknown. Hedgerow removals as shown on the **Hedgerow Removal Plan [EN010142/APP/2.9]** and summarised within Schedule 12 of the **draft DCO [EN010142/APP/3.1]** have been assessed. These losses would not alter their status in terms of satisfying the criteria to be regarded 'important' under the Hedgerows Regulations 1997 (Ref. 8-8) but could alter the ability in

which they are understood or experienced as historic features in the landscape, eroding the historic boundaries they represent.

8.9.449 As set out within the **Framework LEMP [EN010142/APP/7.17]**, hedgerow reinstatement is proposed along the Cable Route Corridor where removals are required. The **Framework LEMP [EN010142/APP/7.17]** also sets out enhanced planting for hedgerows which are identified in **Table 8-9**.

Table 8-9: Historic Hedgerow Construction Impacts

Figure 8-6 Historic Important Hedgerow Ref.	Hedgerow Removal Plan Hedgerow Ref. [EN010142/APP/2.9]*	Potential Construction Impact
H1	H105, H155 and H100	Partial removal of H155 to facilitate access route
H2	No corresponding reference (classified as edge of woodland)	No impact
H3	No corresponding reference (classified as edge of woodland)	No impact
H4	H039, H120, H118	Access route, enhanced native planting, OC44, OC45, OC48, OC47, OC46, partial removal of H118
H5	H126a, H126b, LoT3	Partial removal of LoT3
H6	H068	No impact
H7	H071	No impact
H8	LoT2a, LoT2b, H11a	Proposed native hedgerow planting enhancement, partial removal of LoT2a
H9	No corresponding reference (classified as edge of woodland)	No impact
H10	H042	Proposed new native woodland planting enhancement
H11	H012a	Proposed native hedgerow planting enhancement
H12	H010	Proposed new native woodland planting enhancement
H13	H007, H006, H005, H003	Proposed new native woodland planting enhancement

Figure 8-6 Hedgerow Removal Plan Hedgerow Ref. [EN010142/APP/2.9]* Potential Construction Impact
Historic Important Hedgerow Ref.

Historic Important Hedgerow Ref.	Hedgerow Removal Plan Hedgerow Ref. [EN010142/APP/2.9]*	Potential Construction Impact
H14	H184, H259b	Partial removal of H184 and H259b to facilitate OC36, alternative cable route alignment
H15	H278, H276, H275	Partial removal of H276 to facilitate OC28, OC29
H16	H210	Partial removal of H210 to facilitate T18, OC26, Construction vehicle access
H17	H211, H284	Partial removal of H284 to facilitate OC25
H18	H212	Partial removal of H212 to facilitate OC25, Construction vehicle access
H19	H286	Partial removal of H286 to facilitate OC23, OC25, Construction vehicle access
H20	H232	No impact
H21	H233	Partial removal of H233 to facilitate highway improvement works
H22	H380	No impact
H23	H295	No impact
H24	H241	Partial removal of H241 for T16, T17, OC18, construction vehicle access
H25	H319	Partial removal of H319 may be required for alternative cable route alignment
H26	H316	Partial removal of H316 for T15, OC12, construction vehicle access, alternative cable route alignment
H27	H337	Partial removal of H337
H28	H328	Partial removal of H328
H29	H379	No impact
H30	H330, H332	Partial removal of H330 to facilitate OC8, construction vehicle access
H31	H340	No impact

** Note – Hedgerow references on the Hedgerow Removal Plan [EN010142/APP/2.9] have been assigned according to their ecological type and features. Therefore, one important historic hedgerow may have multiple hedgerow references on the Hedgerow Removal Plan [EN010142/APP/2.9]. Schedule 12 of the draft DCO [EN010142/APP/3.1] lists sections of the historic important hedgerow removals on the basis of the Hedgerow Removal Plan [EN010142/APP/2.9] hedgerow references.*

