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7. Cultural Heritage

7.1 Introduction

- 7.1.1 This chapter identifies and proposes measures to address the potential impacts and effects of the Scheme on Cultural Heritage during construction, operation (and maintenance), and decommissioning.
- 7.1.2 It considers potential impacts on the following:
- Designated heritage assets, including scheduled monuments, listed buildings, registered parks and gardens, and conservation areas; and
 - Non-designated heritage assets, including archaeological remains, historic buildings, and the historic landscape.
- 7.1.3 Cultural heritage comprises all aspects of the environment resulting from the interaction and relationships between people and places through time. The above aspects are referred to as heritage assets, i.e. buildings, monuments, sites, places, areas or landscapes identified as having a degree of significance due to their heritage interest that merit consideration in planning decisions.
- 7.1.4 This chapter:
- Details the requirements of key legislative and policy requirements and describes how the Scheme will consider them;
 - Explains how information on the existing and future environment has been collected (through desk-based studies, survey work and stakeholder consultation);
 - Describes the understanding of the existing and future baseline environment, based on the baseline information;
 - Explains any further information to be obtained through further consultation, desk-based studies, or surveys;
 - Describes the potential effects of the Scheme on cultural heritage; and
 - Describes potential mitigation measures, if required.
- 7.1.5 The cultural heritage baseline is identified in a Desk-based assessment (DBA) which is appended in **Appendix 7A: Heritage Desk Based Assessment** of this Environmental Statement (ES) [EN010118/APP/6.2]. This chapter is supported by the following figures [EN010118/APP/6.3].
- Figure 7-1: Archaeological Assets; and
 - Figure 7-2: Built Heritage Assets.
- 7.1.6 As described in **Chapter 2: The Scheme** of this ES [EN010118/APP/6.1], a 'Rochdale Envelope' approach has been used which involves assessing the maximum (and where relevant, the minimum) parameters for the Scheme where flexibility needs to be retained. For impact on Cultural Heritage both the Scheme's Design Principles and Concept Design Parameters have been consulted in order to arrive at a robust assessment of likely significant effects.

The Concept Design has been used to visualise the effects of the Scheme on above ground heritage assets (as it is not possible to build the Scheme based on maximum footprints for all components), using maximum heights allowed by the Design Principles. The Design Principles have then been considered to see if any maximum parameters result in any new or worse heritage effects than result from the Concept Design. For underground heritage, the Design Principles have been assessed.

7.2 Legislation and Planning Policy

7.2.1 Legislation, planning policy, and guidance relating to Cultural Heritage, and pertinent to the Order limits comprises:

Legislation

- a) Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (Ref 7-2);
- b) Infrastructure Planning (Decisions) Regulations 2010 (Ref 7-3);
- c) Planning Act 2008 (as amended) (Ref 7-4);
- d) Planning (Listed Buildings and Conservation Areas) Act 1990 (Ref 7-5) (excluding normal planning procedures, which are disapplied by the Development Consent Order (DCO) and the related authorisation process, which if granted, would encompass all of the normal consents required to authorise a project); and
- e) Ancient Monuments and Archaeological Areas Act 1979 (Ref 7-6) (as amended) (excluding normal planning procedures, which are disapplied by the DCO and the related authorisation process which, if granted, would encompass all of the normal consents required to authorise a project).

National Planning Policy

- a) National Policy Statement (NPS) EN-1 (Ref 7-9) with particular reference to Section 5.8 in relation to the significance, impact and recording of the historic environment;
- b) NPS EN-3 (Ref 7-10) with particular reference to balancing public benefits of renewable energy infrastructure against loss or harm to the significance of a designated heritage asset given the urgency of meeting the national targets for renewable energy supply and emissions reductions;
- c) NPS EN-5 (Ref 7-11) with particular reference to paragraph 2.8.9 in relation to the archaeological consequences of electricity line installation and considering the impacts of undergrounding;
- d) Draft NPS EN-1 (Ref 7-9) with particular reference to Section 5.9 in relation to the significance, impact and recording of the historic environment;
- e) Draft NPS EN-3 (Ref 7-10) with particular reference to paragraphs 2.12.3 and 2.12.4 in relation to balancing public benefits of renewable energy infrastructure against loss or harm to the significance of designated

heritage assets as well as section 2.53 in reference to the assessment of impacts to cultural heritage from solar farm developments; and

- f) National Planning Policy Framework (NPPF) (Ref 7-1) with particular reference to Section 16: Conserving and Enhancing the Historic Environment.

National Guidance

- a) Planning Practice Guidance, Conserving and enhancing the historic environment (Ref 7-12);
- b) Historic Environment Good Practice Advice in Planning Note 2. Managing Significance in Decision Taking in the Historic Environment. Historic England (Ref 7-13);
- c) Historic Environment Good Practice Advice in Planning Note 3. The Setting of Heritage Assets. Historic England (2nd edition, 2017) (Ref 7-14));
- d) Historic England Advice Note 12 Statements of Heritage Significance: Analysing Significance in Heritage Assets (2019) (Ref 7-15);
- e) Historic England Advice Note 15 Commercial Renewable Energy Development and the Historic Environment (2021) (Ref 7-16);
- f) Chartered Institute for Archaeologists, Code of Conduct and Standards and Guidance for Historic Environment Desk-based Assessment (2020) (Ref 7-17);
- g) Historic England Preserving Archaeological Remains: Decision-taking for Sites under Development (Ref 7-30); and
- h) Principles of Cultural Heritage Impact Assessment in the UK (2021) (Ref 7-31).

Local Planning Policy

- a) Braintree District Council Adopted Local Plan Review (2005) (Ref 7-18), with particular reference to Policy RLP 87: Protected Lanes;
- b) Braintree District Protected Lanes Assessment 2013 (Ref 7-19);
- c) Chelmsford District Council Protected Lanes Assessment 2009 (Ref 7-20);
- d) Chelmsford Local Plan Adopted May 2020 (Ref 7-21), with particular reference to:
 - Strategic Priority 1: Ensuring sustainable patterns of development;
 - Strategic Priority 7: Protecting and enhancing the Natural and Historic Environment, and the Green Belt;
 - Strategic Policy S2: Addressing climate change and flood risk;
 - Strategic Policy S3: Conserving and Enhancing the Historic Environment;
 - Policy DM13: Designated Heritage Assets;

- Policy DM14: Non-designated Heritage Assets; and
 - Policy DM15: Archaeology.
- e) Braintree District Council Local Development Framework: Core Strategy Adopted September 2011 (Ref 7-22);
- f) Section 1 of the Braintree District Council Local Plan 2013-2033 North Essex Authorities' Shared Strategic Section 1 Plan (adopted February 2021) (Ref 7-23), with particular reference to:
- Policy SP 1: Presumption in Favour of Sustainable Development; and
 - Policy SP 7: Place Shaping Principles.
- g) Section 2 of the Braintree District Council Local Plan (Emerging) (Ref 7-24), with particular reference to:
- Policy LLP 46: Protected Lanes;
 - Policy LLP 50: Built and Historic Environment;
 - Policy LLP 56: Conservation Areas;
 - Policy LLP 60: Heritage Assets and their Settings; and
 - Policy LLP 63: Archaeological Evaluation, Excavation and Recording.
- h) Hatfield Peverel Neighbourhood Development Plan 2015–2033 (made December 2019) (Ref 7-25) with reference to Policy HPE5; and
- i) Boreham Neighbourhood Plan (Emerging) (Ref 7-26).

7.3 Assessment Assumptions and Limitations

- 7.3.1 The assessment has been based on both the Design Principles, which presents the maximum parameters, and the Concept Design, which provides an illustration of a buildable scheme within the Design Principles. The former has been applied to the assessment of underground archaeology, based on the maximum areas that will be disturbed. The latter has been applied to the assessment of above ground heritage assets, which requires a visual impression of the Scheme to generate visually verified photomontages; although with the maximum heights allowed by the Design Principles shown in the photomontages. The Design Principles cannot be visualised because of the flexibility that allows solar PV, landscaping, and habitat areas to be built if Phase 2 of the BESS is not constructed and should not all the BoSS/Solar Stations be required.
- 7.3.2 A review of the Concept Design against the Design Principles confirmed that constructing and operating the Scheme in other ways allowed by the Design Principles would not result in a greater impact to designated and non-designated heritage assets. The photomontages for example include the maximum heights of all infrastructure and maximum area allowed by the Design Principles for the BESS and Longfield Substation, which are considered to have the same or greater impacts on heritage setting than if solar PV, landscaping, or habitat areas were constructed in the same areas.

- 7.3.3 Space for offsets from designated and non-designated built heritage assets and land within the Order limits required for mitigation are secured by Work No. 10 (Schedule 1 of the draft DCO) and the corresponding areas for Work No. 10 as shown on the Works Plan **[EN010118/APP/2.2]**, which are areas within the Order limits for landscape and biodiversity measures.
- 7.3.4 The baseline is drawn from the historic environment desk-based assessment (DBA) produced for the Scheme (**Appendix 7A: Heritage Desk Based Assessment** of the ES). It is assumed that data therein provided by third parties is accurate at the time of reporting.
- 7.3.5 While an archive visit was carried out as part of the baseline research, access to historic maps and documents at the Essex Record Office was limited due to COVID-19 restrictions. Some estates maps and parish tithe maps could be viewed but no facilities allowing their reproduction were available. As such, these maps are referenced in the DBA (**Appendix 7A: Heritage Desk Based Assessment** of the ES) but not included in the map regression. This does not detract from the assessment and does not alter the conclusions or recommendations of this chapter. Digitised Ordnance Survey maps were obtained through an external service and are presented in the DBA (**Appendix 7A: Heritage Desk Based Assessment** of the ES) and is considered sufficient to inform this ES chapter.
- 7.3.6 Archaeological evaluation in the form of a geophysical (magnetometry) survey and trial trenching (**Appendix 7A: Heritage Desk Based Assessment** of the ES) have been undertaken, and the results have been incorporated into this assessment. Three fields totalling 53ha were not available for geophysical survey due to the presence of mature crops. However, given the quality of the magnetometry data, the georectified aerial and LiDAR data is considered sufficiently robust to inform the archaeological baseline in these areas. The programme of archaeological mitigation proposed in Section 7.9 acknowledges that additional monitoring of intrusive works may be required in these fields nonetheless.
- 7.3.7 Furthermore, one of the sites identified for trial trenching (Site A) could not be accessed due to lack of permission from landowner despite efforts being made to gain access to this area. Several curvilinear cropmarks are identified from aerial photographs in this area that indicate a potential for archaeological remains to be present. Intrusive activities will be micro-sited to avoid these and a programme of archaeological mitigation will be carried out during construction as presented in Section 7.9. This is not considered a limitation to the assessment; the impacts and mitigation can be adequately understood based on the DBA and aerial and LiDAR data.

7.4 Assessment Methodology

Study Area

- 7.4.1 The study area for this assessment extends to 1km from the Order limits for all cultural heritage assets (**Figures 7-1 and 7-2**) **[EN010118/APP/6.3]**, which is considered sufficient to assess the potential for archaeological remains to be present within the Order limits and to assess the potential changes to the setting of assets of lower significance (non-designated and Grade II listed

buildings and Registered Parks and Gardens). Designated heritage assets of the highest significance (as defined in NPS EN-1 and NPPF, namely World Heritage Sites, Scheduled Monuments (SMs), Grade I, Grade II* listed buildings, or Registered Parks and Gardens) are also considered outside of the 1km study area, within an area up to 3km beyond the Order limits. This extended study area excludes Conservation Areas although highly graded assets within conservation areas have been individually considered. Assets within this 3km area are only discussed where the wider landscape forms a key contributing factor in their heritage significance, in accordance with Historic England guidance¹, and where this has the potential to be affected by the Scheme.

- 7.4.2 Cross-reference has been made to the Zone of Theoretical Visibility (ZTV) prepared to support the Landscape and Visual Impact Assessment (**Chapter 10: Landscape and Visual Amenity of the ES [EN010118/APP/6.1]**) to highlight any potential intervisibility between the Scheme and the assets (as shown in **Figure 10-8 and 10-9 [EN010118/APP/6.3]**); however, this assessment also takes into consideration the fact that setting goes beyond visual relationships. This will ensure that the assessment is proportionate, in accordance with the requirements of the NPS EN-1 paragraph 5.8.8 (Ref 7-9) and NPS EN-3 paragraph 2.5.33 (Ref 7-10) and in line with the NPPF paragraphs 198-203 (Ref 7-1), draft NPS-EN1 paragraphs 5.9.10-5.9.11 (Ref 7-9), and draft NPS EN-3 paragraphs 2.53.3 and 2.53.5 (Ref 7-10). A number of viewpoints have been prepared as part of the Landscape and Visual Impact Assessment for the ES. The conclusions outlined in this assessment will be validated for these viewpoints. Locations of proposed viewpoints are discussed within **Chapter 10: Landscape and Visual Amenity** of the ES and shown in **Figure 10-1 [EN010118/APP/6.3]** and have been agreed with the Host Authorities (Essex County Council, Chelmsford City Council, and Braintree District Council).
- 7.4.3 Assets with grouped significance, where their significance is enhanced by their association with other assets, are considered together. This includes historic buildings (designated and non-designated) located within conservation areas where they have been assessed for the contribution that they make to the historic and architectural interest of that area. Those assets which have significance that transcends the wider grouping have been discussed separately.
- 7.4.4 The purpose of the study area is for data capture, encompassing heritage assets, both designated and non-designated, including archaeological sites and monuments, historic buildings, conservation areas and registered parks and gardens, together with the relevant historic landscape characterisation. All of the captured data has been reviewed (**Appendix 7A: Heritage Desk Based Assessment** of this ES), and those assets potentially affected by the Scheme have been taken forward into this ES chapter.

Sources of Information

- 7.4.5 Sources of information consulted include:

¹ • Historic Environment Good Practice Advice in Planning Note 3. The Setting of Heritage Assets. Historic England (2nd edition, 2017) (Ref 7-14))

- a) National Heritage List for England (NHLE);
- b) Essex Historic Environment Record (HER);
- c) Chelmsford City Council for information on Conservation Areas, Protected Lanes, and Locally Listed buildings;
- d) Braintree District Council for information on Conservation Areas and Protected Lanes;
- e) Portable Antiquities Scheme (PAS);
- f) The Essex Record Office;
- g) Aerial photographs obtained from Google Earth and Essex Place Services;
- h) LiDAR (Environment Agency);
- i) Published and unpublished literature in relation to the archaeological and historical record for the Scheme and study area;
- j) British Geological Survey (BGS) Geology of Britain Viewer; and
- k) Online bibliographic resources such as the Archaeological Data Service (ADS) and the British and Irish Archaeological Bibliography (BIAB).

7.4.6 An initial site walkover survey was undertaken on the 3 November and 4 November 2020 to record the survival, extent, condition, setting and significance of cultural heritage assets within the Order limits and to identify potentially affected assets including listed buildings, conservation areas and registered parks and gardens within the 3km study area. The setting of these heritage assets was also identified and detailed notes taken to inform the extent and contribution of the setting to the significance of the heritage assets.

7.4.7 An assessment of rectified aerial photographs and LiDAR data (**Appendix 7B: Aerial Investigation and Mapping Report of this ES [EN010118/APP/6.2]**; Ref 7-27) was completed as part of the baseline research in order to identify cropmark evidence of possible archaeological remains.

7.4.8 Archaeological evaluations were also undertaken to refine and augment the desk-based data, including a geophysical survey (detailed magnetometry) of the whole scheme and targeted trial trenching. The scope and specification of each field investigation have been set out in Written Scheme of Investigations (WSI), which were submitted for approval to the County Archaeologist for Essex in August 2020 (detailed magnetometry) and June 2021 (trial trenching). The first phase of this, comprising geophysical (magnetometer) survey, was undertaken as agreed with the Essex County Archaeologist on 9 September 2020 while the trial was carried out in July-August 2021. The results of these surveys (**Appendix 7C: Geophysical Survey**; Ref 7-28; **Appendix 7D: Trial Trenching Report**; Ref 7-29) have been incorporated in the ES [EN010118/APP/6.2] in Section 7.6.

Impact Assessment Methodology

7.4.9 This section sets out the approach to the assessment of the potential impacts of the Scheme on designated and non-designated heritage assets. The objective of this assessment is to identify any effects upon cultural heritage

receptors that are likely to arise from construction, operation and maintenance, and decommissioning of the Scheme.

- 7.4.10 Identified cultural heritage assets are numbered with their National Heritage List for England (NHLE) numbers or their Historic Environment Record (HER) numbers, issued by Essex County Council (ECC). These refer to the assets illustrated on **Figure 7-1** and **Figure 7-2 [EN010118/APP/6.3]** and the list of all identified sites is listed in **Appendix 7A: Heritage Desk Based Assessment** of this ES.
- 7.4.11 The principles of the impact assessment methodology rest upon independently evaluating the significance of the cultural heritage resources and the magnitude of impact upon that significance. 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 or adverse.
- 7.4.12 The cultural heritage assessment includes an assessment of the heritage significance of potentially affected assets, in line with NPS EN-1 (Ref 7-9). This requires the provision of information sufficient to enable adequate understanding of the potential impacts on the significance of any heritage asset (paragraph 5.8.10). This is consistent with the requirements of the NPPF (Ref 7-1) paragraphs 194 and 195). Both documents also require this assessment to take account of changes to both the physical asset and its setting.
- 7.4.13 NPS EN-1 defines the value of heritage assets as derived from their perceived value to this and future generations because of its heritage interest (Ref 7-9; paragraph 5.8.2). NPS EN-1 (Ref 7-9) and the NPPF (Ref 7-1) set out criteria which should be considered when assessing the significance of cultural heritage assets, which include archaeological, architectural, artistic and historic interest. These criteria have been used in the assessment of significance for each affected asset and this information, in conjunction with professional judgement, has been used to assess the value of heritage assets.
- 7.4.14 Both documents relate to 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 (Ref 7-9 paragraph 5.9.22) and NPPF (Ref 7-1 paragraphs 200-201) 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'. 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 has been determined using professional judgement and is provided in **Appendix E: Designated Heritage Assets Harm Statement** within the Planning Statement [EN010118/APP/7.2].

Significance Criteria

- 7.4.15 The value (also referred to as its 'heritage significance') of a heritage asset is derived from its heritage interest which may be archaeological, architectural, artistic, or historic. The significance of a place is defined by the sum of its

heritage interests. Taking these criteria into account, each identified heritage asset can be assigned a level of heritage value in accordance with the criteria set out in **Table 7-1**.

Table 7-1 Criteria for Determining the Value of Heritage Assets

Heritage Value	Criteria
High	Assets of international importance, such as World Heritage Sites Grade I and II* listed buildings Grade I and II* registered historic parks and gardens Registered battlefields Scheduled monuments Non-designated archaeological assets of schedulable quality and importance
Medium	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
Low	Non-designated heritage assets of a local resource value as identified through consultation Locally listed buildings 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
Very Low	Assets identified on national or regional databases, but which have no archaeological, architectural, artistic or historic value. Assets whose values are compromised by poor preservation or survival of contextual associations to justify inclusion into a higher grade. Landscape with no or little significant historical merit.

7.4.16 When professional judgement is considered, some sites may not fit into the specified category presented in **Table 7-1** above. Each heritage asset is assessed on an individual basis and considers regional variations and individual qualities of sites, including the contribution made by its setting.

7.4.17 Having identified the heritage value of the heritage asset, the next stage in the assessment is to identify the level and degree of impact to an asset arising from the Scheme. Potential impacts are defined as a change resulting from the Scheme which affects a heritage asset. The impacts of a development upon heritage assets can be positive or negative; direct or indirect; long term or temporary; and/or cumulative. Impacts may arise during construction, operation and decommissioning. Impacts can occur to the physical fabric of the asset or affect its 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 as a result of changes to setting are split between those resulting from construction activities which are short-term, and those considered to last for the duration of the development. These are considered to be long-term but can be reversed upon decommissioning.

7.4.18 The level and degree of impact (impact rating) is assigned by reference to a four-level scale as set out in **Table 7-2** below. The level of impact takes

account of mitigation measures which have been embedded within the Scheme as part of the design development process (embedded mitigation, see Section 7.7).

Table 7-2 Criteria for Determining the Magnitude of Impact on Heritage Assets

Magnitude of Impact	Description of Impact
High	Change such that the heritage significance of the asset is totally altered or destroyed through physical impact. Comprehensive change to setting affecting its heritage significance, resulting in a serious loss in our ability to understand and appreciate the asset.
Medium	Change such that the heritage significance of the asset is affected, but not destroyed, through physical change (including partial loss). Noticeably different change to setting affecting significance, resulting in erosion in our ability to understand and appreciate the asset.
Low	Change such that the heritage significance of the asset is slightly affected through physical alteration. Slight change to setting affecting its heritage significance resulting in a change in our ability to understand and appreciate the asset.
Very low	Changes to the asset that hardly affect heritage significance. Minimal change to the setting of an asset that have little effect on its heritage significance resulting in no real change in our ability to understand and appreciate the asset.

7.4.19 An assessment to classify the effect, having taken into consideration any embedded mitigation, is determined using the matrix within **Chapter 5: EIA Methodology** of this ES [EN010118/APP/6.1] which takes account of the significance (heritage value) of the asset (**Table 7-1**) and the magnitude of impact (**Table 7-2**). A consideration is then made of these effects in light of proposed mitigation, resulting in residual effects following mitigation.

7.4.20 This chapter considers that major or moderate effects are significant for the purposes of the EIA Regulations, in accordance with standard EIA practice.

7.5 Stakeholder Engagement

7.5.1 Stakeholders for the Scheme include statutory consultees, land managers, landowners, heritage interest groups, academics, and local communities. In addition to the statutory consultation process as described in **Chapter 4: Consultation** of the ES [EN010118/APP/6.1], there has been ongoing engagement with statutory and formal consultees to steer the development of the Scheme.

7.5.2 Statutory and non-statutory bodies have been consulted as part of the assessment process to obtain background data, information and records concerning cultural heritage assets within defined study areas, and to develop the assessment scope.

- 7.5.3 Consultation has been carried out with the Planning Archaeologists at ECC regarding geophysical surveys and archaeological evaluation between September 2020 and August 2021.
- 7.5.4 Consultation to date has been outlined in **Table 7-3**. This includes post-scoping consultation responses by ECC, Chelmsford City Council (CCC) and Braintree District Council (BDC), and Historic England.