- 8.9.450 Hedgerows which will be impacted from removal resulting in gaps of less than 20m have been assessed as not affecting its integrity as an important hedgerow under the Hedgerows Regulations 1997 (Ref. 8-8).
- 8.9.451 Temporary removal of hedgerows in the Cable Route Corridor, before their reinstatement, would have a low magnitude of impact on assets of low value, resulting in a **negligible (not significant)** effect. Hedgerows will be reinstated where they have been removed during construction in the Principal Site, resulting in a **negligible (not significant)** effect. If any hedgerows removed by construction works are not reinstated within the Order limits, they may be permanently severed as historic landscape features affecting their value even if their status as important hedgerows is not altered. This would result in a permanent medium magnitude of impact on assets considered to be of low value, resulting in a **minor adverse (not significant) effect**.
- 8.9.452 Some of the hedgerows will have additional planting as part of the mitigation and habitat enhancement, as set out in the **Framework LEMP [EN010142/APP/7.17]**. This would enhance and enforce the historic boundaries and historic landscape features of the important hedgerows, filling in any previous gaps in their stretches.

Operation

- 8.9.453 Impacts during the long-term operation of the Scheme that may affect heritage assets include those experienced from:
- Security lighting with motion detectors;
 - Operational noise;
 - Traffic for operational access; and
 - Glint and glare.
- 8.9.454 **Chapter 3: Scheme Description** of this ES [EN010142/APP/6.1] states that permanent security lights with motion detectors will be used for security purposes around the electrical infrastructure, emergency access points to facilities within the Scheme and potentially at other pieces of critical infrastructure. No areas are proposed to be permanently lit. No impacts to heritage assets are therefore identified from lighting during the operational phase of the Scheme.
- 8.9.455 **Chapter 13: Noise and Vibration** of this ES [EN010142/APP/6.1] sets out embedded noise mitigation during the operational phase of the Scheme. The chapter reviews noise impacts from the Scheme during operation with overall plant noise emissions experienced at receptors likely to be perceived as a distinctive continuous and steady hum. Noise impacts on receptors were assessed as a worst-case scenario during the night period with all items of plant operating, concluding that there are not expected to be any significant adverse effects. The nearest non-residential heritage asset to the Scheme which are particularly sensitive to noise due to the tranquil setting is the scheduled monument Harpswell Hall [NHLE 1019068] and the Grade I listed Church of St Chad [NHLE 1309029], assessed in the noise chapter as NR2 concluding with non-significant effects from permanent noise emissions

from the Scheme infrastructure. Therefore, no long-term setting impacts from noise intrusion is predicted on these heritage assets.

8.9.456 No operational impacts from Scheme related traffic were assessed in **Chapter 16: Traffic and Access** of this ES [EN010142/APP/6.1], as agreed at scoping stage, due to the limited number of trips expected to be associated with the operational phase. No impacts to heritage assets are therefore identified from Scheme related traffic movements during the operational phase.

8.9.457 Glint and glare impacts from the solar panels has been assessed in **Chapter 17: Other Environmental Topics** of this ES [EN010142/APP/6.1] and in **Appendix 17-2 [EN010142/APP/6.2]**, which concluded that no impacts would be incurred on residential or ground-based receptors. No impacts to heritage assets are therefore identified from Scheme related glint and glare during the operational phase.

8.9.458 Planting of new hedges and trees will mature during the earlier years of the lifetime of the Scheme, with growth deemed sufficiently matured by year 15 following commencement of operation (refer to **Chapter 12: Landscape and Visual Amenity** of this ES [EN010142/APP/6.1]). Planting can mitigate views of the Scheme infrastructure from sensitive heritage assets as well as in general views when moving through the landscape. Many of the heritage assets assessed under the construction phase were for impacts caused by the physical presence of the Scheme within designed views or their settings. As such, the maturation of screen planting during the operational phase is not considered capable of reducing the magnitude of impact or significance of effect reported at construction. Therefore, the effect of the physical presence of the Scheme within an asset's setting or planned view, and within the historic landscape, identified during the construction phase will remain in place throughout the lifespan of the Scheme. No additional, or increase of, significant effects are identified through the operational phase.