Table 7-3: Main matters raised during consultation

Consultee	Main matter raised	How has the concern been addressed	Location of response in chapter
Planning Inspectorate	The ES should contain a robust justification to support the study areas and sensitive receptors selected. Make clear how the approach taken ensures that assets with long views to or from the site have been identified. Endeavour to agree the approach and sensitive receptors with relevant consultees. Ensure the study areas and locations of assets are shown on supporting plans.	The cultural heritage study area has been justified and the approach agreed with ECC. An extended study area of 3km has been used for of the highest significance (Grade I and II* listed buildings and Scheduled Monuments). Assets within the 3km study area are discussed where the wider landscape forms a key contributing factor in their significance and where this has the potential to be affected by the Scheme. Long views have taken the ZTV into consideration when selecting the study area to adequately assess potential effects on the setting of designated assets.	Justification for the study area is discussed in Section 7.4 and the study areas are shown on Figures 7-1 and 7-2 [EN010118/APP/6.3] .
Planning Inspectorate	Review the distances between the Scheme and sensitive receptors and ensure the correct distances are presented in the ES.	The distances have been reviewed and are accurate.	Throughout Chapter 7: Cultural Heritage and within the Desk-Based Assessment presented in Appendix 7A: Heritage Desk Based Assessment of this ES [EN010118/APP/6.2] .
Planning Inspectorate	Impacts to Protected Lanes and byways that are likely to result	The Scheme will only alter the setting of these byways without	Assessment of the heritage aspects of the Protected Lanes is

Consultee	Main matter raised	How has the concern been addressed	Location of response in chapter
	<p>in significant effects should be assessed and the findings cross-referenced between the Cultural Heritage, LVIA and Transport and Access ES chapters.</p>	<p>directly truncating them. All impacts to the Protected Lanes and byways have been addressed within the ES.</p>	<p>presented in Section 7.8.92. Views from the various lanes and byways are also addressed in Chapter 10: Landscape and Visual Amenity of this ES [EN010118/APP/6.1] in Section 10.8. Efforts to mitigate effects through traffic are addressed in Chapter 13: Transport and Access Sections 13.7 and 13.9 of this ES [EN010118/APP/6.1].</p>
<p>Planning Inspectorate</p>	<p>Label non-designated archaeological assets on the relevant figure within the ES. Identify and assess potential impacts on non-designated heritage and archaeological assets and their setting, including any archaeological features revealed during archaeological evaluations, where significant effects are likely.</p>	<p>Non-designated archaeological assets have been labelled on the relevant figure and within this ES chapter the impact on these and non-designated heritage assets from the Scheme has been assessed.</p>	<p>All non-designated archaeological assets are shown on Figure 7-1 [EN010118/APP/6.3] and the impacts of the Scheme on these are presented in Section 7.8.</p>
<p>Planning Inspectorate</p>	<p>The Cultural Heritage ES chapter should assess any impacts from noise and vibration during construction and decommissioning of the Scheme.</p> <p>The ES assessment of impacts to setting should consider other relevant factors such as dust, traffic, lighting, glint and glare and changes to land use, cross-referencing to other aspect chapters as appropriate.</p>	<p>Impacts during the construction of the Scheme which are likely to result in significant effects on the setting of heritage assets have been assessed. Operational effects including alterations to setting from noise, vibration, light, traffic, light, etc., which may result in loss of significance have been assessed as part of this ES. No significant effects have been identified during operation.</p>	<p>Impacts during construction, operation and decommissioning of the Scheme which are likely to result in significant effects on the setting of heritage assets are assessed in Section 7.8. This includes the effects of noise, vibration, light, traffic, etc.</p>

Consultee	Main matter raised	How has the concern been addressed	Location of response in chapter
<p>Planning Inspectorate</p>	<p>The assessment of impacts to buried archaeology in the ES should include (but not be limited to) those from the installation and removal of piling, cable trenching, any tracking platforms and any deep ploughing, along with any alterations to drainage patterns or dewatering. The assessment should include impacts from both construction and decommissioning.</p> <p>Where uncertainty exists and flexibility is required, the assessment should be based on a worst-case scenario. The assessment should take into account the guidance contained in Historic England's guidance document 'Preserving Archaeological Remains'.</p>	<p>All potential impacts to buried archaeology have been considered as part of this ES chapter. The report has taken a worst-case scenario approach where design information was uncertain and is based on the latest relevant guidance.</p>	<p>The methodology (Section 7.4) is in line with this requirement.</p>
<p>Planning Inspectorate</p>	<p>The Applicant should ensure that the information used to inform the assessment is robust and allows for suitable identification of assets likely to be impacted by the Scheme.</p> <p>The Applicant should make effort to agree the need for intrusive investigations (paragraph 7.7.1 of the Scoping Report indicates that intrusive investigations may be carried out) with relevant consultation bodies.</p>	<p>The information used for the impact assessment includes an up-to-date baseline compiled from all relevant and available sources as well as a programme of geophysical survey, an assessment of aerial photographs and LiDAR data, and a programme of intrusive archaeological trial trenching has been agreed with ECC</p> <p>All assets identified through desk-based work, non-intrusive, and intrusive surveys</p>	<p>The results of the geophysical survey and aerial and LiDAR assessment are presented in: Appendix 7B: Aerial Investigation and Mapping Report and Appendix 7C: Geophysical Survey of this ES [EN010118/APP/6.2] and assets identified included in the impact assessment below (Section 7.8). A programme of trial trenching, the scope of which was agreed with ECC, has also been carried out.</p>

Consultee	Main matter raised	How has the concern been addressed	Location of response in chapter
	Where necessary intrusive investigations should be completed prior to submission of the DCO application.	have been assessed where possible. A few assets remain to be investigated prior to construction as agreed with ECC.	(Appendix 7D: Trial Trenching Report) out and the results are integrated in the ES (Section 7.8).
Planning Inspectorate	The ES should describe any proposed mitigation measures and how these would be secured through the DCO, including proposals for the recording of any archaeology which would be permanently lost as a result of the Scheme. Effort should be made to agree the necessary measures with relevant consultation bodies.	Proposed mitigation measures are presented in this ES chapter. Where appropriate, relevant mitigation measures will be secured by requirements in the DCO as part of the Construction Environmental Management Plan (CEMP), Volume 7 of this ES [EN010118/APP/7.10] .	Mitigation measures are presented in Sections 7.7 and 7.9.
ECC	It would be preferable to mount solar panels on steel frames that are pile driven into the ground and to keep cabling above ground where possible, there would be a cumulative effect of many metres of cabling on below ground archaeological remains. Similarly, Overhead Power Lines would be preferred from this perspective to avoid impact on the archaeological resource.	Solar PV panels will be mounted on driven piles and, where possible, cabling will be above ground and mounted on the PV tables. No new overhead powerlines are planned to limit other environmental impacts, such as landscape and visual impacts.	The latest design is presented in Chapter 2: The Scheme .
ECC	Recommended that a programme of aerial rectification be completed to allow for greater accuracy of known cropmark features and the potential for the identification of any	A programme of digital rectification of aerial photographs and LiDAR data has been undertaken.	The results of this assessment are presented in: Appendix 7B: Aerial Investigation and Mapping Report of this ES.

Consultee	Main matter raised	How has the concern been addressed	Location of response in chapter
	unrecorded aerial cropmark features.		
CCC	<p>The methodology should include identification of Protected Lanes.</p> <p>There should be further assessment of other buildings, structures and features within the study area to include all non-designated heritage assets.</p> <p>There should be a clearly defined strategy to avoid and minimise of mitigate the impact on the historic environment.</p> <p>The criteria for assessing heritage value (Table 7-1) should include grade II listed buildings within the 'high' section as their structures are designated for their national importance.</p>	<p>Protected Lanes were identified in Local Planning Policy documentation and assessed accordingly.</p> <p>Non-designated built heritage assets in close proximity to the Order limits have been identified in the baseline and assessed in this ES chapter.</p> <p>The Scheme will only alter the setting of these byways without directly truncating them. The Scheme is not expected to result in significant effects to historic byways. Assessment of the Protected Lanes has been completed and included in the ES.</p> <p>The NPS EN-1 (Ref 7-9 para. 5.8.14) and the NPPF make a distinction between grade II listed buildings and registered parks and gardens and 'assets of the highest significance, notably scheduled monuments, protected wreck sites, registered battlefields, grade I and II* listed buildings, grade I and II* registered parks and gardens, and World Heritage Sites. This chapter reflects this distinction, treating grade II listed buildings as being of medium heritage value and grade I and II* listed buildings as being of high heritage</p>	<p>The methodology includes the identification of Protected Lanes.</p> <p>Impacts to relevant non-designated heritage assets through changes to their setting is fully assessed in Section 7.8 in line with the methodology outlined in Section 7.4.</p> <p>Embedded mitigation measures are described in Section 7.5 and in assessments of individual assets in Section 7.8. Additional Mitigation and Enhancement Measures are described in Section 7.9.</p> <p>See Section 7.8.</p>

Consultee	Main matter raised	How has the concern been addressed	Location of response in chapter
		<p>value. As noted in paragraph 7.4.15 of this ES chapter 'When professional judgement is considered, some sites may not fit into the specified category presented in Table 7-1 Criteria for Determining the Value of Heritage Assets Each heritage asset is assessed on an individual basis and considers regional variations and individual qualities of sites, including the contribution made by its setting.' On this basis, two non-designated built heritage assets have been treated as being of medium rather than low heritage value within this ES chapter.</p>	
<p>CCC</p>	<p>Chapter 7: Cultural Heritage should reference Strategic Priority 7 Conserving and enhancing the natural and historic environment, and the Green Belt.</p>	<p>The assessment takes into account the Chelmsford Local Plan (Ref 7-18) and the relevant policies therein, including Strategic Policy S3, Strategic Priority 7, DM13, DM14, and DM15.</p>	<p>See Section 7.8.</p>
<p>BDC</p>	<p>Very careful consideration should be given to minimising the proposals impact upon listed buildings and in particular upon Ringers Farm.</p>	<p>The design has been informed by built heritage considerations and impacts to listed buildings have been minimised wherever possible. Advice on protection of the setting of Ringers Farm has been incorporated into the design.</p>	<p>Refer to section 7.7 and Table 7-5.</p>
<p>BDC</p>	<p>The impact of the proposal upon the</p>	<p>Identification of and assessment of impact</p>	<p>Identification of and assessment of impact</p>

Consultee	Main matter raised	How has the concern been addressed	Location of response in chapter
	<p>setting of the Protected Lane which crosses the site to the north-west of Ringer's Wood is also of concern.</p>	<p>to Protected Lanes has been undertaken in line with BDC and ECC requirements.</p>	<p>to Protected Lanes is presented in Section 7.8.92.</p>
<p>Terling and Fairstead Parish Council (TFPC)</p>	<p>Chapter 7: Cultural Heritage should assess the impact of noise/vibration on heritage assets.</p> <p>Impact on non-designated built heritage assets should be assessed.</p> <p>Include the Historic Terling Group in future consultation.</p>	<p>The impacts of noise/vibration have been assessed within this ES.</p> <p>Impact on non-designated built heritage assets has been assessed in this ES chapter.</p> <p>The Historic Terling Group has been added to the list of consultees for public engagement.</p>	<p>The assessment of impacts to non-designated assets is presented in Section 7.8 in line with the methodology outlined in Section 7.4.</p>
<p>Hatfield Peverel Parish Council (HPPC)</p>	<p>There is the potential for a very high cumulative significant harm effect given the number of heritage assets in close proximity to the site.</p>	<p>Where assets have clear group value and/or setting relationships and the scheme has the potential to interfere with this value or relationship the assessment has taken this into account. In cases where there is no group value or setting relationship, impact on the asset is assessed in its own right following accepted methodology.</p>	<p>Refer to Section 7.8, Construction effects.</p>
<p>Historic England</p>	<p>We recommend that conservation staff at Chelmsford City Council and Place Services, who provide conservation advice to Braintree District Council, together with the archaeological staff at the County Council are involved in the development of this assessment.</p>	<p>Conservation officers at Chelmsford City Council and Place Services and the archaeological officers at ECC have been consulted throughout the production of this assessment.</p>	<p>An overview of stakeholder engagement is presented above (Section 7.5) and relevant points taken in throughout the document.</p>

Consultee	Main matter raised	How has the concern been addressed	Location of response in chapter
Historic England	Assessments of setting should not be restricted to visual impact, the potential impact which associated activities (such as construction, servicing and maintenance, and associated traffic) might have upon perceptions, understanding and appreciation of the heritage assets in the area should also be assessed.	The setting of heritage assets has been fully considered in line with the latest legislation and guidance, including Historic England's Historic Environment Good Practice Advice in Planning Note 3: The Setting of Heritage Assets (Ref 7-14) and Historic England's Advice Note 12 Statements of Heritage Significance: Analysing Significance in Heritage Assets (Ref 7-15).	The setting of relevant heritage assets is defined within Appendix 7A: Heritage Desk Based Assessment of this ES and impacts to the significance of these assets through changes to their setting is fully assessed in Section 7.8 in line with the methodology outlined in Section 7.4.
Historic England	The EIA should use the ideas of benefit, harm and loss (as described in the NPS EN-1 and NPPF) to set out 'what matters and why' in terms of the heritage assets' significance and setting, together with the effects of the development upon them.	An assessment of benefit and harm on the cultural heritage resource as a result of the Scheme is presented in this ES.	The assessment of benefit and/or harm on individual assets is concluded in Appendix E: Designated Heritage Assets Harm Statement , of the Planning Statement [EN010118/APP/7.2].
Historic England	Consider the potential impacts on the non-designated features of historic, architectural, archaeological or artistic interest.	An assessment of impacts on the non-designated features of historic, architectural, archaeological or artistic interest is included in this ES chapter.	The assessment of impacts to non-designated assets is presented in Section 7.8 in line with the methodology outlined in Section 7.4
Historic England	Take account of the potential impact which associated activities (such as construction, servicing and maintenance, and associated traffic) might have upon perceptions, understanding and appreciation of the	Potential impacts from construction and operation phases have been assessed in this ES chapter.	The assessment of impacts to designated and non-designated assets is presented in Section 7.8 in line with the methodology outlined in Section 7.4.

Consultee	Main matter raised	How has the concern been addressed	Location of response in chapter
	heritage assets in the area.		
Historic England	Consider, where appropriate, the likelihood of alterations to drainage patterns that might lead to in situ decomposition or destruction of below ground archaeological remains and deposits, and can also lead to subsidence of buildings and monuments.	The shallow nature of intrusive activities would not cause changes to groundwater drainage pattern that could lead to the destruction of archaeological remains or deposits leading to significant effects.	This is considered in the ES and takes into account the data presented in Chapter 9: Water Environment of the ES [EN010118/APP/6.1].

7.6 Baseline Conditions

- 7.6.1 This section describes the baseline environmental characteristics for the Scheme and surrounding areas with specific reference to Cultural Heritage.
- 7.6.2 The Scheme occupies an area which has largely not been subject to previous archaeological study. Desk based assessments detailing the heritage baseline, including the historical background for the Site and a statement of significance for each cultural heritage asset likely to be impacted by the Scheme are included in **Appendix 7A: Heritage Desk Based Assessment** of this ES. Designated and non-designated heritage assets are shown on **Figure 7-1 Figure 7-2 [EN010118/APP/6.3]** and are summarised below.
- 7.6.3 All assets identified within the 1km study area, irrespective of whether they would be affected by the Scheme, are listed in **Appendix 7A: Heritage Desk Based Assessment**. Each has been assigned a Unique Identity Number (UID), with:
- Archaeological assets prefixed A;
 - Designated built heritage assets prefixed DBH;
 - Non-designated built heritage assets prefixed NBH;
 - Conservation areas prefixed C; and
 - Registered parks and gardens prefixed RPG.
- 7.6.4 Throughout the baseline, assets of the highest significance (value), including Grade I and II* listed buildings and Scheduled Monuments, located outside the 1km study area, but within the wider 3km study area, which have the potential to be affected by changes in their setting have been identified and assigned a Unique Identity Number (UID). These were examined to establish their current and historic setting in order to understand whether changes from the Scheme would affect the ability to understand and appreciate the assets

and thus affect their heritage significance, given the particular nature of that heritage significance. The setting of these assets was reviewed through a combination of site survey, research and professional judgement and the ZTV prepared by the Landscape and Visual Impact Assessment (LVIA) team was consulted. This can be found in **Chapter 10: Landscape and Visual Amenity, Figure 10-11** of this ES [EN010118/APP/6.3].

- 7.6.5 Assets located outside the 1km study area, but within the wider 3km study area, which do not have the potential to be affected by changes in their setting have not been assigned a UID but are referred to by their NHLE number.

Existing Baseline

Scheduled monuments

- 7.6.6 There are no scheduled monuments within the Order limits or within 1km of it.
- 7.6.7 There are three scheduled monuments within the 3km study area. Great Loyes moated site and fishpond (NHLE 1008979) is approximately 2.8km to the east of the Order limits; Gubbion's Hall moated site (NHLE 1016802) is approximately 2.3km to the north-west of the Order limits; and Hatfield Priory (NHLE 1002150) is approximately 2.8km to the south-east of the Order limits. All scheduled monuments are considered to be of high value.

Listed buildings

- 7.6.8 There are no listed buildings within the Order limits.
- 7.6.9 There are 73 listed buildings within the 1km study area. The majority of these buildings are distributed throughout the study area and comprise mainly isolated farmhouses and associated farm buildings and cottages. There are however clusters of listed buildings within the 1km study area at Gamble's Green, Flack's Green, Fuller Street, and Boreham.
- 7.6.10 Three Grade I listed buildings are located within the 1km study area. These are Ringers Farmhouse (**DBH14**), the Church of St Mary the Virgin, Great Leighs (**DBH37**), and the Church of St Andrew, Boreham (**DBH16**). One Grade II* listed building is located within the 1km study area: The Old Rectory (**DBH65**). These are considered to be of high value. The remaining listed buildings within the 1km study area are listed at Grade II and are of medium value.
- 7.6.11 Within 3km a further one Grade I listed and 20 Grade II* listed buildings were identified for consideration, including those within the settlements of Fairstead (two buildings), Hatfield Peverel (four buildings), Little Leighs, and Terling (nine buildings).
- 7.6.12 The setting of these assets was reviewed and assessed to be largely associated with their settlements and do not extend into the Order limits. Two assets, the Parish Church of All Saints in Terling (**DBH23**), (Grade II*); and the Parish Church of St Mary the Virgin in Fairstead (**DBH48**), (Grade I) were considered further within the baseline due to their prominence in the landscape, increasing the potential for a greater intrusion into their setting (**Appendix 7A: Heritage Desk Based Assessment** of this ES).

Registered Parks and Gardens

- 7.6.13 There is one Grade II registered park and garden (RPG), Terling Place (**RPG1**), that falls partly within the 1km study area of the Scheme.
- 7.6.14 Terling Place (**RPG1**) surrounds the Grade II* listed Terling Place house (NHLE 1123407) on all sides. The Grade II* listed Parish Church of All Saints (**DBH23**) is located immediately to the north of the RPG which surrounds it on three sides. The park extends west to Waltham Road, south to Terling Hall Road and east to Hatfield Road and its boundary is defined by hedges, sometimes with fences and ditches, rather than a wall. The registered parks and gardens of New Hall, Boreham (NHLE 1000207) and Boreham House (NHLE 1000354), both assets of medium value, are also located within the 1km study area. Their presence in the study area is a result of the construction road connecting the main body of the Site to Generals Lane. As neither asset is located close to the proposed construction road they do not have the potential for impact from construction traffic and consequently are not considered further in this ES chapter.
- 7.6.15 There is one further Grade II registered park and garden within the 3km area of consideration, Hatfield Priory, (NHLE 1000206); which is of medium value.

Conservation areas

- 7.6.16 Three conservation areas fall within the 1km study area: the Terling Conservation Area, the Boreham Roman Road/Plantation Road Conservation Area, and the Boreham Church Road Conservation Area.
- 7.6.17 The Terling Conservation Area is located approximately 650m north east of the Order limits. Boreham Roman Road/Plantation Road Conservation Area is located approximately 300m south of the Order limits and is separated from it by the A12 trunk road and the railway line. The Boreham Church Road Conservation Area is located further south, approximately 1km south of the Order limits. All three conservation areas are considered to be of medium value.

Non-designated assets

- 7.6.18 Non-designated assets have been identified using a mix of sources, including the HER database, a walkover survey, archival research, an assessment of aerial photographs and LiDAR data, and a geophysical survey (all of which are detailed within the appendices of this chapter). These comprise assets (both features and discrete artefacts/material culture scatters) dating from the prehistoric to the modern periods. A programme of archaeological trial trenching was undertaken and the results are presented in **Appendix 7D: Trial Trenching Report** and has informed the baseline for the ES Chapter.
- 7.6.19 The baseline presented in **Appendix 7A: Heritage Desk Based Assessment** identified 151 non-designated archaeological assets within the 1km study area, 13 of which are located within the Order limits.
- 7.6.20 **Table 7-4** (below) provides a summary of non-designated assets within the Order limits.

7.6.21 In addition, the baseline has highlighted the potential for unknown archaeological assets within the Order limits which could be of local, regional, or national significance. The baseline assessment has concluded that there is a high potential for the medieval, post-medieval, and modern periods, moderate for the Later Prehistoric (Bronze Age and Iron Age), low to moderate for the Romano-British period, and low for the Early Prehistoric (Palaeolithic, Mesolithic and Neolithic), early medieval periods, and for paleoenvironmental remains. There is, however, still a risk that unexpected archaeological remains of all periods may be discovered within the Order limits.

Table 7-4 Summary of non-designated archaeological assets within the Order limits

Asset Reference Number	Name	Period	Value (Significance)	Description
A35	Potter's Wood	Medieval	Medium	Cropmarks of an enclosure and field boundary system Investigated by trial trenching (Site C) and dated to the late Iron Age/Romano-British and Roman periods. Two parallel ditches of prehistoric date and a large post-medieval to modern pit were also recorded in the same area.
A40	Land rear of Owls, Waltham Road, Boreham	Prehistoric	Low	A prehistoric pit and an undated ditch were recorded in two trial trenches.
A41	Lost Wood	Prehistoric to Modern	Medium	Cropmarks of possible First World War practice trenches. These were investigated by trial trenching (Site B) and found to have survived poorly and no material remains were recovered. A number of linear cropmarks were found to contain prehistoric material and further such features were recorded by trial trenching in the area.
A71	Whitehouse Farm	Medieval	Low	Possible medieval moated site. An extension of the possible moat into the Order limits was investigated by trial trenching (Site E). Only a single undated post hole was uncovered.
A92	Benning Hall	Unknown	Medium	Cropmarks of various rectilinear features and a ring ditch. Planned to be investigated by trial trenching, but no access was granted.
A104	West of depot	Unknown	Low	Cropmarks of linear features representing likely post medieval field boundaries, also a possible enclosure.

Asset Reference Number	Name	Period	Value (Significance)	Description
A106	North of Boreham	Unknown	Medium	Cropmarks including linear features, rectangular and rectilinear enclosures and an oval enclosure
A109	South of Terling Spring	Unknown	Low	Cropmarks of various linear features and a series of amorphous features which represent past extraction pits.
A146	–	Unknown	Low	Cropmarks of former field boundaries of likely post-medieval date. Identified in aerial photographs and/or LiDAR data.
A147	–	Unknown	Low	Cropmarks of extensive former field boundaries forming a cohesive field system of post-medieval date. Identified in aerial photographs and/or LiDAR data and targeted by trial trenching (Site G).
A148	–	Unknown	Low	Cropmarks of former field boundaries of likely post-medieval date. Identified in aerial photographs and/or LiDAR data.
A149	–	Unknown	Low	Cropmarks of former field boundaries of unknown date. Identified in aerial photographs and/or LiDAR data.
A151	–	Unknown	None	A possible enclosure identified by geophysical survey. This was investigated by trial trenching (Site F) and no archaeological remains were identified. Not further assessed.

7.6.22 The baseline has further identified 19 non-designated built heritage assets with the potential for impact from the Scheme. None are located within the Order limits.

Historic Landscape

7.6.23 An assessment of the Order limits' historic landscape has concluded that the Order limits comprises a remnant medieval agricultural landscape which is considered sensitive to change. Specifically, areas identified by the Essex Historic Landscape Characterisation (HLC) as "Irregular Enclosure" and "Ancient Woodland", as well as the historic boundaries of the modern field system resulting from boundary removal, are considered sensitive to change, with ancient hedgerows and areas of Ancient Woodland considered highly sensitive to change.

Historic Lanes

7.6.24 The Braintree District Protected Lanes Assessment (Ref 7-19) lists one Protected Lane within the Order limits and one such lane immediately adjacent to the Order limits. The lane within the Order Limits is Noakes Farm Road

(BTELANE8) and Terling Hall Road (BTELANE3) lies to the east and north of the Order Limits.

- 7.6.25 The Protected Lanes Study for Chelmsford Borough Council (Ref 7-20) lists two Protected Lanes within the Order limits and a single Protected Lane on the western boundary of the Order limits. The two lanes within the Order limits are Noakes Farm Lane and Birds Farm Lane, while the lane on the western boundary is a section of Boreham Road north of Birds Farm Lane.
- 7.6.26 The 2013 assessment of Braintree’s Protected Lanes by ECC used a number of criteria to assign a numerical value to the assets. These values included historic integrity, diversity, group value, archaeological association, archaeological potential, biodiversity, and aesthetic value, with a total possible value ranging from 6 to 27. Any Lane with a value below 14 was deemed as too low a value to be protected, and as such all Protected Lanes range in value from 14 to 27 with the vast majority falling between 14 and 16.
- 7.6.27 ECC have rated Noakes Farm Road (Braintree) as having a value of 15, Terling Hall Road as having a value of 18, Birds Farm Lane as having a value of 15, Noakes Farm Road (Chelmsford) as having a value of 17, and Boreham Road as having a value of 18 (**Table 7-5**).

Table 7-5 Summary of embedded design measures

Protected Lane Name	Historic Integrity	Diversity	Arch Potential	Aesthetic Value	Biodiversity	Group Value	Arch Association	Score
Noakes Farm Road (Braintree)	4	4	2	2	2	1	0	15
Terling Hall Road	3	4	2	2	2	3	2	18
Boreham Road	2	3	2	3	3	4	1	18
Birds Farm Road	4	2	2	2	3	2	0	15
Noakes Farm Road (Chelmsford)	4	3	2	3	3	2	0	17

Historical Background

- 7.6.28 This section provides a brief overview of the historical and archaeological background for the Site. The full assessment is available in **Appendix 7A: Heritage Desk Based Assessment** of this ES.
- 7.6.29 The Order limits comprises 452.93ha of arable, enclosed agricultural fields, separated by hedgerows, tree lines, small areas of woodland, the Bulls Lodge Substation, and minor roads and farm access tracks. The fields have been subject to removal of field boundaries throughout the 19th and 20th centuries, and repeated modern ploughing. Much of the area retains a potential for undisturbed archaeological remains to be present below the plough line (assumed to be roughly 300-400mm).
- 7.6.30 The Order limits is located on relatively flat ground sloping gently towards the south. A small stream known as Boreham Stream is located to the west of the

Scheme while the River Ter flows approximately 3km east of the Order limits, both of which flow into the River Chelmer.

- 7.6.31 Superficial deposit across the Order limits comprises mainly sedimentary glaciogenic diamicton and glaciofluvial deposits. Sporadic patches of Brickearth are also noted across the Order limits. These overly London Clay sedimentary bedrock.
- 7.6.32 While the River Chelmer is known as a focal point of early Holocene occupation, the Order limits itself and the surrounding area have thus far revealed little evidence of such activity. A scatter of Neolithic material has been recorded 260m west of the Order limits as have some scatters of undated lithic material further west.
- 7.6.33 A number of circular cropmarks likely indicate the presence of later prehistoric settlement or funerary activity within the Order limits and in the immediate vicinity. These are similar in nature to remains identified further afield which have been dated to the Bronze Age and Iron Age and suggest scattered later prehistoric occupation throughout the area. A number of archaeological investigations have identified evidence of this occupation, all of which demonstrate a clear concentration on elevated locations near streams, palaeochannels, and rivers. As such, it is expected that areas of the Order limits which straddle Boreham Stream and nearest to the Chelmer valley have the highest potential to contain later prehistoric remains.
- 7.6.34 The Roman period is well attested in the area, and likely a focal point of Roman activity given the proximity of the Order limits to the London to Colchester Roman Road 100m south of the Order limits and an important Roman settlement at Chelmsford (*Caesaromagus*). The remains of a villa or small settlement were recorded at Great Holts Farm 300m west of the Order limits. A Roman isled hall, suggestive of a Roman *Principa*, were recorded at Bulls Lodge mineral extraction area 200m north-west of the south-western end of the Order limits. Cropmarks near Toppinghoe Hall suggest the possible presence of a small Roman settlement 200m south of the Order limits. Nevertheless, no Roman period remains have been recorded within the Order limits.
- 7.6.35 The Order limits is known to have been largely agricultural throughout the medieval period. Several small scattered medieval farmsteads have been recorded within the Bulls Lodge mineral extraction area and it is expected that a similar pattern would have been present within the Order limits. However, whereas the Bulls Lodge farms were abandoned during the emparkation of Newhall Palace in the 13th century, the Order limits would have remained in continuous use. It is therefore expected that many of the post-medieval farmsteads extant within the Order limits may have earlier medieval origins, and thus the potential for medieval farmsteads to be present within the modern fieldscape is lower than within the former Newhall Park. Moated sites and farmsteads including medieval features are noted on the periphery of the site at Ringers Farmhouse, Wakering Hall, Lyons all, Terling Hall Farmhouse, Whitehouse Farm, and Brent Hall amongst others. Both Fairsteads and Great Leighs have churches of medieval origins and likely indicate the nearest medieval settlements to the Order limits surviving today.

- 7.6.36 The rural and agricultural character of the Order limits continued throughout the post-medieval period. Several extant farmsteads are noted as dating to this period throughout the vicinity of the Order limits, indicative of increasingly enclosed landscape and rising population density. Nevertheless, the area remained characterised by scattered farmsteads much as it was in the medieval period. By the 18th and 19th centuries, several new large estates began to be constructed in the area, in part due to the popularity of Hatfield Peverel as a stopping off point between London and Ipswich. The railway line connected London to Hatfield Peverel in 1844 and accelerated this trend. Archaeological remains dating to this period largely consist of former field boundaries reflecting parliamentary enclosures as well as changes in agricultural practices.
- 7.6.37 The area comprising the Order limits has undergone few changes in the 20th and 21st centuries. A number of cropmarks indicative of practice trenches are located within the Order limits. These are assumed to date to the First World War as they are not visible on aerial photographs from early 1940s, suggesting that they had already been buried by then. To the west of the Order limits was the Second World War Boreham Airfield which suggest some likely military presence throughout the area at the time.

Future Baseline

- 7.6.38 This section considers those changes to the baseline conditions described above that might occur during the time period over which the Scheme will be in place. It considers changes that might occur in the absence of the Scheme being constructed.
- 7.6.39 Changes to the archaeological baseline which might occur during the lifespan of the Scheme in the absence of the Scheme are minimal. They would be limited to typical taphonomic (i.e. erosion, degradation, corrosion, etc.) processes on buried archaeological assemblages. This would be unlikely to significantly alter the current baseline scenario.
- 7.6.40 It is not considered likely that significant numbers of designated built heritage assets will be added to the baseline in the future. The built heritage baseline is unlikely therefore to undergo significant change.

7.7 Embedded Design Mitigation

- 7.7.1 This section contains the mitigation measures relevant to this chapter that are already incorporated into the design, as described in **Chapter 2: The Scheme** and **Chapter 3: Alternatives and Design Evolution** of this ES [EN010118/APP/6.1].
- 7.7.2 Embedded mitigation measures proposed have been informed by the relationship between the Scheme and relevant designated assets and on the findings of the desk-based assessment, including the results of a programme of geophysical survey and a review of aerial photographs and LiDAR data.
- 7.7.3 Based on these data, two areas of significant (medium or high value) archaeological activity and two areas of sensitivity in regard to the setting of built heritage assets have been removed from the area of the Scheme within

the Order limits. They are detailed within **Table 7-6** and shown as the design evolution in **Figures 3-1, 3-2, and 1-2 [EN010118/APP/6.3]**.

- 7.7.4 Good design has been at the heart of the evolution of the Scheme and the iterative design process has been informed by the Cultural Heritage baseline and guided by policy requirements, consultation responses and fieldwork. With regard to built heritage and historic landscape assets, appropriate and sensitive screening has been developed and implemented to minimise the visual intrusion of the Scheme, while avoiding obscuring or intruding upon views and relationships between heritage assets (preliminary embedded design is shown indicatively as changes to the Scheme boundary in **Figures 3-1 and 3-2 and 1-2** and as screening and planting in **Figures 10-12 and 10-14 [EN010118/APP/6.3]**). Mitigation by planting will be undertaken within two work packages, Work No. 6(d), Landscaping and biodiversity enhancements and Work No. 10, Areas of habitat management and biodiversity enhancement measures. Work No. 6(d) includes new native hedgerows; existing hedgerow enhancement gapping up and infill planting; and new native woodland buffer planting to form ecological corridors between existing woodlands. Work No. 10 includes woodland restoration, rewilding scrub; and floodplain grasses. Any mitigation planting has taken into consideration the surrounding landscape character as appropriate. Planting as mitigation to screen views is limited to avoid the creation of new impacts; however, it has been used to enhance existing screening and/ or futureproof against the loss of existing planting as appropriate. All new planting undertaken with Work Nos. 6(d) and 10 would be implemented and managed in accordance with the Outline Landscape Ecology Management Plan (OLEMP). Following planting, proposed native species hedgerows would be between 0.6m and 0.8m in height with native tree planting between 1m and 3.5m in height dependant on available plants and natural variation in heights. At Year 15 trees planted as part of the Scheme would range between 5m and 6.5m in height. New and existing hedgerows would be maintained at 3m tall.
- 7.7.5 The extent and nature of any mitigation by design has been informed by the results of the trial trench evaluation works, which provided information on the depth and character of archaeological remains present within areas of extensive intrusive ground disturbance within the Scheme footprint, and the information provided by detailed visualisation works.
- 7.7.6 **Table 7-6** below summarises the preliminary embedded design measures shown on **Figures 3-1, 3-2, and 1-2** as well as in **Figures 10-12 and 10-14 [EN010118/APP/6.3]** in regard to minimising or mitigating any construction effects on the cultural heritage resource.

Table 7-6 Summary of embedded design measures

Potential Impact Mitigation / Enhancement Measure

Potential for impact upon known or previously unrecorded	Two areas of significant (medium or high value) archaeological activity have been removed from the Order Limits. The areas of archaeological remains comprise of a single multi-occupation prehistoric and/or Roman settlement associated with medieval, post-medieval and modern features (A70) and a prehistoric settlement (A127). Both assets have been entirely removed from the Order
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Potential Impact Mitigation / Enhancement Measure

archaeological deposits.	Limits. Asset A127 was subject to an archaeological trial trench evaluation (Site D).
Impact on the significance of built heritage assets through changes to their setting during construction and operation of the Scheme	Two areas of sensitivity in regard to the setting of Toppinghoe Hall and Ringer's Farmhouse have been removed from the Order Limits. Two areas of sensitivity in regard to the setting of Scarletts Farm and Noakes Barn have been removed from the developable area of Scheme. Screening and planting has been designed to further reduce impacts to built heritage assets through changes to setting.

7.8 Assessment of Likely Impacts and Effects

- 7.8.1 The impacts and effects (both beneficial and adverse) associated with the construction, operation, and decommissioning of the Scheme are outlined in the sections below. The assessments have been assessed following consideration of the embedded mitigation measures as described in Section 7.7.
- 7.8.2 The following provides a proportionate assessment of likely significant effects on the historic environment. As such, only those assets which are considered to experience an impact from the Scheme, as informed by the DBA (**Appendix 7A: Heritage Desk Based Assessment** of this ES) and professional judgement, are discussed. Those assets which will not experience an impact on their significance (as defined above), either physically or through changes to their setting, are omitted.

Construction (not earlier than 2024 to 2026) and Operation (not earlier than 2026)

- 7.8.3 This section identifies the potential impacts resulting from the Scheme based on the identified methodology presented above. A summary of the impacts and effects anticipated to result from construction and presence of the Scheme on cultural heritage assets is presented in **Table 7-9**.
- 7.8.4 A reasonable worst case of a 24-month construction period has been assessed with regard to the construction of the BESS. However, it is acknowledged that the BESS may be built in two phases, but from an archaeological and cultural heritage point of view, this is not expected to affect the significance of effect. The impact on any buried heritage assets would be the same regardless of when the BESS is phased, and the impacts on setting would be similar. The impacts on setting would be extended in duration slightly if the BESS is built in two phases (due to construction activity occurring during the second phase of the BESS, five years after start of operation) but this would also be viewed in the context of the existing BESS components and surrounding operational solar PV farm. It is therefore not considered necessary to differentiate this further in the assessment.

- 7.8.5 Construction impacts include those impacts associated with construction activities, such as ground-breaking activities, moving machinery, noise and construction traffic, and erecting new structures. Construction effects include all changes up until the start of operation of the Scheme and, therefore, include the presence of the Scheme itself. As such, construction works can impact on heritage assets directly through their removal, or by affecting their setting.
- 7.8.6 The following intrusive construction-related activities have been identified based on the Scheme design set out in **Chapter 2: The Scheme** and **Chapter 3: Alternatives and Design Evolution** of this ES as having the potential to impact on archaeological remains (the assessment of impacts on archaeological remains has been undertaken against the maximum parameters allowed by the Outline Design Principles):
- a) Solar PV Arrays (Work No. 1) – Each PV Table is to be installed on galvanised steel piles driven into the ground to a depth of up to 2m. Due to height restrictions, piling may not be possible for all solar panels, and it is assumed that concrete pad foundations will be required for approximately 5% of the PV tables. Site levelling may be required but will be localised and minimal;
 - b) Inverters, transformers and switchgear (Work No. 1) forming Solar Stations and The Balance of Solar System (BoSS). Two options are proposed for these. The first is a Central Inverter Solution which would involve the installation of a number of central inverters, transformers and switchgear across the Solar Farm Site. Each of these would be installed on concrete foundations to a maximum depth of 1m and will range in size from 3.0m x 2.5m in plan and 3.5m in height (individual switchgear) to 12.5m by 3.1m in plan and 3.5m in height (Integrated Solar Station). The second solution would consist of string inverters installed below each panel and standalone transformers would be installed as per the first solution. For both archaeology and built heritage, the first of these, the Central Inverter Solution, is considered the worst-case and, as per the Outline Design Principles, 150 such central inverter solutions are considered in order to assess the impacts to cultural heritage.
 - c) Distribution Cables (Low voltage) (Work No. 1) –cables are needed to connect the PV Panels to inverters (typically via 1.5kV /1.8 kV cables), and the inverters to the transformers (typically via 0.6kV /1 kV cables). These cables in their various instances among infrastructure may be overground (typically secured on cable trays beneath the PV panels or secured to other parts of the nearby components) or underground in trenches typically 0.8m in width and up to 1.5m depth. The exact location is not known and could run anywhere within the PV area, but it is assumed that only 1-2 such trenches would be present in each field.
 - d) Distribution Cables (High-voltage) (Work No. 1) – trenches for 33kV cables from transformers and the switchgear and from switchgear to Longfield Substation. These cables will likely be installed along the spine route. The trenches will be up to 1.5m in depth and up to 1.5m in width. However, the trenches will converge as they approach the BESS and as such there may be several trenches adjacent to each other.;

- e) Battery Energy Storage System (BESS) (Work No. 2) – the battery array and related components will be installed on reinforced concrete foundation slab to extend to a maximum depth of 1m or concrete piles. The structures will be a maximum of 4.5m in height and security infrastructure may reach 5m in height. A second phase may be built an estimated five years after the start of operation. However, as per section 7.8.4, impacts from these two phases are assessed as a single phase of construction;
- f) Longfield Substation (Work No. 3) – The converter station and related components will be installed on concrete foundations assumed to extend to a depth of 2m. It will have a maximum height of 13m as per the Outline Design Principles;
- g) Grid Connection Route (Work No. 4) – The Grid Connection Route to Bulls Lodge Substation will comprise three 400 kV cables within a single 3m wide trench up to 3m in depth. An access corridor of 5m will be required either side of the centreline of the trench, resulting in a working corridor of 10m. During construction a working width of up to 20m will be required to install the 400kV cable circuit which will likely require topsoil stripping. Up to 5 jointing pits will be required to facilitate the construction and maintenance of the cables;
- h) Bulls Lodge Substation Extension (Works Order No. 5) – The preferred option for the extension of the Bulls Lodge Substation to north-west of the existing substation will require concrete foundations to a depth of no more than 2m as per the Outline Design Principles. Some levelling may be required to bring the location to a finished ground level at a maximum of 33m AOD. The Concept Design includes a building footprint of 65m x 27 m and a height of 15m.
- i) Access Tracks (Work No 6(f))– it is proposed to utilise the existing hard-surfaced tracks that run throughout the Order limits where possible as Primary Access Track, and to construct additional Secondary Access Tracks where connectivity is required. These will consist of a layer of rock fill placed on a suitable underlying layer. Where areas of new access roads are planned, the footprint will be excavated to a minimum 4m width down to approximately 200mm to 600mm depth depending on the underlying formation. Where existing roads are present and will need widening, the fill will be placed to the same depth as the existing road, typically 600mm in depth. The existing ground profile may be levelled flat and result in slightly deeper excavations in some areas. Where drainage is required, a ditch may be cut into the slope next to the road.
- j) Sustainable Drainage Systems (SuDs) and drainage infrastructure (Work No. 6(i)) – The drainage strategy proposes to include swales within low lying areas and parallel to the DCO Site's contours. The BESS will require subbase drainage which will intrude to a depth greater than the area's foundations, but this would not result in additional impact to the archaeological resource. A small attenuation located to the east of the BESS would require some intrusive works. The Bull's Lodge Station drainage includes the installation of land drains along the northern and western boundaries and discharging into Boreham Brook, all of which will require intrusive excavations.

- k) Temporary work compounds (Work No. 6(j))– topsoil stripping to an assumed depth of between 200mm and 600mm is anticipated to be required for each compound. Construction compounds will be spread across the Order limits at a maximum 10 strategic locations across the scheme as per the Outline Design Principles. The compounds will be approximately up to 50m x 50m and will be converted to solar PV or landscaping at the end of their use.
 - l) Main Temporary Construction Compound (Work No. 7a) - there will be a single main compound a maximum of 2.25 hectares in size which will require an assumed depth topsoil stripping of between 200mm and 600mm.
 - m) Bulls Lodge Substation Extension Temporary Construction Compound (Work No. 7b) - there will be a single compound at the Bulls Lodge Substation with which will require an assumed depth topsoil stripping of between 200mm and 600mm.
 - n) Permanent office, warehouse and plant storage building (Work No. 8) – the permanent office, warehouse and plant storage building will occupy a maximum footprint of 540 m², extend to a maximum height of 7.1m. It is assumed that foundations will require intrusive excavations to a depth of 1m.
- 7.8.7 There will be no physical impacts to any built heritage assets, but the above activities have the potential to impact on Protected Lanes, a number of non-designated archaeological assets, as well as previously unrecorded remains that may be present within their footprint in the following ways:
- a) Truncation or total removal of heritage assets;
 - b) Compaction of archaeological deposits by construction traffic and structures; and
 - c) Changes to groundwater drainage that could affect the long-term preservation of *in situ* archaeological remains.
- 7.8.8 Taking the above into consideration, only extant assets have been brought forward to assessment. Those non-designated assets within the baseline that comprise either discrete findspots or metal detector finds are considered to be no longer present within the Order limits and there would therefore be no impact upon them. These have been noted where relevant to provide context to the Order limits' historical and archaeological record, however, only extant monuments recorded within the Essex HER, features or anomalies identified by geophysical (magnetometer) survey, and spreads of finds which may be indicative of the presence of further below-ground remains have been considered for assessment.
- 7.8.9 With reference to noise, a noise assessment for both the construction and operation of the development has been undertaken (refer to **Chapter 11: Noise and Vibration** of this ES [EN010118/APP/6.1]. The noise assessment only considers effects of increased noise on human assets; therefore, no specific heritage assets were monitored. However, the noise assessment finds (in **Chapter 11: Noise and Vibration, Table 11-12**) that outside of the Order limits operational noise emissions are generally below 45 dB(A) with the

Scheme operational, which is no greater than typical daytime noise levels. The peaceful character of the settings of identified designated and non-designated heritage assets will therefore be maintained and no significant effects are anticipated.