8.9.459 It is not expected that the operation of the Scheme will result in any further intrusive ground activities. As such, no further physical impact to the archaeological resource is identified during the operational phase of the Scheme.

Decommissioning

8.9.460 The Scheme will be decommissioned by 2088.

8.9.461 During decommissioning of the Scheme, the solar panels and associated infrastructure will be removed in accordance with the relevant statutory process at that time. It is to be determined whether the 400kV cable in the Cable Route Corridor will remain in situ or removed as part of decommissioning, but for the purposes of this chapter it is assumed that the cable will be removed as a worst-case scenario.

8.9.462 It is expected that the selected method of decommissioning would have due regard to management measures set out within the **Framework DEMP [EN010142/APP/7.10]**, which will be secured through a DCO Requirement. Any future maintenance, decommissioning or reinstatement works would be subject to prevailing legislation, guidance and permitting regimes.

Landscape restoration and remediation to suitable surfaces would be undertaken, reinstating the rural landscape to its former aesthetic prior to construction.

- 8.9.463 A well-designed decommissioning process would not cause any ground disturbance beyond the already-disturbed footprint of the Scheme. Therefore, it is considered that decommissioning activities will have no direct physical impact upon archaeological remains, deposits or features. Potential harm to buried archaeological features from the removal of piles will be discussed with stakeholders and taken into consideration during the archaeological fieldwork and design to reduce impacts.
- 8.9.464 With regard to archaeological remains, it is assumed that during decommissioning of Scheme Solar PV panels, substations, Solar Stations, BESSs and associated infrastructure within the Principal Site and if necessary, the HV cable and associated infrastructure within the Cable Route Corridor, will be removed using methods and extents similar to the that of the construction phase. As a result, buried archaeological remains already removed during construction would not experience any further affects as a result of decommissioning.
- 8.9.465 While there is the potential for temporary setting impacts during the removal of the solar infrastructure, it is not anticipated these will cause additional impacts over and above those reported in this chapter relating to the construction of the Scheme within an asset's setting. Decommissioning impacts would be temporary and the duration would likely be shorter than those during construction, with a worst case 24-month decommissioning period assumed.
- 8.9.466 Upon completion of decommissioning, the long-term adverse effects from the Scheme infrastructure will have been reversed and will no longer exist. The setting of cultural heritage assets which have been impacted by the Scheme will be restored to the current baseline conditions, other than those where planting will remain as a permanent fixture in the landscape.

8.10 Additional Mitigation

- 8.10.1 The Scheme is assessed as having the potential to result in significant adverse effects to six non-designated archaeological assets (see **Table 8-10**). In accordance with the EIA methodology set out in **Chapter 5: EIA Methodology** of this ES [EN010142/APP/6.1], these assets have been considered for additional mitigation.
- 8.10.2 Where embedded mitigation or design measures cannot be employed to avoid or protect these heritage assets, and where reasonably practicable, significant adverse effects should be offset through the implementation of a programme of archaeological mitigation measures. These measures should comprise an appropriate programme of archaeological fieldwork, followed by assessment and reporting of the results and where appropriate publication.
- 8.10.3 Additional mitigation measures to offset the significant adverse effects arising from the disturbance or loss of buried archaeological remains by the Scheme would comprise archaeological excavation and recording (strip, map and sample excavation) of the archaeological remains prior to

construction. Details of the archaeological mitigation measures will be set out in an Archaeological Mitigation Strategy which will be submitted for approval and secured through a requirement of the **draft DCO [EN010142/APP/3.1]**.

Table 8-10: Additional Archaeological Mitigation (Significant Effects)

Asset	Additional Mitigation
Undated enclosure [AEC024]	Strip, map and sample excavation
Cropmark and Earthwork Features [AEC043]	Strip, map and sample excavation
Winter Camp of the Viking Great Army at Torksey [MLI125067]	Strip, map and sample excavation
Iron Age or Romano-British Enclosure Complex [AEC031 ; MNT15983]	Strip, map and sample excavation
Cropmark Complex [MNT4983 ; AEC032 and AEC033]	Strip, map and sample excavation in areas beyond the HDD preservation zone
Romano-British Settlement [AEC035]	Strip, map and sample excavation

8.10.4 Twenty-three non-designated heritage assets comprising buried archaeology and earthwork remains have been assessed as having potential to experience adverse effects that are considered not significant. These adverse effects, although not significant, would, nevertheless, result in the loss of the archaeological resource. Archaeology is a finite resource and as such this loss should be considered for being offset through additional archaeological mitigation as summarised in **Table 8-11**.

Table 8-11: Additional Archaeological Mitigation (Not Significant Effects)

Asset	Additional Mitigation
Romano-British Enclosure Complex [AEC011]	Strip, map and sample excavation
Late Iron Age to Romano-British Enclosure Complex [AEC015]	Archaeological monitoring and recording
Late Iron Age to Romano-British Field Enclosures [AEC014]	Archaeological monitoring and recording
Romano-British Enclosure Complex [AEC022]	Archaeological monitoring and recording

Asset	Additional Mitigation
Possible Trackway and Field Boundaries [AEC023 ;	Strip, map and sample excavation or archaeological monitoring and recording
Cropmark and Earthwork Features [AEC041]	Archaeological monitoring and recording
Cropmark and Earthwork Features [AEC043]	Archaeological monitoring and recording
Normanby-by-Stow Shrunken Medieval Village [MLI52445]	Archaeological monitoring and recording and earthwork recording
Possible Iron Age or Romano-British Field System [AEC028]	Archaeological monitoring and recording
Till Bridge Lane Roman Road [MLI50575]	Archaeological monitoring and recording
Late Iron Age or Romano-British Field System [AEC038]	Strip, map and sample excavation
Peat Deposits west of the River Trent [MNT27156]	Archaeological monitoring and recording and purposive geoarchaeological borehole assessment
Medieval or Post-medieval Field Boundary [MNT6166]	Archaeological monitoring and recording
Romano-British trackway and Field Boundaries [MLI52489]	Strip, map and sample excavation
Post-medieval Flood Defences [MLI52488]	Earthwork recording, archaeological monitoring and recording, and reinstatement
Medieval Deer Park Pale [MLI54002]	Archaeological monitoring and recording
Former Ridge and Furrow and Boundary Ditches [MLI86414]	Archaeological monitoring and recording
Demolished Post-medieval Farm [MLI118027]	Archaeological monitoring and recording
Demolished Post-medieval Farms [MLI118030]	Archaeological monitoring and recording
Demolished Post-medieval Farms [MLI118035]	Archaeological monitoring and recording
Demolished Post-medieval Farms [MLI118061]	Archaeological monitoring and recording
Undated Enclosure [MLI53953]	Archaeological monitoring and recording

Asset	Additional Mitigation
Ridge and Furrow Cultivation [MLI52492]	Archaeological monitoring and recording

- 8.10.5 Areas where access or site constraints prevented pre-application trial trench evaluation (e.g. Fields 16 and 127 of the Principal Site or individual land parcels within the Cable Route Corridor east of Stow Park), post-consent archaeological trial trench evaluation will be considered, where appropriate in consultation with the Archaeological Advisors to Lincolnshire County Council.
- 8.10.6 Where earthwork remains e.g. extant ridge and furrow are preserved as part of the embedded mitigation in Fields 16 and 55 of the Principal Site, additional earthwork recording may be required prior to the creation of the species rich grassland.
- 8.10.7 Additional mitigation measures for the Scheme will be agreed in principle in consultation with the Archaeological Advisors to Lincolnshire County Council, Nottinghamshire County Council and Bassetlaw District Council and set out in an Archaeological Mitigation Strategy which will be submitted for approval and secured through a requirement of the **draft DCO [EN010142/APP/3.1]**.
- 8.10.8 All archaeological mitigation works will be undertaken by an appropriately experienced and competent Archaeological Contractor in accordance with a Written Scheme of Investigation (WSI) that has been agreed with the Archaeological Advisors to Lincolnshire County Council, Nottinghamshire County Council and Bassetlaw District Council and approved in writing by the relevant Local Planning Authorities.
- 8.10.9 No additional mitigation is proposed for the operation and decommissioning of the Scheme.