- 7.8.10 Construction of the Scheme has the potential to cause temporary adverse effects due to change to the setting of heritage assets, including Protected Lanes, as a result of visual intrusion, noise, severance, access and amenity.

Designated Assets

- 7.8.11 It is not anticipated that there will be any physical impact upon any designated heritage assets during construction. All impacts will result from alterations to their setting. The following assessment has been undertaken in consultation with the landscape and visual specialists to identify the intervisibility between assets; their setting and the Scheme. Viewpoint photomontages have been prepared as part of the ES. Locations of these proposed viewpoints are discussed within **Chapter 10: Landscape and Visual Amenity**. This Cultural Heritage chapter also considers impacts on setting which are not visual but will affect individuals' ability to appreciate the significance of the asset through changes in land use, noise and landscape character. This has been undertaken through a review of location, use and historic development.
- 7.8.12 The Terling Conservation Area (**C1**) is located in the village of Terling, but also takes in the settlements of Flacks Green and Gambles Green to the west. The Terling Conservation Area extends from the village of Terling in the east to Flack's Green in the west and is approximately 1.6km in length. The conservation area takes in the historic core of the village of Terling extending to Terling Place house and the formal gardens and pleasure grounds that surround it to the south, Owl's Hill to the north and Norman's Hill and Flack's Green to the west. The conservation area contains 42 listed buildings, the majority located along The Street, Church Street and Owl's Hill with other examples on Norman's Hill and at Flack's Green. The character of the conservation area changes once the historic core of Terling is left, with parts of The Street, Owl's Hill and Norman's Hill having a sub-urban feel before returning to a more rural character at Flack's Green where development is arranged around a large arable field. The setting of the conservation area is rural with open fields separating it from the nearby settlements of Fairstead and Fuller Street. There is some appreciation of the settlement from outside the conservation area as the spire of All Saints Church is occasionally visible from distant locations within the northern part of the Order limits in some directions. The conservation area is considered to be of medium value.
- 7.8.13 The conservation area is located approximately 600m to the east of the Order limits which it faces across arable fields and as a result is expected to experience some short and long-term adverse effects during the construction of the Scheme. The heritage value of the conservation area lies in the historic interest provided by the historic buildings and park within it which illustrate the medieval and post-medieval development of the settlement. Architectural interest is derived from an appreciation of the style and materials of the historic buildings, as well as an appreciation of the intervening green spaces that contribute to the character and appearance of the area. Significant assets within the conservation area include the Grade II* listed Terling Place (NHLE

1123407), the Grade II* listed Parish Church of All Saints (**DBH23**) and seven other Grade II* listed buildings. Impact is only expected for the church as a result of its prominence in the landscape. The conservation area also includes part of the Terling Place Grade II registered park and garden (**RPG1**) which is also expected to experience some minor impact.

- 7.8.14 Temporary effects are expected as a result of construction traffic movement and the movement of construction equipment which is likely to affect the setting of the conservation area to the south-west of Gamble's Green. This will however be limited to movement and activity within the Order limits as Terling Hall Road will not be used for the import of construction materials, plant and equipment or components to site. Long-term, reversible impacts are expected as a result of changes to the conservation area's setting from the presence of the Scheme in the landscape. The Scheme will not be visible in views from the western end of the conservation area at Gamble's Green. Viewpoint 25 in **Chapter 10: Landscape and Visual Amenity** of this ES demonstrates this, the view looks west from Waltham Road at the western extent of the conservation area. The viewer travelling towards the conservation area along Terling Hall Road and Waltham Road will experience the change of setting with the Scheme, in the form of PV Arrays (maximum height 3m) and the deer fencing around them, on the western side of Terling Hall Road. The viewer will have left the Scheme approximately 900m behind them before they arrive in the conservation area, however.
- 7.8.15 Embedded mitigation in this location and at other locations across the Scheme will take the form of native hedgerow enhancement, gapping up and infill planting which will have an effect from implementation which will increase as the planting matures. New planting proposed as part of the Scheme would be delivered in three phases. Advanced Mitigation Planting would be undertaken in the 2021/2022 planting season in order to maximise growth prior to the Scheme's operation. Where this is not possible, Construction Day 1 Planting will be undertaken at the beginning of the construction phase. Remaining planting, referred to as Residual Mitigation Planting, would be carried out at the end of the construction phase. All planting referred to in this assessment would therefore be in place before the commencement of the operation phase.
- 7.8.16 The changed experience of the viewer approaching the conservation area from the west will not prevent understanding of the medieval origins and post-medieval development of the settlement but will have some impact on the ability to appreciate the settlement within the surrounding rural landscape. Due to the restricted height of the Scheme, its distance from the conservation area, and the embedded mitigation by planting, the magnitude of impact on the designated area is expected to be **very low**, resulting in a **negligible** effect on this asset of **medium value**. This effect is not considered significant in EIA terms.
- 7.8.17 The Terling Place registered park and garden (**RPG1**), (Grade II) is located to the south of the village of Terling and surrounds the Grade II* listed Terling Place (NHLE 1123407), the latter of which will not be impacted as a result of the Scheme. There are no other listed buildings within the RPG. The park extends west to Waltham Road, south to Terling Hall Road and east to Hatfield Road and its boundary is defined by hedges, sometimes with fences and

ditches, rather than a wall. There has been parkland here since at least the 16th century but the present park dates to the 1770s when it was laid out by the landscape designer Nathaniel Richmond. The park is divided by the River Ter, which runs across it from the north-west to the south-east, and the house, entrances, pleasure gardens and formal gardens are all within the north-eastern half. The south-western half was returned to agricultural use in the mid-20th century. The RPGs heritage value stems from its historic interest as a late 18th century planned landscape and aesthetic interest in its design and planting. The setting of the RPG is the agricultural land that surrounds the park and the village of Terling. The most significant part of the park is located north-east of the River Ter around Terling Place and comprises formal and kitchen gardens, lawns, wilderness and woodland. That part of the park to the south-west of the river was returned to agricultural use in the mid-20th century and has lost most of the key indicators of a parkland landscape. The RPG is of **medium value**.

7.8.18 Temporary effects are expected as a result of construction traffic movement and the movement of construction equipment which is likely to affect the setting of the RPG to the south and west. This will however be limited to movement and activity within the Order limits as Terling Hall Road will not be used for the import of construction materials, plant and equipment or components to site. Long-term, reversible impacts are expected as a result of changes to the RPG's setting from the presence of the Scheme in the landscape. The ZTV (**Figure 10-8 [EN010118/APP/6.3]**) shows little theoretical visibility of the Scheme from the majority of the RPG. There is limited theoretical visibility of the PV Arrays (maximum height 3m) and the deer fencing around them within Potential Development Area (PDA) 23 (**Figure 7-2 [EN010118/APP/6.3]**) from a narrow strip of the RPG on the eastern side of Waltham Road. There is limited theoretical visibility of these elements of the Scheme while travelling south on Waltham Road with the park to the left with slightly greater theoretical visibility and on the approach along Terling Hall Road from the north-west. This will not prevent understanding of the park as a whole as an 18th century designed landscape but will have an impact on the ability to appreciate the south-western part of the park within the surrounding rural landscape. Embedded mitigation in this location will take the form of native hedgerow enhancement, gapping up and infill planting which will have an effect from implementation which will increase as the planting matures. Due to the restricted height of the Scheme and the limited significance of the part of the park expected to experience impact, the magnitude of impact on the registered park and garden is expected to be **low**, resulting in a **minor adverse effect** on this asset of **medium value**. This effect is not considered significant in EIA terms.

7.8.19 Parish Church of All Saints (**DBH23**), (Grade II*) is located at the heart of the village of Terling approximately 1.3km from the Order limits. The church's heritage value stems from its historic and archaeological interest as a medieval parish church and its architectural interest for its style and materials, particularly its use of flint rubble, its red brick tower and shingled spire. The church's immediate setting is the historic core of the village of Terling which has remained largely unchanged since the 19th century. The setting extends to the wider parish which is large and takes in large parts of the northern part

of the Order limits. Due to the distance of the church from the Scheme it is not expected to experience effects as a result of construction traffic movements or construction activity. While no part of the Scheme will not be visible from the church at ground level, its spire is visible from a number of locations at the northern end of the Order limits, and therefore, long-term, reversible impacts are expected as a result of changes to the asset's setting. The presence of the Scheme will not prevent understanding of the asset as an historic parish church and there will be little impact on the ability to appreciate the asset within the surrounding rural landscape. The magnitude of impact on the asset is expected to be **very low**, resulting in a **minor adverse effect** on this asset of **high value**. This effect is not considered significant in EIA terms.

- 7.8.20 Ringers Farmhouse (**DBH14**), (Grade I) is located approximately 190m from the Order limits to the north-west, 630m to the south-west and 620m to the south. The house is the oldest farmhouse in the immediate area with a hall dating to the 12th century and 16th century wings. The house has historic and archaeological interest as an unusual survival of a 13th century hall house and stands in a completely agricultural setting.
- 7.8.21 The Primary Access Track will run along the Order limits boundary approximately 630m to the south-west and approximately 610m to the west of the farmhouse. Temporary effects are expected as a result of construction traffic movement, the transportation of construction equipment and construction activity which is likely to affect the setting of the house to the north, south and west. Long-term, reversible impacts are expected as a result of changes to the house's setting from the presence of the Scheme in the landscape. As part of the design, and in order to minimise impact, the Solar PV Arrays (Work No. 1) in the vicinity of the asset has been set back approximately 200m to the north-west (PDA 23) and removed completely to the north-east. PDA 23 will contain PV Arrays (maximum height 3m) surrounded by deer fencing. Given their distances of between approximately 200m and 440m from the asset it is not considered that the presence of the CCTV towers on the boundary of PDA 23 will contribute greatly to the impact.
- 7.8.22 The Order limits and Solar PV Arrays (Work No. 1) are approximately 600m distance to the south-west where the PV Arrays and deer fencing around them will be screened by both existing planting and proposed hedge strengthening which will have an effect from implementation which will increase as the planting matures. The Order limits are approximately 600m to the south where the Scheme in the form of PV Arrays and deer fencing within PDAs 29 and 30 will be screened by a proposed native woodland buffer with a minimum width of 25m. This will create some screening from implementation which will increase as the planting matures. The ZTV (**Figure 10-8**) shows limited theoretical visibility for the proposed Office, Warehouse and Plant Storage area from the listed building. The area is approximately 750m west of the listed building in the angle formed by PDAs 15 and 22 and may be visible or partially visible in views from the south-west of the asset within the asset's setting. The presence of the PV Arrays and deer fences within the setting of the listed building will not prevent understanding of the asset as an historic farmhouse but will have an impact on the ability to appreciate it within the surrounding rural landscape. Care has been taken to remove as much development as possible from the asset's setting and the listed building will continue to stand

in a contiguous area of over 130 hectares of farmland. Due to the restricted height of the Scheme, and distances between the Scheme and the asset, the magnitude of impact on the house is expected to be **low**, resulting in a **moderate adverse effect** on this asset of **high value**. This effect is considered significant in EIA terms.

7.8.23 Barn Approximately 5 Metres South-East of Ringers Farmhouse (**DBH57**), (Grade II) is located approximately 20m from the Order limits. It was built c.1600 and has historic interest as an agricultural building dating well before the agricultural revolution. The barn's setting is Ringers Farm and extends to the wider agricultural landscape. Temporary effects are expected as a result of construction traffic movement, the transportation of construction equipment and construction activity which is likely to affect the setting of the barn to the north, south and west. The Primary Access Track will run along the Order limits approximately 630m to the south-west and approximately 610m to the west of the barn. Long-term, reversible impacts are expected as a result of changes to the barn's setting from the presence of the Scheme in the landscape. The barn is subject to the same existing screening and embedded mitigation as Ringers Farmhouse (DBH14) and in addition is partially screened from the west by the farmhouse. The Scheme will be visible in views from the asset to the north-west, south-west and south. The asset's relationship with the listed farmhouse will not be affected and the presence of the Scheme will not prevent understanding of the asset as an historic farm building. There will however be some impact on the ability to appreciate the asset within the surrounding rural landscape. Due to the restricted height of the Scheme and distances between the Scheme and the asset, the magnitude of impact on the barn is expected to be **low**, resulting in a **minor adverse effect** on this asset of **medium value**. This effect is not considered significant in EIA terms.

7.8.24 Leylands Farmhouse (**DBH54**) (Grade II) is located approximately 135m from the Order limits to the west and approximately 95m to the south. The asset's heritage value stems from its historic interest as a farmhouse built before the agricultural revolution and it has an entirely agricultural setting. The Scheme's Primary Access Track will run on a north/south alignment just inside the Order limits to the west of the building and temporary effects are expected as a result of construction traffic movement and the transportation of construction equipment on this track and on Secondary Access Tracks further to the west (PDAs 1 and 3) and south (PDA 7). These movements together with construction activity to the south and west of the asset are likely to affect the setting of the house. Long-term, reversible impacts are expected as a result of changes to the house's setting from the presence of the Scheme in the landscape. This includes the presence of PV Arrays (maximum height 3m) and the deer fencing around them to the west (PDAs 1 and 3) and south (PDA 7) and visible from the asset. The asset's agricultural setting will be preserved to the north and east. To the west, the asset will be partially screened from the Scheme by existing modern agricultural buildings. To the south-west the Scheme will be screened from the asset by an area of woodland to the south of the modern agricultural buildings. To the south some screening will be provided by proposed hedge strengthening and gapping which will increase as the vegetation matures, but the Scheme will be visible in glimpsed views both from the asset and from Terling Hall Road on the approach to it, especially

when the trees and shrubs have lost their leaves. The presence of the Scheme will not prevent understanding of the asset as an historic farmhouse. There will however be some impact on the ability to appreciate the asset within the surrounding rural landscape. Due to the restricted height of the Scheme and the screening both in place and proposed screening by planting the magnitude of impact on the farmhouse is expected to be **low**, resulting in a **minor adverse effect** on this asset of **medium value**. This effect is not considered significant in EIA terms.

- 7.8.25 Barn and Stable Range Approximately 15 Metres North of Leylands Farmhouse (**DBH44**) (Grade II) has historic interest as a composite farm building dating to the 17th and 18th centuries. Its setting is Leylands Farm including the farmhouse and the agricultural land beyond. The barn is subject to the same existing and embedded screening as Leylands Farmhouse, but with additional screening from the farmhouse itself to the south. The Scheme, in the form of PV Arrays (maximum height 3m) and the deer fencing around them, will be visible in views from the asset to the south and west. The asset's relationship with the listed farmhouse will not be affected and the presence of the Scheme will not prevent understanding of the asset as an historic farm building. There will however be some impact on the ability to appreciate the asset within the surrounding rural landscape. Due to the restricted height of the Scheme and the screening, both in place and proposed, the magnitude of impact on the barn is expected to be **low**, resulting in a **minor adverse effect** on this asset of **medium value**. This effect is not considered significant in EIA terms.
- 7.8.26 Scarlett's Farmhouse (**DBH34**) (Grade II) is located approximately 30-50m from the Order limits on three sides and approximately 90m on the fourth, eastern side. The asset has historic interest as a farmhouse dating in part to the 14th or 15th centuries and has a wholly isolated, agricultural setting. The Primary Access Track passes approximately 120m south-west of the building on its way north to skirt the eastern edge of PDA 3 before terminating at the south-east corner of PDA 1. Temporary effects are expected as a result of construction traffic movement and the transportation of construction equipment along the track, together with construction activity within the PDAs. The setting of the farmhouse will be affected as a result. Long-term, reversible impacts are expected as a result of changes to the farmhouse's setting from the presence of the Scheme in the landscape. This includes the presence of PV Arrays and surrounding deer fencing to the north, south and east in PDAs 3, 7 and 9 which will be visible from the asset. To the west of the asset, Scarlett's Wood covers an area of approximately 8.5ha and will be retained, screening the asset from elements of the Scheme to the west. An area of just over 12ha (including the immediate grounds of the house) to the north and south of the asset and respecting existing field boundaries will be reserved as Set-Aside. The set-aside will remove the Solar PV Arrays (Work No. 1) to approximately 250m to the north-west of the asset, 130m to the south-east, 200m to the south and 280m to the south-west. When added to the undeveloped land to the north and west of Barn of Noake's Farm [**DBH13**] the land removed from the Solar PV Arrays (Work No. 1) will create a corridor approximately 1.2km long between Boreham Road and the northern extent of the Set-Aside area. Existing hedgerows to the north-west, north-east, south-

east and south-west of the Set-Aside and to the east of the asset's grounds will be 'gapped up' and maintained to a minimum height of 2.5m to enhance the existing screening. The presence of the Scheme will not prevent understanding of the asset as an historic farmhouse. There will however be some impact on the ability to appreciate the asset within the surrounding rural landscape. Due to the restricted height of the Scheme, its distance from the asset and the screening both in place and proposed, the magnitude of impact on the farmhouse is expected to be **low**, resulting in a **minor adverse effect** on this asset of **medium value**. This effect is not considered significant in EIA terms.

7.8.27 Little Russells (**DBH55**) (Grade II) is located approximately 15m from the Order limits. It has historic interest as an 18th century cottage and has an agricultural setting on Terling Hall Road on farmland and opposite Sparrow's Farm. Terling Hall Road will not be used for the movement of site traffic. While the asset is not close to the Primary Access Track it is located approximately 130m north of the eastern terminus of the Secondary Access Track in PDA 10 and approximately 220m east of the Secondary Access Track in PDA 7. Temporary effects are expected as a result of construction traffic movement and the transportation of construction equipment in both PDAs together with construction activity in both PDAs. Long-term, reversible impacts are expected as a result of changes to the cottage's setting from the presence of the Scheme in the landscape. This includes the presence of PV Arrays and deer fencing surrounding them on land to the south and west of the asset. To the north-west, west and south-west of the asset the PV Arrays will be relatively close to the asset, a buffer of approximately 15m being allowed between the boundary of the cottage and the deer fence. To the south-east however, an area of land measuring approximately five hectares has been taken out of the Solar PV Arrays (Work No. 1) in order to protect the setting of the listed cottage and of the three grade II listed buildings opposite it on Terling Hall Road. This will leave the listed cottage with over 300m of undeveloped farmland to the south-east. The cottage's association with the road and with Sparrow's Farm will be unchanged and a large proportion of its setting will be undisturbed. The presence of the Scheme will not prevent understanding of the asset as an historic cottage. There will however be some impact on the ability to appreciate the asset within the surrounding rural landscape, especially in views from within the Order limits. Due to the restricted height of the Scheme and the proportion of the setting that will remain unchanged, the magnitude of impact on the cottage is expected to be **low**, resulting in a **minor adverse effect** on this asset of **medium value**. This effect is not considered significant in EIA terms.

7.8.28 Sparrows Farmhouse (**DBH7**) (Grade II) is located on the east side of Terling Hall Road approximately 35m from the Order limits. The farmhouse is associated with two further listed buildings, Complete Complex of Farm Buildings East of Sparrow's Farmhouse Excluding the Barn, Listed Separately as Item 5/152 (**DBH8**), (Grade II) and Barn Approximately 30 Metres East of Sparrows Farmhouse (**DBH45**) (Grade II). The assets have historic interest as a farmhouse and agricultural buildings with dates ranging from the 17th to the 19th centuries. Their setting is Sparrows Farm extending to the agricultural land that surrounds the complex.

- 7.8.29 While Terling Hall Road will not be used for the movement of site traffic the assets are located approximately 140m north of the eastern terminus of the Secondary Access Track in PDA 10 and approximately 265m east of the Secondary Access Track in PDA 7. Temporary effects are expected as a result of construction traffic movement and the transportation of construction equipment in both PDAs together with construction activity in both PDAs. Long-term, reversible impacts are expected as a result of changes to the farmhouse's setting from the presence of the Scheme in the landscape. This includes the presence of PV Arrays and deer fencing surrounding them on land on to the south and west of the group of listed buildings. To the south and south-east of the group, an area of land measuring approximately five hectares has been taken out of the Solar PV Arrays (Work No. 1) in order to protect the setting of the listed buildings and of the grade II listed Little Russells (**DBH55**). This will leave a distance of up to approximately 350m of undeveloped farmland between the assets and the deer fence surrounding PDA 14 to the south-east. Leaving this parcel undeveloped will preserve the view of the assets from the lane that runs west from Terling Hall Road and will leave a stretch of Terling Hall Road approximately 260m long with agricultural land on both sides as the group is approached from the south, maintaining the current experience of the viewer approaching from this direction. The buildings' group value will be unharmed and their association with the road and with the farmland surrounding them on the north-east side of the road and for some distance on the south-west side will be unchanged. The presence of the Scheme will not prevent understanding of the assets as a group of historic farm buildings. There will however be some impact on the ability to appreciate the assets within the surrounding rural landscape, both in views from within the Order limits and when travelling along Terling Hall Road from the north. Due to the restricted height of the Scheme and the proportion of the setting that will remain unchanged, the magnitude of impact on the cottage is expected to be **low**, resulting in a **minor adverse effect** on these assets of **medium value** prior to the consideration of additional mitigation. This effect is not considered significant in EIA terms.
- 7.8.30 Rolls Farmhouse (**DBH35**), (Grade II) is located approximately 40m from the Order limits. The building has historic interest for its part in the agricultural development of the area and has a wholly agricultural setting, being surrounded by farm buildings and farmland on all sides. The Primary Access Track terminates approximately 100m south of the farmhouse in PDA 18 and a Secondary Access Track terminates approximately 200m north-west of the farmhouse in PDA 14. Temporary effects are expected as a result of construction traffic movement and the transportation of construction equipment along these routes. Temporary effects are also expected from construction activity within PDA 14 to the north-west of the farmhouse, PDA 17 to the south-west and PDA 18 to the south.
- 7.8.31 Long-term, reversible impacts are expected as a result of changes to the farmhouse's setting from the presence of the Scheme in the landscape. This includes the presence of PV Arrays in these locations and deer fencing surrounding them. From the farmhouse itself the PV Arrays within PDA 14 will be screened by the listed Barn approximately 30m north west of Rolls Farmhouse (**DBH9**). A new hedgerow with a minimum height of 3m is

proposed at the north-eastern end of PDA 17 to screen the farmhouse from the PV Arrays and deer fencing within it. The farmhouse will be screened from the wider Scheme to the south-west and west by woodland approximately 130m to the south-west of the asset. When viewed from Terling Hall Road immediately in front of the farmhouse's principal elevation the only part of the Scheme visible will be part of PDA 18 to the south-east approximately 120m away from the viewer. The experience of the setting will be changed for those travelling towards the farmhouse on Terling Hall Road to whom PV Arrays within PDA 14 will be visible when travelling south and within PDA 17 and 18 will be visible when travelling north. The experience of the setting will also be changed for those viewing the farmhouse from the bridle path that skirts the north side of Ringer's Wood and continues between PDA 16 and PDA 17. PV Arrays within PDA 17 will impede the view of the farmhouse from points along this route, especially from the northernmost tip of Ringer's Wood.

- 7.8.32 The farmhouse's association with its listed barn (**DBH9**) will be unchanged by the Scheme. An area in excess of 4ha around the farmhouse will be left undeveloped which increases to approximately 7ha with the addition of the woodland to the south-west of the farmhouse which will also be undeveloped. The setting to the north-east of the farmhouse, which is comprised entirely of agricultural land, is outside the Order limits and will remain as it is within the existing baseline. The presence of the Scheme will not prevent understanding of the asset as an historic farmhouse. There will however be some impact on the ability to appreciate the asset within the surrounding rural landscape, both in views from within the Site and when travelling along Terling Hall Road in either direction and on a bridle way to the south-west of the asset. Due to the restricted height of the Scheme and the proportion of the setting that will remain unchanged, the magnitude of impact on the cottage is expected to be **low**, resulting in a **minor adverse** effect on this asset of **medium value**. This effect is not considered significant in EIA terms.
- 7.8.33 Barn approximately 30m north west of Rolls Farmhouse (**DBH9**), (Grade II). The barn has historic interest, illustrating the agricultural history of the area, and architectural interest for its use of vernacular style and materials. The setting of the barn is Rolls Farm including the surrounding farmland. The Primary Access Track terminates approximately 125m south of the farmhouse and a Secondary Access Track terminates approximately 175m north-west of the farmhouse. Temporary effects are expected as a result of construction traffic movement and the transportation of construction equipment along these routes to the south of the asset. Temporary effects are also expected from construction activity within PDA 14 to the north-west of the barn, PDA 17 to the south-west and PDA 18 to the south.
- 7.8.34 Long-term, reversible impacts are expected as a result of changes to the barn's setting from the presence of the Scheme in the landscape. This includes the presence of PV Arrays and deer fencing surrounding them. These effects will be primarily from PDA 14 approximately 100m north-west of the barn as the PV Arrays within PDA 17 and PDA 18 will be screened by Rolls Farmhouse (**DBH35**) and by modern farm buildings to the south and west of the barn. The barn is also subject to the same screening afforded to Rolls Farmhouse by the woods to the west and south-west. When the barn is viewed from Terling Hall Road the only part of the Scheme visible will be part of PDA

18 approximately 120m away from the viewer. The experience of the setting will also be changed for those travelling towards the barn on Terling Hall Road to whom PV Arrays within PDA 14 will be visible when travelling south and within PDA 17 and 18 will be visible when travelling north.

- 7.8.35 The barn's association with its listed farmhouse (**DBH35**) will be unchanged. An area in excess of 4ha around the farm complex will be left undeveloped which increases to approximately 7ha with the addition of the woodland to the south-west which will also be undeveloped. The setting to the north-east of the barn, which is comprised entirely of agricultural land, is outside the Order limits and will remain as it is within the existing baseline. The presence of the Scheme will not prevent understanding of the asset as an historic farm building. There will however be some impact on the ability to appreciate the asset within the surrounding rural landscape, both in views from within the Order limits and when travelling along Terling Hall Road in either direction. Due to the restricted height of the Scheme, the screening provided by the existing farm buildings and the proportion of the setting that will remain unchanged, the magnitude of impact on the cottage is expected to be **low**, resulting in a **minor adverse effect** on this asset of **medium value**. This effect is not considered significant in EIA terms.
- 7.8.36 Brent Hall (**DBH5**) (Grade II) has architectural and historic interest as one of the larger 'polite' houses in the area. The asset's setting has been changed by the removal of the farm complex to the south-west of the house and the creation of a lake in a disused quarry to the south and west, but it retains much of the area of its grounds as seen on historic maps of the late 19th century. The Site Entrance and southern terminus of the Primary Access Track will be located on Boreham Road approximately 400m north-west of the house and the termini of three Secondary Access Tracks will be located within PDA 21 to the north-west of the asset and PDAs 22 and 26 to the east. Temporary effects are expected as a result of construction traffic movement and the transportation of construction equipment on Boreham Road and on the Primary and Secondary Access Tracks. Temporary effects are also expected from construction activity within PDAs 21, 22 and 26.
- 7.8.37 Long-term, reversible impacts are expected as a result of changes to the asset's setting from the presence of the Scheme to the north-west, north and north-east of the asset including the presence of PV Arrays and deer fencing surrounding them. While the ZTV (**Figure 10-8**) shows theoretical visibility of PV Arrays from the asset, the house is largely screened from PDAs 21, 22 and 26 by tree planting within its grounds albeit with glimpsed views at all times of year and especially during the winter months when the trees have lost their leaves. There is considerable planting to the north of the asset in the grounds of Russell Green on the north side of Boreham Road that will provide effective screening of PDA 21 and on the north-east side of the road adjacent to the boundary of PDA 26 where an existing hedgerow to be retained within the Order limits will also provide screening. The main impact will therefore come from the PV Arrays within PDA 22 opposite the asset to the north-west. There will also be a changed experience for viewers travelling in either direction on Boreham Road in which the formerly agricultural land to the east will be covered by PV Arrays for a distance of approximately 925m with a break of approximately 225m adjacent to the grounds of Russell Green. Given the

extent of the asset's grounds remaining and the lack of development to the west of Boreham Road the presence of the Scheme will not prevent understanding of the asset as an historic country house and there will be little impact on the ability to appreciate the asset within the surrounding rural landscape. Due to the restricted height of the Scheme and the screening currently in place, the magnitude of impact on the house is expected to be **low**, resulting in a **minor adverse effect** on this asset of **medium value**. This effect is not considered significant in EIA terms.

- 7.8.38 Birds Farmhouse (**DBH4**) (Grade II) is located north-east of Boreham Road in an agricultural setting surrounded by farmland. The timber-framed house has historic interest for its 16th century date and architectural interest for its vernacular style and use of materials. The farmhouse is well screened from the Scheme by mature trees close by and mature hedgerows on the boundary of the Order limits. The asset is located approximately 330m south-west of the Primary Access Track and may experience some temporary effects as a result of construction traffic movement and the transportation of construction equipment. The asset may also experience temporary effects from construction activity within the PDAs to the north, south and east, the closest of which is PDA 11, approximately 175m to the north.
- 7.8.39 Long-term, reversible impacts are expected as a result of changes to the asset's setting from the presence of the Scheme within PDA 11 to the north (approximately 175m distant), to the north-east within PDA 15 (approximately 350m), to the east within PDA 15 (approximately 350m) and to the south-east within PDAs 19 and 20 (approximately 250m). The Scheme in these locations will include the presence of PV Arrays and deer fencing. The farmhouse is however largely screened from the Scheme by considerable planting in its immediate environs and by intervening hedgerows in all directions and the ZTV (**Figure 10-8**) shows only limited theoretical visibility of the Scheme from the asset. The asset will continue to be surrounded by a considerable area of farmland allowing full appreciation of it as an historic farmhouse. The presence of the Scheme some distance from the asset and well screened from it will have little impact on our ability to appreciate the asset within the surrounding rural landscape. Due to the restricted height of the Scheme and the screening currently in place, the magnitude of impact on the farmhouse is expected to be **very low**, resulting in a **negligible effect** on this asset of **medium value**. This effect is not considered significant in EIA terms.
- 7.8.40 Barn of Noake's Farm (**DBH13**) (Grade II) once stood to the north of the Noakes Farmhouse which has been removed while other farm buildings to the south of the barn remain. The remains of a moat that once surrounded the farm complex are in evidence on all sides of the building. A stretch of the Primary Access Track will run approximately 100m to the north-west of the barn and one of the Secondary Access Tracks will terminate approximately 100m north-east of the barn. Temporary effects are expected as a result of construction traffic movement and the transportation of construction equipment on these routes.
- 7.8.41 Long-term, reversible impacts are expected as a result of changes to the asset's setting from the presence of the Scheme in the form of PD Arrays and the deer fences surrounding them within PDA 6 to the north-west, PDA 8 to

the north-east, PDA 12 to the south-east and PDA 11 to the south. However, an area of approximately 7ha around the asset has been removed from the Solar PV Arrays (Work No. 1) and is proposed as habitat enhancement. The undeveloped area will link with the Set-Aside area around Scarletts Farmhouse to create a corridor approximately 1.2km long linking the two moated farm complexes. The barn will be approximately 140m from PDA 6, 100m from PDA 8, and 150m from PDA 12. PDA 11 will be closer to the barn at approximately 70m but the asset is well screened in this direction by vegetation including mature deciduous and coniferous trees as it is in all directions apart from to the north-west where the screening has been cut to afford a view over the fields. In this direction the existing hedgerow will be retained, gapped up and maintained to a height of 3m. To the north-east of the asset a new hedgerow with a minimum height of 3m is proposed to screen the PV Arrays within PDA 8. The presence of the Scheme will not prevent understanding of the asset as a former historic barn or of its setting as a former moated farm complex but there will be impact on the ability to appreciate the asset within the surrounding rural landscape. The magnitude of impact on the barn is expected to be **low**, resulting in a **minor adverse effect** on this asset of **medium value**. This effect is not considered significant in EIA terms.

7.8.42 Lawns Farmhouse (**DBH42**) (Grade II) is located on the east side of Boreham Road. It should be noted that the asset's location is not as shown on the NHLE map but approximately 75m to the west. The asset's heritage value stems from its historic interest as a post-medieval farmhouse and from its architectural interest for its use of vernacular style and materials. The farmhouse has an agricultural setting with farmland surrounding it on both sides of Boreham Road. Boreham Road will be used to approach the Site Entrance approximately 1.25km south of the asset. The terminus of one of the Secondary Access Tracks will be located approximately 225m north-east of the asset. The asset may experience some temporary effects as a result of construction traffic movement and the transportation of construction equipment along Boreham Road towards the Site Entrance and on the Secondary Access Track. Long-term, reversible impacts are expected as a result of changes to the asset's setting from the presence of the Scheme to the north and north-east where PDA 6 will be between approximately 100m and 180m distant, and to the east where PDA 11 will be approximately 375m distant. The Scheme in these locations will include the presence of PV Arrays and the deer fencing around them. The farmhouse is largely screened from the Scheme by tree planting in its immediate vicinity, a mature hedge with trees to the north, a mature hedge to the north-east, and mature hedges and modern farm buildings to the east. The ZTV (**Figure 10-8**) shows only limited theoretical visibility of the PV Arrays from the asset. Between PDAs 6 and 11 the area of ecologically advanced Set-Aside proposed around Barn of Noake's Farm (**DBH13**) will start, linking with the proposed ecologically advanced Set-Aside around Scarletts Farmhouse (**DBH34**) to form a corridor approximately 850m in length. To the north the Solar PV Arrays (Work No. 1) is set back from the road at a distance of between 50m and 100m. Screening by planting in this direction is also good apart from some gaps including a lengthy gap to the north of the Dog and Gun Public House. The presence of the Scheme will not prevent understanding of the asset as an historic farmhouse and as the majority of the asset's setting will remain unchanged there will be little impact

on the ability to appreciate the asset within the surrounding rural landscape. Due to the restricted height of the Scheme and the screening currently in place, the magnitude of impact on the farmhouse is expected to be **low**, resulting in a **minor adverse effect** on this asset of **medium value**. This effect is not considered significant in EIA term.

- 7.8.43 Little Holts (**DBH59**) (Grade II) is located on the eastern side of Boreham Road. The house's heritage value stems from its historic interest as a 17th and 18th century dwelling. It has a rural setting with farmland surrounding it to the north, east and south-east. The setting to the south and west has been changed with the introduction of mineral extraction. Boreham Road will be used to approach the Site Access approximately 1.15km north of the asset. A Secondary Access Track will be located within PDA 28 approximately 220m east of the asset. The asset may experience some temporary effects as a result of construction traffic movement and the transportation of construction equipment on Boreham Road and the Secondary Access Route. Long-term, reversible impacts are expected as a result of changes to the asset's setting from the presence of the Scheme to the north, east and south-east. where it will be approximately 100m distant. A new native species hedgerow is proposed along the Order limits with a biodiverse grassland margin between the Order limits and PDA 28. The Scheme in these locations will include the presence of PV Arrays and deer fencing. The house is screened from the Scheme to the north by Stocks Cottages and the planting around them, but there will be views across the Scheme from the asset to the east and south-east. There will be no visibility from the asset or from its immediate setting of the proposed Battery Storage Location or Office, Warehouse and Plant Storage area. The presence of the Scheme will not prevent understanding of the asset as an historic cottage, but there will be impact on the ability to appreciate the asset within the surrounding rural landscape, especially in the long views from the east and south-east. The magnitude of impact on the farmhouse is expected to be **low**, resulting in a **minor adverse effect** on this asset of **medium value** prior to the consideration of additional mitigation. This effect is not considered significant in EIA terms.
- 7.8.44 Toppinghoe Hall (**DBH30**) (Grade II) is located to the north of the A12 and west of Terling Hall Road. Its heritage value stems from its historic interest as the remains of a 16th century house and its architectural interest for its combination of polite and vernacular style and materials. The house is associated with two further listed buildings, Part of Former House and Attached Garden Wall Approximately 15 Metres South of Toppinghoe Hall (**DBH20**) (Grade II) and Garden Wall (Part Incorporated in a Garage) Approximately 30 Metres South West of Toppinghoe Hall (**DBH47**) (Grade II). The two have historic interest as remains of the former house and archaeological interest for their potential to yield information about it. The three assets have a rural setting which has been altered by the presence of the mainline railway and A12 road to the south.
- 7.8.45 The group of assets is located approximately 500m south-east of the area proposed for the Longfield Substation and BESS Phase 1 and Phase 2 areas. The area contains stretches of the BESS Internal Tracks and the group may experience some temporary effects as a result of construction traffic movement and the transportation of construction equipment within the BESS

Phase 1 and Phase 2 areas. No vehicles will use the existing tracks to the north of the asset and the east of Toppinghoehall Wood. There will be no visibility of these movements from the assets but movement will be visible from within the assets' setting to the north of the group. Impact will also occur as a result of noise during working hours at all times of the year and from light during working hours in the winter months.

- 7.8.46 Long-term, reversible impacts are expected as a result of changes to the asset's setting from the presence of the Scheme to the north-west, where it will be approximately 500m distant. The Scheme in this location will include the presence of the BESS and the Longfield Substation with transformers, switchgear and control room. The assets will be screened from this part of the Scheme by Toppinghoehall Wood and the ZTV (**Figure 10-8**) shows no theoretical visibility of any part of the Scheme from the assets. The easternmost part of BESS Phase 1 and the Longfield Substation will be visible in views from locations to the north of the assets from which the assets will also be visible to the south. When built, BESS Phase 2 will also be visible from these locations. A buffer of new native woodland planting is between Toppinghoehall Wood and Lost Wood to screen the proposed battery storage and substation and there will be an area of approximately 9ha of arable land between the assets and the screening that will remain in the same state as exists within the current baseline. The presence of the Scheme will not prevent understanding of the assets as the constituent parts of an historic country house and there will be very little impact on our ability to appreciate the assets within the surrounding rural landscape. The magnitude of impact on the group of assets is expected to be **very low**, resulting in a **negligible effect** on these assets of **medium value**. This effect is not considered significant in EIA terms.
- 7.8.47 Wallaces Farmhouse (**DBH43**), (Grade II) is located approximately 570m west and 700m north of the proposed Grid Connection Route to the existing Bulls Lodge Substation to the north of the A12. The farmhouse's heritage value lies in its historic interest as one of the older farmhouses in the area and in its architectural interest for its use of vernacular style and materials. The farmhouse has an isolated rural setting which has been altered in recent years by local mineral extraction. The asset may experience some temporary effects as a result of construction traffic movement, the transportation of construction equipment and construction activity on the Grid Connection Route. Given the distances involved and the screening by planting in place and impact is likely to be confined to noise during working hours at all times of the year and from light during working hours in the winter months. Long-term impacts as a result of changes to the asset's setting are not expected as the cables will run underground. The ZTV (**Figure 10-8**) shows no theoretical visibility of any element of the Scheme from the asset or from its immediate setting. The presence of the Scheme will not prevent understanding of the asset as an historic farmhouse and there will be no impact on the ability to appreciate the asset within the surrounding rural landscape. The magnitude of impact on the group of assets is expected to be **very low**, resulting in a **negligible effect** on this asset of **medium value**. This effect is not considered significant in EIA terms.
- 7.8.48 Barn About 850m East North East of New Hall (**DBH25**), (Grade II) is located approximately 750m west of the end of the Order limits, where the proposed

Grid Connection Route connects to the existing Bulls Lodge Substation. The barn is screened from the Scheme by the southern extent of an area of woodland known as The Grove and is not expected to experience temporary effects as a result of construction traffic movements. The ZTV (**Figure 10-8**) shows no theoretical visibility of any element of the Scheme from the asset or from locations within its setting and no long-term effects as a result of the presence of the Scheme in the landscape. No impact is predicted in relation to this asset.

- 7.8.49 Ridley Hall (**DBH58**), (Grade II) is located approximately 800m north of the Order limits. The hall is located lower than the Scheme and at some distance from it. No access tracks run near to the asset which is screened from the Scheme by Sandy Wood, by planting along the course of the River Ter and by the natural landform which rises by approximately 20m between the river and PDA 7, the closest developed part of the Solar PV Arrays (Work No. 1) to the south. While the ZTV (**Figure 10-8**) shows some theoretical visibility from within the asset's setting the asset is not expected to experience either temporary effects as a result of construction traffic movements or long-term effects as a result of the presence of the Scheme in the landscape. No impact is predicted in relation to this asset.
- 7.8.50 Three Ashes Farmhouse (**DBH15**), (Grade II) is located approximately 1.4km north of the Order limits. No access tracks run near to the asset which is screened from the Scheme by Sandy Wood and by planting along the course of the River Ter. While the ZTV (**Figure 10-8**) shows some theoretical visibility from within the asset's setting the asset is not expected to experience either temporary effects as a result of construction traffic movements or long-term effects as a result of the presence of the Scheme in the landscape. No impact is predicted in relation to this asset.
- 7.8.51 Church of St Mary the Virgin (**DBH37**), (Grade I) is located to the east of the village of Great Leighs approximately 500m from the Order limits. The church's heritage value stems from its historic and archaeological interest as a medieval parish church of early date and its architectural interest for its style and materials, particularly its flint and rubble construction and unusual round tower. The church's setting is the parish of Great and Little Leighs, but it is separated from its village by almost 2km and is mostly surrounded by farmland with the grade II listed Lyons Hall forming an important part of its setting. The northern terminus of a Secondary Access Track in PDA 2 is approximately 600m south-east of the asset which may experience some temporary effects as a result of construction traffic movement and the transportation of construction equipment on the track. It may also experience some impact as a result of construction activity within PDA2. Given the distance of the Scheme from the asset and the intervening screening by vegetation this impact is likely to be restricted to noise during working hours at all times of the year and from light during working hours in the winter months. The Scheme is screened from the church by dense planting to the immediate south and east of the asset and woodland and hedgerows along the boundary of the Order limits. This screening includes a broad band of woodland between approximately 30m and 55m wide at Lyonshall Spring which will screen the asset from PDA 2. Or is proposed to extend this screening to the north with a native woodland buffer

(minimum width 25m) just inside the Order limits in order to screen the asset from PDA 1.

- 7.8.52 While the ZTV (**Figure 10-8**) shows visibility of the Scheme in the form of PV Arrays and surrounding deer fences within PDAs 1, 2, 3 and 4, at ground level the Scheme will not be visible from the church owing to the screening afforded by the planting within the churchyard. The church's tower is visible from a number of locations within the northern part of the Site and long-term, reversible impacts are expected as a result of changes to the asset's setting. Those viewing the church tower from these locations will experience a broad area of PV Arrays rather than the agricultural land that makes up the current baseline. The experience of those travelling north towards the church on Boreham Road will not be greatly changed as the nearest developed part of the Scheme (PDA 4) will be passed almost 1km before the church is reached. The church's relationship with the grade II listed Lyons Hall will not be changed. The presence of the Scheme will not prevent understanding of the asset as an historic parish church but there will be some impact on the ability to appreciate the asset within the surrounding rural landscape. The magnitude of impact on the asset is expected to be **very low**, resulting in a **minor adverse effect** on this asset of **high value** prior to the consideration of additional mitigation. This effect is not considered significant in EIA terms.
- 7.8.53 Wakerings Farmhouse (**DBH1**), (Grade II) is located approximately 420m west of the Order limits on Leighs Road. The farmhouse has historic interest as a house with 15th, 16th and 17th century parts and architectural interest for its use of vernacular style and materials and for its polite early 19th century re-fronting in brick. The farmhouse has an agricultural setting being surrounded by farmland on all sides. The stretch of Boreham Road to the east of the asset will not be used to approach the Site Access and the farmhouse will not experience temporary effects as a result of construction traffic movements. The ZTV (**Figure 10-8**) shows very limited theoretical visibility of the Scheme from the farmhouse but PDAs 2 and 4 will be visible to the east of Boreham Road before the viewer turns onto Leighs Road when approaching the asset from the north. Long-term, reversible impacts are therefore expected as a result of changes to the asset's setting but these are expected to be slight as any view of the Scheme will have been left approximately 450m behind before the asset is reached and there is agricultural land on both sides of Leighs Road for the entire distance. The presence of the Scheme will not prevent understanding of the asset as an historic farmhouse and as views of the Scheme will be left approximately 450m before the asset is reached there will be little impact on our ability to appreciate the asset within the surrounding rural landscape. The magnitude of impact on the asset is expected to be **very low**, resulting in a **negligible effect** on this asset of **medium value**. This effect is not considered significant in EIA terms.
- 7.8.54 Edenvale (**DBH2**), (Grade II) is located approximately 300m west of the Order limits on Leighs Road. Its heritage value stems from its historic interest as an early 19th century double-pile cottage and architectural interest for its use of vernacular style and materials. The cottage has an agricultural setting being surrounded by farmland on all sides. The stretch of Boreham Road to the east of the asset will not be used to approach the Site Access and the asset will not experience temporary effects as a result of construction traffic movements.