8.11 Residual Effects

- 8.11.1 This section summarises the residual effects of the potentially significant effects associated with the Scheme on Cultural Heritage, as identified within Section 8.9 of this chapter, following the implementation of additional mitigation. Effects not listed were identified as not significant in Section 8.9 and not requiring additional mitigation. As set out within **Table 8-12** following the implementation of additional mitigation, all residual effects are considered to be not significant.
- 8.11.2 No potentially significant effects during operation and decommissioning were identified.

Table 8-12: Summary of Residual Effects (construction)

Heritage Asset	Sensitivity (Value)	Description of impact	Magnitude of impact	Significance of effect	Additional mitigation	Residual Effect after additional mitigation
Undated enclosure [AEC024]	Medium	Permanent disturbance or loss of archaeological remains during construction	Medium	Moderate Adverse (significant)	Archaeological excavation and recording (strip, map and sample)	Minor Adverse (not significant)
Cropmark and Earthwork Features [AEC043]	Medium	Permanent disturbance or loss of archaeological remains during construction	Medium	Moderate Adverse (significant)	Archaeological excavation and recording (strip, map and sample)	Minor Adverse (not significant)
Winter Camp of the Viking Great Army at Torksey [MLI125067]	High	Permanent disturbance or loss of archaeological remains during construction	Low	Moderate Adverse (significant)	Archaeological excavation and recording (strip, map and sample)	Minor Adverse (not significant)
Iron Age or Romano-British Enclosure	Medium	Permanent disturbance or loss of	Medium	Moderate Adverse (significant)	Archaeological excavation and	Minor Adverse (not significant)

Heritage Asset	Sensitivity (Value)	Description of impact	Magnitude of impact	Significance of effect	Additional mitigation	Residual Effect after additional mitigation
Complex [AEC031; MNT15983]		archaeological remains during construction			recording (strip, map and sample)	
Cropmark Complex [MNT4983; AEC032 and AEC033]	Medium	Permanent disturbance or loss of archaeological remains during construction	Medium	Moderate Adverse (significant)	Archaeological excavation and recording (strip, map and sample)	Minor Adverse (not significant)
Romano-British Settlement [AEC035]	Medium	Permanent disturbance or loss of archaeological remains during construction	Medium	Moderate Adverse (significant)	Archaeological excavation and recording (strip, map and sample)	Minor Adverse (not significant)

8.12 Cumulative Effects

8.12.1 An assessment of cumulative effects is presented in **Chapter 18: Cumulative Effects and Interactions** of this ES [EN010142/APP/6.1].

8.13 References

- Ref. 8-1. Department for Energy and Net Zero (November 2023). Overarching National Policy Statement Energy (EN-1). Available at: <https://assets.publishing.service.gov.uk/media/65bbfbd709fe1000f637052/overarching-nps-for-energy-en1.pdf> [Accessed 20 February 2024]
- Ref. 8-2. Department for Energy and Net Zero (November 2023). National Policy Statement for Renewable Energy Infrastructure (EN-3). Available at: <https://assets.publishing.service.gov.uk/media/65a7889996a5ec000d731aba/nps-renewable-energy-infrastructure-en3.pdf> [Accessed 12 March 2024]
- Ref. 8-3. Department for Levelling Up Homes and Communities (2023). National Planning Policy Framework. Available at: <https://www.gov.uk/guidance/national-planning-policy-framework> [Accessed 14 March 2023]
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- Ref. 8-12. Brown, H. (2012). Magnetometer survey of land north of Torksey, Lincolnshire. The University of York.
- Ref. 8-13. Wessex Archaeology. (2023b). Geoarchaeology Borehole Survey and Deposit Modelling [PINS Reference EN010142/APP/6.2]