The ZTV (**Figure 10-8**) shows no theoretical visibility of the Scheme from the cottage and very limited theoretical visibility from within its setting. PDAs 2 and 4 will be visible to the east of Boreham Road before turning onto Leighs Road when approaching the asset from the north. Long-term, reversible impacts are therefore expected as a result of changes to the asset's setting but these are expected to be slight as any view of the Scheme will have been left approximately 250m behind before the asset is reached and there is agricultural land on both sides of Leighs Road for the entire distance. The presence of the Scheme will not prevent understanding of the asset as an historic cottage and as views of the Scheme will be left approximately 250m before the asset is reached there will be little impact on the ability to appreciate the asset within the surrounding rural landscape. The magnitude of impact on the asset is expected to be **very low**, resulting in a **negligible effect** on this asset of **medium value**. This effect is not considered significant in EIA terms.

7.8.55 Poplars Cottage (**DBH39**), (Grade II) is located approximately 475m west of the Order limits on Leighs Road. Its heritage value stems from its historic interest as a late 18th or early 19th century cottage and architectural interest for its use of vernacular style and materials including a thatched roof. The cottage has an agricultural setting being surrounded by farmland on all sides. The stretch of Boreham Road to the east of the asset will not be used to approach the Site Access and the cottage will not experience temporary effects as a result of construction traffic movements. The ZTV (**Figure 10-8**) shows no theoretical visibility of the Scheme from the cottage and very limited theoretical visibility from within its setting. PDAs 2 and 4 will be visible to the east of Boreham Road before turning onto Leighs Road when approaching the asset from the north. Long-term, reversible impacts are therefore expected as a result of changes to the asset's setting but these are expected to be slight as any view of the Scheme will have been left approximately 500m behind before the asset is reached and there is agricultural land on both sides of Leighs Road for the entire distance. The presence of the Scheme will not prevent understanding of the asset as an historic cottage and as views of the Scheme will be left over 500m before the asset is reached there will be little impact on the ability to appreciate the asset within the surrounding rural landscape. The magnitude of impact on the asset is expected to be **very low**, resulting in a **negligible effect** on this asset of **medium value**. This effect is not considered significant in EIA terms.

7.8.56 The Parish Church of St Mary the Virgin (**DBH48**), (Grade I) is located to the west of the village of Fairstead approximately 2.6km from the Order limits. The church's heritage value stems from its historic and archaeological interest as a medieval parish church of early date and its architectural interest for its style and materials, particularly its use of flint rubble, the inclusions of Roman brick and its shingled octagonal broach spire. The church has a rural setting outside the village and is surrounded by farmland. The setting extends to the wider parish which is large and extends to the north of the Order limits. Due to the distance of the church from the Scheme, the closest Primary and Secondary Access Tracks are approximately 2.5km away, the church is not expected to experience temporary effects as a result of construction traffic movements. While the ZTV (**Figure 10-8**) shows very limited theoretical visibility of the Scheme from the church the Scheme will not be visible from the church at

ground level. The church spire is visible from a number of locations at the northern end of the Order limits and long-term, reversible impacts are expected as a result of changes to the asset's setting. Those viewing the church spire from these locations will experience a broad area of PV Arrays rather than the agricultural land that makes up the current baseline. The approaches to the church from all directions will be unaffected by the Scheme, the presence of which will not prevent understanding of the asset as an historic parish church and there will be little impact on the ability to appreciate the asset within the surrounding rural landscape. The magnitude of impact on the asset is expected to be **very low**, resulting in a **minor adverse effect** on this asset of **high value**. This effect is not considered significant in EIA terms.

- 7.8.57 Four listed buildings, Shuttleworth (**DBH72**); Hobbits (**DBH73**); Shoulderstick Haul (**DBH74**); and Powers Farmhouse (**DBH75**) are located in close proximity to the construction road that will link the main body of the Solar Farm Site to the A130 and the wider road network. The assets are expected to experience some temporary effects as a result of construction traffic movement and the transportation of construction equipment on the track. Traffic movement will be restricted to an estimated maximum of 50 HGV journeys per day in either direction which will have little impact on the ability to understand the assets as historic dwelling and farmhouses. The ZTV (**Figure 10-8**) shows no theoretical visibility of the Scheme from Hobbits, Shoulderstick Haul or Powers Farmhouse and extremely limited theoretical visibility from Shuttleworth. The magnitude of impact on the assets is expected to be **very low**, resulting in a **negligible** effect on these assets of **medium value**. These effects are not considered significant in EIA terms.

Non-designated built heritage assets

- 7.8.58 Almshouses at Great and Little Leighs (**NBH1**) is now a single dwelling but is shown on historic maps as a row of almshouses with three units. The almshouses have historic interest as part of the social history of the area and architectural interest for their use of red and yellow brick. They have a rural setting just off Boreham Road. The almshouses are located approximately 700m north-west of the Order limits and slightly further from the Solar PV Arrays (Work No. 1) itself. The stretch of Boreham Road on which the asset stands will not be used for site access and the asset is screened from the Scheme by trees along the course of the River Ter and by trees and hedgerows on the Order limits. There will be no impact as a result of traffic from construction traffic movement, the transportation of construction equipment or construction activity. While the ZTV (**Figure 10-8**) shows theoretical visibility of the Scheme (in the form of PV Arrays within PDAs 1 2 and 3) from the asset the distance of the Scheme from the asset and the intervening screening by vegetation combine so that the presence of the Scheme will not prevent understanding of the asset as former almshouses and there will be no impact on the ability to appreciate the asset within the surrounding rural landscape. The magnitude of impact on the almshouse is expected to be **very low**, resulting in a **negligible effect** on this asset of **low value**. This effect is not considered significant in EIA terms.
- 7.8.59 Berwick Place (**NBH4**) is a large country house located between Terling Hall Road and the Order limits. The house's heritage value stems from its historic

interest as a large country house designed by the noted architect Thomas Hopper and its architectural interest for its classical design. Although non-designated, professional judgement dictates that the asset is of medium, rather than low value. The house has a parkland setting that extends to the surrounding agricultural land. The house is located approximately 675m south-east of the area proposed for the Longfield Substation and BESS Phase 1 and Phase 2 areas. The area contains stretches of the BESS Internal Tracks and the asset may experience some temporary effects as a result of construction traffic movement and the transportation of construction equipment within the BESS Phase 1 and Phase 2 areas. The house is partially screened from this area by planting within its own grounds and along a hedgerow running north-west/south-east field boundary between the house's grounds and Lost Wood. It is unlikely that there will be visibility of these movements from the asset and impact is likely to be confined to noise during working hours at all times of the year and from light during working hours in the winter months.

- 7.8.60 Long-term, reversible impacts are possible as a result of changes to the asset's setting from the presence of the Scheme to the north-west, where it will be approximately 675m distant. The Scheme in this location will include the BESS and Longfield Substation with transformers, switchgear and control room. The house is partially screened by planting within its own grounds and along a hedgerow running between the grounds and Lost Wood and the ZTV (**Figure 10-8**) shows no theoretical visibility of any aspect of the Scheme from the asset. However, both the Scheme, mainly in the form of the Longfield Substation and BESS Phase 1 and Phase 2 areas, and the house will be visible in views from locations between the two and from locations to the north and south of that area. A buffer of new native woodland planting is proposed between Toppinghoehall Wood and Lost Wood to screen the proposed battery storage and substation. The presence of the Scheme will not prevent understanding of the asset as an historic country house and there will be very little impact on the ability to appreciate the asset within the surrounding rural landscape. The magnitude of impact is expected to be **very low**, resulting in a **negligible effect** on this asset of **medium value**. This effect is not considered significant in EIA terms.
- 7.8.61 Stocks Farm (**NBH9**) is located on the eastern side of Boreham Road. The farmhouse's heritage value stems from its historic interest as an 18th or early 19th century farmhouse and its architectural interest for the use of a polite, classical style. It has an agricultural setting with farmland surrounding it to the north, east and south-east. The setting to the west has already been changed with the introduction of mineral extraction. The Scheme's Primary Access Track will be located approximately 400m north-east of the farmhouse with Secondary Access Tracks extending west into PDA 26 and south into PDA 28. It is expected therefore that the asset will experience temporary effects as a result of construction traffic movement and the transportation of construction equipment on these tracks. The asset will also experience temporary effects as a result of construction activity within PDA 26 to the north and PDA 28 to the east and south-east. Long-term, reversible impacts are expected as a result of changes to the asset's setting from the presence of the Scheme within PDAs 26 and 28 to the north, east and south-east where it will be between

approximately 75m and 100m distant. The Scheme in these locations will include the presence of PV Arrays and deer fencing. The house is partially screened from the Scheme to the north-east, east and south-east by modern and traditional farm buildings but there will be views across the Scheme from the asset to the north and south. The presence of the Scheme will not prevent understanding of the asset as an historic farmhouse but there will be impact on the ability to appreciate the asset within the surrounding rural landscape, especially in the long views from the north, east and south. The magnitude of impact on the farmhouse is expected to be **low**, resulting in a **negligible effect** on this asset of **low value**. This effect is not considered significant in EIA terms.

- 7.8.62 The Dog and Gun Public House (**NBH14**) is located on the west side of Boreham Road to the west of the Scheme. The building has historic interest as a public house dating to the 19th century or earlier. Its architectural interest has been diminished by the application of weatherboarding and modern windows. The pub's setting is Boreham Road from which it has traditionally taken its custom. While this stretch of Boreham Road will not be used for site access a Secondary Access Track will be located approximately 260m east of the asset within PDA 6. The asset is partially screened from the Scheme in this direction by a hedgerow on the eastern side of Boreham Road but it is expected that the asset will experience temporary effects as a result of construction traffic movement and the transportation of construction equipment on the Secondary Access Track. It will also experience temporary effects as a result of construction activity within PDA 6. Long-term, reversible impacts are expected as a result of changes to the asset's setting from the presence of the Scheme within PDA 6 on the eastern side of Boreham Road. The Scheme in these locations will include the presence of PV Arrays and deer fencing. There will be a buffer of approximately 50m between the road and the Scheme and the asset will be approximately 60m from the Scheme at its closest point. Screening by vegetation is strong between the asset and the Order limits but there is no screening to the north and only patchy screening to the south so that the setting will be changed on the approaches to the pub from both directions. The presence of the Scheme will not prevent understanding of the asset as an historic public house and there will be little impact on the ability to appreciate the asset within the surrounding landscape. The magnitude of impact on the public house is expected to be **low**, resulting in a **negligible effect** on this asset of **low value**. This effect is not considered significant in EIA terms.
- 7.8.63 Whitehouse Farm (**NBH15**) is located on the eastern side of Boreham Road to the west of the Scheme. The farmhouse's heritage value stems from its historic interest as an 18th or early 19th century farmhouse and its architectural interest for the use of a polite, classical style. It has an agricultural setting with farmland surrounding it on both sides of Boreham Road. While this stretch of Boreham Road will not be used for site access Secondary Access Tracks will be located approximately 200m east and north-east of the asset within PDAs 4 and 5. It is expected that the asset will experience temporary effects as a result of construction traffic movement and the transportation of construction equipment on these tracks. The farmhouse is partially screened from this area by planting within its own grounds and there will be little visibility of these

movements from the asset. Impact is likely to be confined to noise during working hours at all times of the year and from light during working hours in the winter months. Long-term, reversible impacts are expected as a result of changes to the asset's setting from the presence of the Scheme to the north-east and south-east where it will be between approximately 50m and 200m distant. The Scheme in these locations will include the presence of PV Arrays and deer fencing. The house is partially screened from the Scheme in all directions by hedges which contain mature trees for much of their length. To the north the Solar PV Arrays (Work No. 1) has been restricted to allow uninterrupted views across the fields. The western boundary of PDA 4 has been designed to follow an historic field boundary running north from the farmhouse's grounds and planting will be reintroduced along the field boundary at a height of no less than 2.5m to minimise impact. The existing track leading east from the farmhouse will be retained and a native tree belt with a minimum width of between 10m and 15m is proposed to the south to screen PDA 5. The track will connect the asset to Scarlett's Wood and the extensive area of set-aside around Scarlett's Farm. This in turn links with the set-aside around Noake's Barn and back to Boreham Road, a distance of over 1.5km. The presence of the Scheme will not prevent understanding of the asset as an historic farmhouse but there will be impact on the ability to appreciate the asset within the surrounding rural landscape. The magnitude of impact on the farmhouse is expected to be **low**, resulting in a **negligible effect** on this asset of **low value**. This effect is not considered significant in EIA terms.

- 7.8.64 Chantry Farm (**NBH18**) is located on Chantry Lane to the east of Waltham Road. The farmhouse's heritage value stems from its historic interest as a 19th century or earlier farmhouse and its architectural interest for its use of brick and render. It has an agricultural setting with farmland surrounding it on all sides. It is expected that the asset may experience temporary effects as a result of construction traffic movement and the transportation of construction equipment. Long-term, reversible impacts are expected as a result of changes to the asset's setting from the presence of the Scheme approximately 500m to the north. The Scheme in this location will include the presence of PV Arrays and perimeter fencing and an area of BESS. The farmhouse is screened from the Scheme by multiple lines of hedgerow and the length of the theoretically visible edge of the Scheme amounts to just over 200m between two areas of woodland. The ZTV (**Figure 10-8**) shows limited theoretical visibility from the asset from either aspect of the Scheme. The presence of the Scheme will not prevent understanding of the asset as an historic farmhouse and there will be little impact on the ability to appreciate the asset within the surrounding rural landscape. The magnitude of impact on the farmhouse is expected to be **very low**, resulting in a **negligible effect** on this asset of **low value**. This effect is not considered significant in EIA terms.
- 7.8.65 Brick House Farm (**NBH19**) is located to the south of the Order limits, where the proposed Grid Connection Route connects to the existing Bulls Lodge Substation to the north of the A12. The farmhouse's heritage value lies in its historic interest as a 19th century or earlier farmhouse and in its architectural interest as a large, double-pile house with end wings. Although non-designated, professional judgement dictates that the asset is of medium,

rather than low value. The farmhouse's agricultural setting has been compromised by the mainline railway and A12 road to the south and by the electricity substation to the north-west. The Temporary Construction Compound will be located approximately 320m north-west of the asset and the proposed cable route approximately 90m to the south of the asset. The farmhouse will experience temporary effects as a result of construction traffic movement, the transportation of construction equipment and the construction of the cable route. Long-term impacts as a result of changes to the asset's setting are not expected as the cables will run underground. The ZTV (**Figure 10-8**) shown no theoretical visibility from the asset of any aspect of the Scheme). The presence of the Scheme will not prevent understanding of the asset as an historic cottage and there will be no impact on the ability to appreciate the asset within the surrounding rural landscape. The magnitude of impact on the farmhouse is expected to be **very low**, resulting in a **negligible effect** on this asset of **medium value**. This effect is not considered significant in EIA terms.

7.8.66 The baseline also identified the following non-designated cottages in proximity to the Order limits boundary and with the potential to experience impacts as a result of the Scheme:

- a) Beggar's Hall (**NBH2**);
- b) Porridge Pot Cottages (**NBH3**);
- c) Buftons House (**NBH5**);
- d) The Thatched Cottage (**NBH6**);
- e) Stocks Cottages (**NBH7**);
- f) Whalebone Cottages (**NBH8**);
- g) Russell Green Cottages (**NBH10**);
- h) Hedgerow Cottage (**NBH11**);
- i) Noakes House (**NBH12**);
- j) 3 and 4 Whitehouse Cottages (**NBH13**);
- k) Six Elms (**NBH16**); and
- l) Hankins Farm (**NBH17**).

7.8.67 The assets represent 19th century or earlier cottages and their locations outside of the larger settlements suggest they were the dwellings of agricultural workers. They have historic interest as part of the social and agricultural past of the area and architectural interest for their use of vernacular style and materials. The cottages have agricultural, often isolated settings which contribute to their significance. It is likely that all the assets will receive temporary effects as a result of construction traffic movement and the transportation of construction equipment. Long-term, reversible impacts of varying magnitude are expected as a result of changes to the assets' settings from the presence of the Scheme in the form of PV Arrays and deer fencing and these impacts are assessed below.

- 7.8.68 Beggar's Hall (**NBH2**) is located on the east side of Terling Hall Road with the Scheme on the opposite side of the road within fields that are part of the asset's setting. The Scheme continues south-east for approximately 100m to the boundary of Rolls Farm and north-west for a shorter distance. Further to the north-west an area taken out of the Solar PV Arrays (Work No. 1) to protect the setting of Sparrows Farm and its associated listed buildings extends for approximately 430m on the south-eastern side of Terling Hall Road. The Scheme in the vicinity of the asset is therefore restricted to a stretch of land opposite measuring approximately 175m and containing PV Arrays contained by deer fences. The deer fencing and PV arrays will be set back 50m from the asset and the screening provided by the hedgerow separating the road from the Order limits will be strengthened. Given the small area of the asset's setting that will be changed by the presence of the Scheme the magnitude of impact on the cottage is expected to be **low**, resulting in a **negligible effect** on this asset of **low value**. This effect is not considered significant in EIA terms.
- 7.8.69 Porridge Pot Cottages (**NBH3**) are located on Porridge Pot Lane to the north of Toppinghoehall Wood approximately 125m north of the Scheme. Other parts of the Scheme in the area are considerably further away (over 600m west and over 800m north), a result of the large area of land left out of the Solar PV Arrays (Work No. 1) to protect the setting of the grade I listed Ringers Farm [**DBH14**]. New native woodland buffer planting with minimum widths of 25m are proposed to the south of the asset. The Scheme will change only a small proportion of the asset's setting. The magnitude of impact on the cottage is expected to be **low**, resulting in a **negligible effect** on this asset of **low value**. This effect is not considered significant in EIA terms.
- 7.8.70 Buftons House (**NBH5**) is located south-west of Toppinghoehall Wood on a track running north-east from Waltham Road. The Order limits is located to the north of the asset in this location. A Secondary Access Track will be located approximately 150m north of the asset. A PRow connects the woodland to the east of the asset to Toppinghoehall Wood to the north and a broad area around it has been left out of the Solar PV Arrays (Work No. 1) which will afford views of Toppinghoehall Wood from the asset. The deer fence and PV Arrays in PDA 28 in proximity to the asset will be set back 50m and screened by proposed native species hedgerows. Much of the Scheme including the proposed BESS approximately 500m to the east and the majority of PDA 31 will be screened from the asset by existing woodland and change to the asset's setting will not be considerable. The magnitude of impact on the house is expected to be **low**, resulting in a **negligible effect** on this asset of **low value**. This effect is not considered significant in EIA terms.
- 7.8.71 The Thatched Cottage (**NBH6**) is located on the eastern side of Waltham Road. The Order limits is located to the north of the asset in this location with the deer fence and PV Arrays within PDA 28 set back 50m behind a biodiverse grassland margin. The Scheme will be reasonably well screened from the asset by existing planting in the cottage's grounds and along the boundary of Hunter's Moon to the east of the asset and a new native species hedgerow is proposed along the Order limits. change to the asset's setting will not be considerable. The magnitude of impact on the cottage is expected to be **low**,

resulting in a **negligible effect** on this asset of **low value**. This effect is not considered significant in EIA terms.

- 7.8.72 Stocks Cottages (**NBH7**) are located on the eastern side of Waltham Road. The Order limits is located to the north, east and south-east of the asset in this location with the deer fence and solar arrays set back 50m. Screening is not extensive in this location, particularly to the rear of the cottages facing the Scheme and along the eastern side of Waltham Road to the immediate north of the asset and a new native species hedgerow is proposed along the Order limits. The Scheme will change a large proportion of the asset's setting on the eastern side of the road and the magnitude of impact on the cottages is expected to be **medium**, resulting in a **minor adverse effect** on this asset of **low value**. This effect is not considered significant in EIA terms.
- 7.8.73 Whalebone Cottages (**NBH8**) are located on the western side of Waltham Road. The Order limits is located on the eastern side of the road and the Scheme will be screened from the asset to the north-east and east by the buildings and planting at Stocks Farm and to an extent to the south-east by the hedgerow on the east side of the road. A new native species hedgerow is proposed along the Order limits where they share a boundary with Waltham Road and approximately 100m from the road where the Order limits skirt Stock's Farm. The cottages' relationship with Stock's Farm, of which they may well have been a part, will not be affected and our ability to appreciate the assets as historic farm workers' cottages will be undiminished. The magnitude of impact on the cottages is expected to be **very low**, resulting in a **negligible effect** on this asset of **low value**. This effect is not considered significant in EIA terms.
- 7.8.74 Russell Green Cottages (**NBH10**) are located on Cranham Road approximately 100m south-west of the Order limits. The Site Entrance is located approximately 150m from the cottages which are expected to experience temporary effects as a result of construction traffic movement and the transportation of construction equipment into the Site. Given the screening by planting in place between the asset and the Site Entrance these effects are likely to be confined to noise during working hours at all times of the year and from light during working hours in the winter months. The same screening will mitigate impact as a result of the presence of the Scheme in the landscape as will the proposed new native hedgerow inside the Order limits where PDAs 19 and 21 face Waltham Road. The asset will receive some impact as a result of change to setting on the approach along Waltham Road from either direction but the magnitude of impact on the cottages is expected to be **very low**, resulting in a **negligible effect** on this asset of **low value**. This effect is not considered significant in EIA terms.
- 7.8.75 Hedgerow Cottage (**NBH11**) and Noakes House (**NBH12**) are located next door to each other on Noakes Lane to the east of Boreham Road. The Order limits extends to either side of Noakes Lane. The Solar PV Arrays (Work No. 1) will be set back approximately 150m to the rear of the assets with PDA 6 on the far (north-western) side of an existing field boundary that runs south-west/north east in parallel to Noakes Lane. Part of the Site's Primary Access Track will run approximately 180m and 200m north of the two assets between Secondary Access Tracks within PDA 6 and PDA 8. Temporary effects are

expected as a result of construction traffic movement and the transportation of construction equipment on these routes. The assets will also experience impact as a result of construction activities in PDAs 6 and 8 and within PDA 11 on the south-eastern side of Noakes Lane. Long-term, reversible impacts are expected as a result of changes to the assets' setting from the presence of PV Arrays and deer fencing in these three PDAs. The 150m set-back between the assets and PDA 6 continues to the north-east to join the area of set aside surrounding Scarlett's Farm and providing a corridor approximately 1.2km long between Boreham Road and the northern extent of the Set-Aside area. On the south-eastern side of Noakes Lane the screening provided by the hedgerow mitigates the effect and will be strengthened and 'gapped up' to provide further mitigation. The magnitude of impact is therefore expected to be **low**, resulting in a **negligible effect** on these assets of **low value**. This effect is not considered significant in EIA terms.

- 7.8.76 Three and Four Whitehouse Cottages (**NBH13**) are located on the eastern side of Boreham Road. The Order limits is located to the north-east, east and south-east of the assets in this location with the proposed deer fence and PV Arrays to be set back 50m. The set-back area continues south to meet the larger set-back area around Lawns Farm and the set-aside corridor between Barn of Noake's Farm and Scarlett's Farm. There is some existing screening by vegetation to the north-east and south-east, but this is weaker to the east of the assets. In mitigation a new native species hedgerow is planned along the eastern side of PDA in this location. While the Scheme will change a reasonably large proportion of the asset's setting there will be little change in the assets' significance and only a slight change in our ability to understand and appreciate the asset. The magnitude of impact on the cottages is expected to be **low**, resulting in a **negligible effect** on these assets of **low value**. This effect is not considered significant in EIA terms.
- 7.8.77 Six Elms (**NBH16**) is located approximately 580m north-east of the Order limits on Braintree Road. The asset will be further still from the Solar PV Arrays (Work No. 1) and will be screened from it by trees in Sandy Wood and along the route of the River Ter. As a result, while the ZTV (**Figure 10-8**) shows some theoretical visibility of the Scheme from the asset and from within the asset's setting the asset is not expected to receive any impact from it.
- 7.8.78 Hankins Farm (**NBH17**) is located on a lane running from east to west between Terling Hall Road and Waltham Road. The cottage stands in an area of rough pasture measuring approximately 2.7ha which is not part of the Order limits and which will separate the asset from the Scheme to the south by approximately 130m. There is also screening provided by the existing hedgerow that runs along the south side of this plot. A small area of existing planting to the north of the asset will screen it from PDA 9 to the north-west and north but the Scheme is relatively open to views towards PDA 10 to the north-east and PDA 14 to the east and south-east. New native hedgerow species are proposed in these locations as mitigation. The Scheme will change approximately 75% of the asset's setting including the setting along the approach to the asset from east and west and the magnitude of impact on the asset is expected to be **medium**, resulting in a **minor adverse effect** on this asset of **low value**. This effect is not considered significant in EIA terms.

Non-designated Archaeological Assets

- 7.8.79 A number of cropmarks likely to consist of medieval or post-medieval enclosures and field systems (**A35**) are recorded within the HER and were noted both in a recent geophysical survey and an assessment of aerial photographs. These were investigated by trial trenching and a number of features identified dating prehistoric, Roman, and post-medieval to modern periods. These are considered to be of medium heritage value based on archaeological and historical interest. They lie within the Solar PV Arrays (Work No. 1) (PDA 29) and will be impacted by a proposed Secondary Access Track. They will be subjected to localised truncation through the installation of PV Table foundations and from the excavation of the new access tracks. They may also be truncated by Distribution Cables' trenches. The magnitude of impact on these cropmarks is expected to be **medium**, resulting in a **moderate adverse effect** prior to additional mitigation on the significance of this asset of **medium value**. This effect is considered **significant** in EIA terms.
- 7.8.80 A single prehistoric pit and undated ditch (**A40**) recorded during trial trenching are located within the Order limits at the possible crossing point for the Grid Connection Cable. The works will truncate these assets of **low value**, resulting in a **medium** magnitude of impact. This impact will cause a **minor adverse effect**, which is not considered significant in EIA terms.
- 7.8.81 A series of trenches visible as cropmarks south of Lost Wood are understood to relate to First or Second World War Practice Trenches (**A41**). These assets are uncommon nationally and rare regionally in Essex. However, archaeological trial trenching has shown that features evaluated are not well preserved probably due to subsequent disturbance from agricultural activity. No datable material was identified to confirm whether the features date to the First or Second World War. The area may, however, contain features of the trial trenches that survive to a greater extent than those evaluated. A few features were found to be of prehistoric date rather than modern and contained prehistoric worked flints and lithic debitage. These features may be indicative of prehistoric settlement activities in the area and as such are considered of medium heritage value. The remains will be subjected to localised truncation from piled foundations for the PV Tables (PDA 33). The south-east edge of the known extent of the cropmarks will be truncated by topsoil stripping for a proposed secondary compound, representing less than 2% of the total known area of practice trenches. Remains which extend beyond the recorded cropmarks may be truncated or removed by the proposed BESS and construction groundworks for the Longfield Substation. As the majority of the asset will only be subjected to piling, most of the features will be preserved in situ. Nevertheless, the localised truncation will result in a **medium** magnitude of impact on an asset considered of **medium value**, resulting in a **moderate adverse effect** prior to the consideration of additional mitigation. This is considered **significant** in EIA terms.
- 7.8.82 The remains of a large ditch associated with the possible moated manor of Whitehouse Farm may be of medieval date (**A71**). However, no such ditch was recorded during trial trenching and as such is considered of very low value. The asset will be subjected to localised truncation from PV Table piled

- foundations (PDA 4) and possibly from Distribution Cables trenching. These impacts will cause a **low** magnitude of impact on an asset considered of **low value**, resulting in **negligible effect**. This is not considered significant in EIA terms.
- 7.8.83 Cropmarks of various rectilinear features and a ring ditch (**A92**) are situated within the Order limits at the connection point for Grid Connection Route. Assuming a worst-case scenario, the open-cut trench will truncate these assets of **medium value**, resulting in a **medium** magnitude of impact. This impact will cause a **moderate adverse effect** prior to additional mitigation, which is considered **significant** in EIA terms.
- 7.8.84 The proposed Grid Connection Route may cause local truncation or partial removal of cropmarks of linear features representing likely post-medieval field boundaries and a possible enclosure (**A104**). This would result in a **medium** magnitude of impact on an asset of **low value**, resulting in a **minor adverse effect**, which is not considered significant in EIA terms.
- 7.8.85 Cropmarks indicative of the presence of linear features, rectangular and rectilinear enclosures, and a possible oval enclosure (**A106**) are noted in the HER as extending into the Scheme near the Bulls Lodge Substation. The archaeological remains are considered of **medium** value and may be subjected to local truncation or removal by the proposed Grid Connection Route or a temporary compound. This would cause a **medium** magnitude of impact, resulting in a **moderate adverse effect** prior to additional mitigation. This is considered **significant** in EIA terms.
- 7.8.86 A number of cropmarks of various linear features and a series of amorphous features which represent past extraction pits of unknown date (**A109**) are located within the Order limits. The asset will be subjected to localised truncation from PV Table piled foundations (PDA 4) and possibly from Distribution Cables trenching. These impacts will cause a **low** magnitude of impact on an asset considered of **low value**, resulting in **negligible effect**. This is not considered significant in EIA terms.
- 7.8.87 Various cropmarks of former field boundaries of likely post-medieval date (**A146**; **A147**; **A148**) are noted within proposed Solar PV Arrays (Work No. 1) (PDA 23, PDA 8, and PDA 2 respectively). These assets would be impacted by the Scheme through local truncation from the piled foundations for the PV Tables and possibly by Distribution Cable trenches. These activities will result in a **low** magnitude of impact on assets considered of **low value**, resulting in a **negligible effect**. This is not considered significant in EIA terms.
- 7.8.88 A further set of cropmarks of former field boundaries of likely post-medieval date (**A149**) lies within the Order limits but where no development is currently planned. There will therefore be **no impact** on this asset.
- 7.8.89 A possible enclosure identified by the geophysical survey (**A151**) was investigated by trial trenching but no features of likely archaeological origin were identified. The possible asset is retained in the assessment but following the negative results of the trench survey is not considered to hold any archaeological or historical interest, and as such is considered of no heritage value. The Scheme will therefore cause no impact to this 'asset'.

Historic Landscape

- 7.8.90 Several aspects of the historic landscape are considered sensitive to change. These include areas identified by the Essex HLC as “Irregular Enclosure” and “Ancient Woodland”, as well as the historic boundaries of the modern field system resulting from boundary removal, all of which are considered of high sensitivity to change (high value).
- 7.8.91 It is proposed that the Scheme will retain existing field boundaries and hedgerows and it is not proposed to alter any aspects of ancient hedgerow or Ancient Woodland. The ability to view and understand these historic landscapes will therefore not be altered by the construction or presence of the Scheme. The historic landscape, considered of **high value**, will be subjected to a **very low** magnitude of impact, resulting in a **minor adverse effect**. This is not considered significant in EIA terms.

Protected Lanes

- 7.8.92 Noakes Farm Road (Chelmsford), Boreham Road, Birds Farm Road, and Terling Hall Road will not be directly impacted by the Scheme and all impacts to these lanes will arise due to changes to their setting from construction activities and the presence of the Scheme that may alter their values. Most values, including the Lanes’ historic integrity, diversity, group value, archaeological potential and biodiversity will remain largely unaffected.
- 7.8.93 Minor impacts to the integrity (value of 4) and diversity (value of 4) and archaeological potential (value of 2) of Noakes Farm Road (Braintree) will result from Work No 6(f) where proposed access tracks cross the Protected Lane at two locations, but these are impacts are considered negligible. The Scheme will result in no alteration to Terling Hall Road’s integrity (value of 4) or diversity (value of 4).
- 7.8.94 There is a very slight potential for previously unrecorded archaeological remains associated with the lanes to be truncated or removed by the Scheme, but as the archaeological association value assigned to each lane was relatively low (0 for Noakes Farm Road (Braintree & Chelmsford), 0 for Birds Farm Lane, 1 for Boreham Road, and 2 for Terling Hall Road) and since intrusive impacts will be restricted in the vicinity of the lanes due to the construction buffers, these values are not expected to diminish as a result of the construction of the Scheme.
- 7.8.95 The group value of the assets (1 for Noakes Farm Road (Braintree), 2 for Birds Farm Road, 2 for Noakes Farm Road (Chelmsford), 4 for Boreham Road, and 3 for Terling Hall Road) is derived from their association with, and connection to, a number of farmhouses, settlements, and other historic features in the area. Noakes Farm Road in particular provides a historic east-west connection between Waltham Road and Terling Hall Road and directly joins the former Noakes Farm and Sparrows Farm. These relationships will not be impacted by the presence of the Scheme, and as such the group value of the Protected Lanes will not be altered.
- 7.8.96 The only value which is likely to be reduced by the presence of the Scheme is their aesthetic value (2 for Noakes Farm Road (Braintree), 2 for Birds Farm Road, 3 for Noakes Farm Road (Chelmsford), 2 for Boreham Road, and 2 for

Terling Hall Road) through changes to their visual amenity, landscape, and overall rural character through increased traffic, light, and noise (refer to **Chapter 10: Landscape and Visual Amenity, Chapter 11: Noise and Vibration, and Chapter 13: Transport and Access** of this ES [EN010118/APP/6.1]).

- 7.8.97 There is some potential for Biodiversity (2 for Noakes Farm Road (Braintree), 3 for Birds Farm Road, 3 for Noakes Farm Road (Chelmsford), 3 for Boreham Road, and 2 for Terling Hall Road) to be enhanced by new hedgerow planting and ecological mitigation (refer to **Chapter 8: Ecology** of this ES).
- 7.8.98 Overall taking account of embedded mitigation by planting, the magnitude of impact on the locally designated assets is expected to be **low**, resulting in a **negligible** effect on these assets of **low value**. This effect is not considered significant in EIA terms.
- 7.8.99 Impacts during Scheme operation include those associated with the ongoing operation of the Solar Farm. This potentially includes impacts from security lighting, operational noise and associated traffic and glint and glare. No additional significant effects are considered likely through operation over and above those already identified during construction relating to the presence of the Scheme within an asset's setting.
- 7.8.100 It is not expected that the operation of the Scheme will result in any further intrusive activities and as such no impact to the archaeological resource is anticipated during this phase.

Table 7-7 Summary of Magnitude of Impact and Significance of Effect during the Construction and Operational Phase

Asset Ref. No.	Description	Sensitivity (Value)	Description of Impact	Magnitude of Impact	Effect Category	Significant effect (Yes / No)
C1	Terling Conservation Area	Medium	The Scheme will introduce infrastructure elements in the setting of this asset that are likely to affect the ability to understand and appreciate the asset as a rural settlement	Very low	Negligible	No
RPG1	Terling Place registered park and garden	Medium	The Scheme will introduce infrastructure elements in the setting of this asset that are likely to affect the ability to appreciate the asset within the rural landscape	Low	Minor adverse	No
DBH14	Ringers Farmhouse	High	Part of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Low	Moderate adverse	Yes
DBH57	Barn Approximately 5 Metres South-East of Ringers Farmhouse	Medium	Part of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Low	Minor adverse	No
DBH54	Leylands Farmhouse	Medium	Part of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Low	Minor adverse	No
DBH44	Barn and Stable Range Approximately 15 Metres North of Leylands Farmhouse	Medium	Part of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Low	Minor adverse	No

Asset Ref. No.	Description	Sensitivity (Value)	Description of Impact	Magnitude of Impact	Effect Category	Significant effect (Yes / No)
DBH34	Scarlett's Farmhouse	Medium	Part of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Low	Minor adverse	No
DBH55	Little Russells	Medium	The Scheme will come close to the asset, interrupting the open fields to the south-west and affecting its setting	Low	Minor adverse	No
DBH7	Sparrows Farmhouse	Medium	Part of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Low	Minor adverse	No
DBH8	Complete Complex of Farm Buildings East of Sparrow's Farmhouse Excluding the Barn, Listed Separately as Item 5/152	Medium	Part of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Low	Minor adverse	No
DBH45	Barn Approximately 30 Metres East of Sparrows Farmhouse	Medium	Part of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Low	Minor adverse	No
DBH35	Rolls Farmhouse	Medium	Part of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Low	Minor adverse	No
DBH9	Barn approximately 30 metres north west of Rolls Farmhouse	Medium	Part of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Low	Minor adverse	No
DBH5	Brent Hall	Medium	Part of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Low	Minor adverse	No

Asset Ref. No.	Description	Sensitivity (Value)	Description of Impact	Magnitude of Impact	Effect Category	Significant effect (Yes / No)
DBH4	Birds Farmhouse	Medium	Part of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Very low	Negligible	No
DBH13	Barn of Noake's Farm	Medium	The Scheme will come close to the asset, interrupting the open fields to the south-west and affecting its setting	Low	Minor adverse	No
DBH42	Lawns Farmhouse	Medium	Part of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Low	Minor adverse	No
DBH59	Little Holts	Medium	The Scheme will come close to the asset, interrupting the open fields to the south-west and affecting its setting	Low	Minor adverse	No
DBH30	Toppinghoe Hall	Medium	A small proportion of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Very low	Negligible	No
DBH20	Part of Former House and Attached Garden Wall Approximately 15 Metres South of Toppinghoe Hall	Medium	A small proportion of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Very low	Negligible	No
DBH47	Garden Wall (Part Incorporated in a Garage) Approximately 30 Metres South West of Toppinghoe Hall	Medium	A small proportion of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Very low	Negligible	No

Asset Ref. No.	Description	Sensitivity (Value)	Description of Impact	Magnitude of Impact	Effect Category	Significant effect (Yes / No)
DBH43	Wallaces Farmhouse	Medium	Some temporary effects as a result of construction traffic movement and the transportation of construction equipment.	Very low	Negligible	No
DBH25	Barn About 850 Metres East North East of New Hall	Medium	None	N/a	N/a	N/a
DBH58	Ridley Hall	Medium	None	N/a	N/a	N/a
DBH15	Three Ashes Farmhouse	Medium	None	N/a	N/a	N/a
DBH23	Parish Church of All Saints	High	Part of the rural setting of the asset, including views across the Scheme towards the asset, will be adversely affected	Very low	Minor adverse	No
DBH37	Church of St Mary the Virgin	High	Part of the rural setting of the asset, including views across the Scheme towards the asset, will be adversely affected	Very low	Minor adverse	No
DBH1	Wakerings Farmhouse	Medium	Part of the rural setting of the asset will be adversely affected	Very low	Negligible	No
DBH2	Edenvale	Medium	Part of the rural setting of the asset will be adversely affected	Very low	Negligible	No
DBH39	Poplars Cottage	Medium	Part of the rural setting of the asset will be adversely affected	Very low	Negligible	No
DBH48	The Parish Church of St Mary the Virgin	High	Part of the rural setting of the asset will be adversely affected	Very low	Negligible	No

Asset Ref. No.	Description	Sensitivity (Value)	Description of Impact	Magnitude of Impact	Effect Category	Significant effect (Yes / No)
DBH72	Shuttleworth	Medium	Part of the rural setting of the asset will be adversely affected	Very low	Negligible	No
DBH73	Hobbits	Medium	Part of the rural setting of the asset will be adversely affected	Very low	Negligible	No
DBH74	Shoulderstick Haul	Medium	Part of the rural setting of the asset will be adversely affected	Very low	Negligible	No
DBH75	Powers Farmhouse	Medium	Part of the rural setting of the asset will be adversely affected	Very low	Negligible	No
NBH1	Almshouses at Great and Little Leighs	Low	None	N/a	N/a	N/a
NBH2	Beggar's Hall	Low	The Scheme will come close to the asset, interrupting the open fields to the west and affecting its setting	Low	Negligible	No
NBH3	Porridge Pot Cottages	Low	Part of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Low	Negligible	No
NBH4	Berwick Place	Medium	Part of the rural setting of the asset, including views of the Scheme and asset, will be adversely affected	Very low	Negligible	No
NBH5	Buftons House	Low	Part of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Low	Negligible	No

Asset Ref. No.	Description	Sensitivity (Value)	Description of Impact	Magnitude of Impact	Effect Category	Significant effect (Yes / No)
NBH6	The Thatched Cottage	Low	Part of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Low	Negligible	No
NBH7	Stocks Cottages	Low	The Scheme will come close to the asset, interrupting the open fields to the east and affecting its setting	Medium	Minor adverse	No
NBH8	Whalebone Cottages	Low	Part of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Very low	Negligible	No
NBH9	Stocks Farm	Low	Part of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Low	Negligible	No
NBH10	Russell Green Cottages	Low	Part of the rural setting of the asset will be adversely affected	Very low	Negligible	No
NBH11	Hedgerow Cottage	Low	The Scheme will come close to the asset, interrupting the open fields to the east and west and affecting its setting	Low	Negligible	No
NBH12	Noakes House	Low	The Scheme will come close to the asset, interrupting the open fields to the east and west and affecting its setting	Low	Negligible	No
NBH13	3 and 4 Whitehouse Cottages	Low	The Scheme will come close to the asset, interrupting the open fields to the east and west and affecting its setting	Low	Negligible	No

Asset Ref. No.	Description	Sensitivity (Value)	Description of Impact	Magnitude of Impact	Effect Category	Significant effect (Yes / No)
NBH14	The Dog and Gun Public House	Low	The Scheme will come close to the asset, interrupting the open fields to the east and affecting its setting	Low	Negligible	No
NBH15	Whitehouse Farm	Low	Part of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Low	Negligible	No
NBH16	Six Elms	Low	None	N/a	N/a	N/a
NBH17	Hankins Farm	Low	The Scheme will come close to the asset, interrupting the open fields to the east and affecting its setting	Medium	Minor adverse	No
NBH18	Chantry Farm	Low	A small proportion of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Very low	Negligible	No
NBH19	Brick House Farm	Very low	Some temporary effects as a result of construction traffic movement and the transportation of construction equipment	Medium	Negligible	No
A35	Cropmarks of an enclosure and field boundary system Investigated by trial trenching (Site C) and dated to the late Iron Age/Romano-British and Roman periods. Two parallel ditches of prehistoric date and a large post-medieval to modern pit were also	Medium	Localised truncation as a result of the piling of solar panel foundations, low voltage trenches, high voltage trenches, and proposed access road	Medium	Moderate adverse	Yes

Asset Ref. No.	Description	Sensitivity (Value)	Description of Impact	Magnitude of Impact	Effect Category	Significant effect (Yes / No)
	recorded in the same area.					
A40	A prehistoric pit and an undated ditch were recorded in previous investigations.	Low	Localised truncation as a result of the excavation of a high voltage cable trench, access road, and easement	Medium	Minor adverse	No
A41	<p>Cropmarks of possible First World War practice trenches. These were investigated by trial trenching (Site B) and found to have survived poorly and no material remains were recovered.</p> <p>A number of linear cropmarks were found to contain prehistoric material and further such features were recorded by trial trenching in the area.</p>	Medium	Localised truncation as a result of the piling of solar panel foundations, low voltage trenches, high voltage trenches, proposed access road, topsoil stripping for a secondary compound, and intrusive activities relating to the installation and foundations of the BESS and substation	Medium	Moderate adverse	Yes
A71	Possible medieval moated site. An extension of the possible moat into the Order limits was investigated by trial trenching (Site E). Only a single undated post hole was uncovered.	Low	Localised truncation as a result of the piling of solar panel foundations and low voltage trenches	Low	Negligible	No

Asset Ref. No.	Description	Sensitivity (Value)	Description of Impact	Magnitude of Impact	Effect Category	Significant effect (Yes / No)
A92	Cropmarks of various rectilinear features and a ring ditch. Planned to be investigated by trial trenching, but no access was granted.	Medium	Localised truncation as a result of the excavation of a high voltage cable trench, access road, and easement	Medium	Moderate adverse	Yes
A104	Cropmarks of linear features representing likely post medieval field boundaries, also a possible enclosure.	Low	Localised truncation as a result of the excavation of a high voltage cable trench, access road, and easement	Medium	Minor adverse	No
A106	Cropmarks including linear features, rectangular and rectilinear enclosures and an oval enclosure.	Medium	Localised truncation as a result of the excavation of a high voltage cable trench, access road, easement and as a result of the erection of an extension to the Bulls Lodge substation	Medium	Moderate adverse	Yes
A109	Cropmarks of various linear features and a series of amorphous features which represent past extraction pits.	Low	Localised truncation as a result of the piling of solar panel foundations, low voltage trenches, high voltage trenches, and proposed access road	Medium	Minor adverse	No
A146	Cropmarks of former field boundaries of likely post-medieval date. Identified in aerial photographs and/or LiDAR data.	Low	Localised truncation as a result of the piling of solar panel foundations and low voltage trenches	Low	Negligible	No

Asset Ref. No.	Description	Sensitivity (Value)	Description of Impact	Magnitude of Impact	Effect Category	Significant effect (Yes / No)
A147	Cropmarks of extensive former field boundaries forming a cohesive field system of post-medieval date. Identified in aerial photographs and/or LiDAR data and targeted by trial trenching (Site G).	Low	Localised truncation as a result of the piling of solar panel foundations and low voltage trenches	Low	Negligible	No
A148	Cropmarks of former field boundaries of likely post-medieval date. Identified in aerial photographs and/or LiDAR data.	Low	Localised truncation as a result of the piling of solar panel foundations and low voltage trenches	Low	Negligible	No
A149	Cropmarks of former field boundaries of unknown date. Identified in aerial photographs and/or LiDAR data.	Low	None	N/a	N/a	N/a
A151	A possible enclosure identified by geophysical survey. This was investigated by trial trenching (Site F) and no archaeological remains were identified. Not further assessed.	None	N/A	N/A	N/A	N/A
Historic Landsc ape	-	High	Changes to intervisibility between field boundaries and woodlands as a result of the presence of the Scheme	Very Low	Minor adverse	No

Asset Ref. No.	Description	Sensitivity (Value)	Description of Impact	Magnitude of Impact	Effect Category	Significant effect (Yes / No)
BTELA NE8	Noakes Farm Road	Low	Changes to the aesthetic value of the Protected Lane.	Low	Negligible	No
BTELA NE3	Terling Hall Road	Low	Changes to the aesthetic value and possible minor loss of associated archaeological remains of the Protected Lane.	Low	Negligible	No

Decommissioning (not earlier than 2066)

- 7.8.101 Following the decommissioning of the Scheme, assessed as being during 2066 and 2067, it is considered that the Scheme, including the solar panels and associated infrastructure will be removed in accordance with the relevant statutory process at that time. It is expected that the selected method of decommissioning would have due regard to health and safety, environmental impact and benefits, and economic aspects which will be set out in a Decommissioning Environmental Management Plan, which will be secured through a DCO Requirement. Any future maintenance, decommissioning and / or reinstatement works would be subject to prevailing legislation, guidance and permitting regimes. Landscape restoration and remediation to suitable surfaces would be undertaken. This will result in the restoration of the rural landscape, bar areas of tree and hedge planting except where it was needed only for screening purposes. Decommissioning would not have any impact beyond the already-disturbed footprint of the Scheme; therefore, it is not anticipated that decommissioning activities would have a direct physical impact upon archaeological remains.
- 7.8.102 While there is the potential for temporary setting impacts during the removal of the PV Arrays and infrastructure, it is not anticipated that these will cause additional impacts over and above those reported in this chapter relating to the long-term presence of the Scheme within an asset's setting. Upon completion of decommissioning, the long-term adverse effects from the Scheme will cease to exist and the setting of the Terling Conservation Area, Terling Place RPG, listed buildings and non-designated buildings within 1km of the Scheme will be restored to the current baseline conditions. Similarly, the effect on the Protected Lanes will also cease, as they will be restored to baseline conditions. This will have a neutral impact on the significance of these assets.

7.9 Additional Monitoring, Mitigation and Enhancement Measures

- 7.9.1 A programme of pre-submission evaluation trenching (**Appendix 7D: Trial Trenching Report**) based on the results of an Aerial Investigation and Mapping (AIM) assessment (**Appendix 7B: Aerial Investigation and Mapping Report**) and geophysical survey (**Appendix 7C: Geophysical Survey**) was carried out in July and August 2021 in order to date and characterise archaeological assets likely to be impacted by the Scheme and to ground truth the geophysical survey results. This has resulted in a greater understanding of the level of preservation and significance of archaeological remains identified from non-intrusive surveys. NPS EN-1 requires that *“where the loss of the whole or a material part of a heritage asset’s significance is justified, the IPC [now Planning Inspectorate with the decision by the Secretary of State] should require the developer to record and advance understanding of the significance of the heritage asset before it is lost. The extent of the requirement should be proportionate to the nature and level of the asset’s significance. Developers should be required to publish this evidence and deposit copies of the reports with the relevant Historic Environment Record. They should also be required to deposit the archive generated in a local museum or other public depository willing to receive it”* (Ref 7-9, para. 5.8.20).

7.9.2 Therefore, where no appropriate design mitigation can be applied to the management of the archaeological resource, additional mitigation measures will be applied and set out in the Construction Environmental Management Plan (CEMP) **[EN010118/APP/7.10]**. It is proposed that:

- a) A programme of archaeological mitigation through record, such as strip map and record or detailed excavations to a level commensurate with the significance of the asset, will be implemented for archaeological remains within the footprint of the Scheme prior to the construction works targeting the assets identified in Table 7-8; and
- b) Where significant archaeological remains were identified by the evaluation, but where full excavation is not warranted ahead of construction, a programme of archaeological mitigation fieldwork and recording will be undertaken during construction works as a watching brief where required;

7.9.3 No mitigation is proposed for assets consisting of post-medieval field boundaries (**A146, A147, A148**) subject to negligible effects as further investigating these features would not inform relevant research frameworks. Where assets of greater sensitivity are impacted, the below mitigation is recommended, commensurate with the level of significance attributed to the asset.

7.9.4 It is proposed that the extensive areas of intrusive ground activities be subject to an archaeological evaluation prior to or during construction. This includes the following activities:

- a) Electrical Cables (Works Order Nos. 1, 4 and 6) – programme of archaeological trial trenching and/or archaeological monitoring of intrusive activities;
- b) Grid Connection Route (Work No 4) – programme of archaeological trial trenching and/or archaeological monitoring of intrusive activities;
- c) Bulls Lodge Substation Extension Site (Works Order No. 5) – programme of archaeological geophysical survey, trial trenching, and, if required, mitigation, ahead of construction.
- d) Earthworks (Work No. 6(h)) - intrusive works to be subject to a programme of archaeological trial trenching and/or archaeological monitoring;
- e) SuDS ponds and drainage Infrastructure (Work No. 6(i)) – intrusive works to be subject to a programme of archaeological trial trenching and/or archaeological monitoring;
- f) Access Tracks (Work Nos. 6(f) and 6(e)) – topsoil strip and intrusive works to be subject to archaeological monitoring and recording; and
- g) Temporary Construction Compounds (Work No. 7) – topsoil strip to be subject to archaeological monitoring and recording.

7.9.5 These activities could result in impacts to previously unrecorded archaeological resource which have not been investigated by the pre-determination programme of trial trenching evaluation and which could require a programme of archaeological recording ahead of or during construction. This

programme investigations will be commensurate with the significance of any such remains identified and agreed to in consultation with ECC.

- 7.9.6 It is proposed that additional archaeological works, both prior to and during construction, be secured by a DCO condition, the details of which would be submitted and agreed to with ECC in a Written Scheme of Investigation (WSI) as part of the Construction Environmental Management Plan (CEMP) in line with the scope set out within the CEMP.
- 7.9.7 No additional mitigation is proposed for the built heritage assets. The design has sought to minimise the impact as far as reasonably practicable through set-backs and planting, but there is no further mitigation that can be implemented to minimise the impact of the Scheme.

Table 7-8 Summary of Proposed Mitigation Targeting Known Archaeological Remains

Asset Ref. No.	Description of asset	Description of impact	Effect Category	Proposed Mitigation
A35	Cropmarks of an enclosure and field boundary system investigated by trial trenching (Site C) and dated to the late Iron Age/Romano-British and Roman periods. Two parallel ditches of prehistoric date and a large post-medieval to modern pit were also recorded in the same area.	Localised truncation as a result of the piling of solar panel foundations, low voltage trenches, high voltage trenches, and proposed access road.	Moderate adverse	Detailed excavation and recording
A40	A prehistoric pit and an undated ditch were recorded in previous investigations.	Localised truncation as a result of the excavation of a high voltage cable trench, access road, and easement.	Minor adverse	Trial trench evaluation ahead of construction and programme of archaeological mitigation ahead of or during construction.
A41	Cropmarks of possible First World War practice trenches. These were investigated by trial trenching (Site B) and found to have survived poorly and no material remains were recovered. A number of linear cropmarks were found to contain prehistoric material and further such features were recorded by trial trenching in the area.	Localised truncation as a result of the piling of solar panel foundations, low voltage trenches, high voltage trenches, proposed access road, topsoil stripping for a secondary compound, and intrusive activities relating to the installation and foundations of the BESS and substation.	Moderate adverse	Detailed excavation and recording
A71	Possible medieval moated site. An extension of the possible moat into the Order limits was investigated by trial trenching (Site E). Only a single undated post hole was uncovered.	Localised truncation as a result of the piling of solar panel foundations and low voltage trenches.	Negligible	Asset recorded adequately by trial trench evaluation. No further mitigation proposed
A92	Cropmarks of various rectilinear features and a ring ditch. Planned to be	Localised truncation as a result of the excavation of a high voltage cable trench, access road, and easement.	Moderate adverse	Trial trench evaluation ahead of construction and programme of

Asset Ref. No.	Description of asset	Description of impact	Effect Category	Proposed Mitigation
	investigated by trial trenching, but no access was granted.			archaeological mitigation ahead of or during construction.
A104	Cropmarks of linear features representing likely post medieval field boundaries, also a possible enclosure.	Localised truncation as a result of the excavation of a high voltage cable trench, access road, and easement.	Minor	Trial trench evaluation ahead of construction and programme of archaeological mitigation ahead of or during construction.
A106	Cropmarks including linear features, rectangular and rectilinear enclosures and an oval enclosure.	Localised truncation as a result of the excavation of a high voltage cable trench, access road, easement and as a result of the erection of an extension to the Bulls Lodge substation.	Moderate adverse	Trial trench evaluation ahead of construction and programme of archaeological mitigation ahead of or during construction.
A109	Cropmarks of various linear features and a series of amorphous features which represent past extraction pits.	Localised truncation as a result of the piling of solar panel foundations, low voltage trenches, high voltage trenches, and proposed access road.	Minor adverse	Archaeological monitoring of intrusive activities
A146	Cropmarks of former field boundaries of likely post-medieval date. Identified in aerial photographs and/or LiDAR data.	Localised truncation as a result of the piling of solar panel foundations and low voltage trenches.	Negligible	None
A147	Cropmarks of extensive former field boundaries forming a cohesive field system of post-medieval date. Identified in aerial photographs and/or LiDAR data and targeted by trial trenching (Site G).	Localised truncation as a result of the piling of solar panel foundations and low voltage trenches.	Negligible	None
A148	Cropmarks of former field boundaries of likely post-medieval date. Identified in aerial photographs and/or LiDAR data.	Localised truncation as a result of the piling of solar panel foundations and low voltage trenches.	Negligible	None

Asset Ref. No.	Description of asset	Description of impact	Effect Category	Proposed Mitigation
A149	Cropmarks of former field boundaries of unknown date. Identified in aerial photographs and/or LiDAR data.	None	N/a	None
A151	A possible enclosure identified by geophysical survey. This was investigated by trial trenching (Site F) and no archaeological remains were identified. Not further assessed.	N/A	N/A	Asset recorded adequately by trial trench evaluation. No mitigation proposed
Historic Landscape	-	Changes to intervisibility between field boundaries and woodlands as a result of the presence of the Scheme.	Minor adverse	None
BTELANE8	Noakes Farm Road (Braintree)	Changes to the aesthetic value of the Protected Lane and negligible changes to the integrity, diversity, and archaeological potential of the asset. Enhancement of biodiversity.	Negligible	None
BTELANE3	Terling Hall Road	Changes to the aesthetic value and possible minor loss of associated archaeological remains of the Protected Lane. Enhancement of biodiversity.	Negligible	None
NA	Noakes Farm Road (Chelmsford)	Changes to the aesthetic value and possible minor loss of associated archaeological remains of the Protected Lane. Enhancement of biodiversity.	Negligible	None
NA	Birds Farm Lane	Changes to the aesthetic value and possible minor loss of associated	Negligible	None

Asset Ref. No.	Description of asset	Description of impact	Effect Category	Proposed Mitigation
		archaeological remains of the Protected Lane. Enhancement of biodiversity.		
NA	Boreham Road	Changes to the aesthetic value and possible minor loss of associated archaeological remains of the Protected Lane. Enhancement of biodiversity.	Negligible	None

7.9.8 An archaeological mitigation strategy will be set out in a Written Scheme of Investigation (WSI), detailing proposed mitigation works and submitted prior to construction for review to Historic England and Essex County Council. This will be secured by a DCO requirement. Once agreed, this document would establish the objectives for the historic environment mitigation and set out the mechanisms for the appointed archaeological contractor to design and programme the fieldwork, undertake evaluation, analysis, reporting and archiving.

7.10 Residual Effects and Conclusions

- 7.10.1 This section summarises the residual significant effects of the Scheme on cultural heritage following the implementation of mitigation outlined in Section 7.9.
- 7.10.2 Significant residual effects are defined as moderate or major and listed in **Table 7-9**. These residual effects are assessed based on the Scheme described in this ES chapter and on the current understanding of the below ground archaeological remains. A programme of archaeological evaluation has informed on the presence/absence of below ground remains and on their cultural heritage value. Furthermore, additional mitigation have been reviewed and incorporated in the ES and significant effects to cultural heritage assets have been reduced where possible. This includes, but is not limited to, further set-backs, height reduction, and preservation *in situ*.
- 7.10.3 Moderate adverse, significant effects have been identified for the following built heritage asset arising during Construction and throughout Operation from the presence of the Scheme: Ringer's Farmhouse (**DBH14**).
- 7.10.4 All significant effects on built heritage assets are reversible on the removal of the Scheme, following completion of decommissioning.
- 7.10.5 Based on our current understanding of the value of previously recorded below ground cultural heritage, no significant effects to the archaeological resource are anticipated following a programme of archaeological recording as outlined in Section 7.9.

Table 7-9 Summary of Residual Effects

Asset Ref. No.	Description	Description of Impact	Significance of Effect without additional mitigation	Additional Mitigation/ Enhancement measure	Residual effect after mitigation
C1	Terling Conservation Area	The Scheme will introduce infrastructure elements in the setting of this asset that are likely to affect the ability to understand and appreciate the asset as a rural settlement	Negligible	None proposed	Negligible
RPG1	Terling Place registered park and garden	The Scheme will introduce infrastructure elements in the setting of this asset that are likely to affect the ability to appreciate the asset within the rural landscape	Minor adverse	None proposed	Minor adverse
DBH14	Ringers Farmhouse	Part of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Moderate adverse	None proposed	Moderate adverse
DBH57	Barn Approximately 5 Metres South-East of Ringers Farmhouse	Part of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Minor adverse	None proposed	Minor adverse
DBH54	Leylands Farmhouse	Part of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Minor adverse	None proposed	Minor adverse
DBH44	Barn and Stable Range Approximately 15 Metres North of Leylands Farmhouse	Part of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Minor adverse	None proposed	Minor adverse

Asset Ref. No.	Description	Description of Impact	Significance of Effect without additional mitigation	Additional Mitigation/ Enhancement measure	Residual effect after mitigation
DBH34	Scarlett's Farmhouse	Part of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Minor adverse	None proposed	Minor adverse
DBH55	Little Russells	The Scheme will come close to the asset, interrupting the open fields to the west and south-west and affecting its setting	Minor adverse	None proposed	Minor adverse
DBH7	Sparrows Farmhouse	Part of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Minor adverse	None proposed	Minor adverse
DBH8	Complete Complex of Farm Buildings East of Sparrow's Farmhouse Excluding the Barn, Listed Separately as Item 5/152	Part of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Minor adverse	None proposed	Minor adverse
DBH45	Barn Approximately 30 Metres East of Sparrows Farmhouse	Part of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Minor adverse	None proposed	Minor adverse
DBH35	Rolls Farmhouse	Part of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Minor adverse	None proposed	Minor adverse
DBH9	Barn approximately 30 metres north west of Rolls Farmhouse	Part of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Minor adverse	None proposed	Minor adverse

Asset Ref. No.	Description	Description of Impact	Significance of Effect without additional mitigation	Additional Mitigation/ Enhancement measure	Residual effect after mitigation
DBH5	Brent Hall	Part of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Minor adverse	None proposed	Minor adverse
DBH4	Birds Farmhouse	Part of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Negligible	None proposed	Negligible
DBH13	Barn of Noake's Farm	The Scheme will come close to the asset, interrupting the open fields to the south-west and affecting its setting	Minor adverse	None proposed	Minor adverse
DBH42	Lawns Farmhouse	Part of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Minor adverse	None proposed	Minor adverse
DBH59	Little Holts	The Scheme will come close to the asset, interrupting the open fields to the south-west and affecting its setting	Minor adverse	None proposed	Minor adverse
DBH30	Toppinghoe Hall	A small proportion of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Negligible	None proposed	Negligible
DBH20	Part of Former House and Attached Garden Wall Approximately 15 Metres South of Toppinghoe Hall	A small proportion of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Negligible	None proposed	Negligible
DBH47	Garden Wall (Part Incorporated in a Garage) Approximately	A small proportion of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Negligible	None proposed	Negligible

Asset Ref. No.	Description	Description of Impact	Significance of Effect without additional mitigation	Additional Mitigation/ Enhancement measure	Residual effect after mitigation
	30 Metres South West of Toppinghoe Hall				
DBH43	Wallaces Farmhouse	Some temporary effects as a result of construction traffic movement and the transportation of construction equipment.	Negligible	None proposed	Negligible
DBH25	Barn About 850 Metres East North East of New Hall	None	N/a	None proposed	N/a
DBH58	Ridley Hall	None	N/a	None proposed	N/a
DBH15	Three Ashes Farmhouse	None	N/a	None proposed	N/a
DBH23	Parish Church of All Saints	Part of the rural setting of the asset, including views across the Scheme towards the asset, will be adversely affected	Minor adverse	None proposed	Minor adverse
DBH37	Church of St Mary the Virgin	Part of the rural setting of the asset, including views across the Scheme towards the asset, will be adversely affected	Minor adverse	None proposed	Minor adverse
DBH1	Wakerings Farmhouse	Part of the rural setting of the asset will be adversely affected	Negligible	None proposed	Negligible
DBH2	Edenvale	Part of the rural setting of the asset will be adversely affected	Negligible	None proposed	Negligible
DBH39	Poplars Cottage	Part of the rural setting of the asset will be adversely affected	Negligible	None proposed	Negligible

Asset Ref. No.	Description	Description of Impact	Significance of Effect without additional mitigation	Additional Mitigation/ Enhancement measure	Residual effect after mitigation
DBH48	The Parish Church of St Mary the Virgin	Part of the rural setting of the asset will be adversely affected	Minor adverse	None proposed	Minor adverse
DBH72	Shuttleworth	Part of the rural setting of the asset will be adversely affected	Negligible	None proposed	Negligible
DBH73	Hobbits	Part of the rural setting of the asset will be adversely affected	Negligible	None proposed	Negligible
DBH74	Shoulderstick Haul	Part of the rural setting of the asset will be adversely affected	Negligible	None proposed	Negligible
DBH75	Powers Farmhouse	Part of the rural setting of the asset will be adversely affected	Negligible	None proposed	Negligible
NBH1	Almshouses at Great and Little Leighs	None	N/a	None proposed	N/a
NBH2	Beggar's Hall	The Scheme will come close to the asset, interrupting the open fields to the west and affecting its setting	Minor adverse	None proposed	Minor adverse
NBH3	Porridge Pot Cottages	Part of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Negligible	None proposed	Negligible
NBH4	Berwick Place	Part of the rural setting of the asset, including views of the Scheme and asset, will be adversely affected	Negligible	None proposed	Negligible
NBH5	Buftons House	Part of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Negligible	None proposed	Negligible

Asset Ref. No.	Description	Description of Impact	Significance of Effect without additional mitigation	Additional Mitigation/ Enhancement measure	Residual effect after mitigation
NBH6	The Thatched Cottage	Part of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Negligible	None proposed	Negligible
NBH7	Stocks Cottages	The Scheme will come close to the asset, interrupting the open fields to the east and affecting its setting	Minor adverse	None proposed	Minor adverse
NBH8	Whalebone Cottages	Part of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Negligible	None proposed	Negligible
NBH9	Stocks Farm	Part of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Negligible	None proposed	Negligible
NBH10	Russell Green Cottages	Part of the rural setting of the asset will be adversely affected	Negligible	None proposed	Negligible
NBH11	Hedgerow Cottage	The Scheme will come close to the asset, interrupting the open fields to the east and west and affecting its setting	Negligible	None proposed	Negligible
NBH12	Noakes House	The Scheme will come close to the asset, interrupting the open fields to the east and west and affecting its setting	Negligible	None proposed	Negligible
NBH13	3 and 4 Whitehouse Cottages	The Scheme will come close to the asset, interrupting the open fields to the east and west and affecting its setting	Negligible	None proposed	Negligible

Asset Ref. No.	Description	Description of Impact	Significance of Effect without additional mitigation	Additional Mitigation/ Enhancement measure	Residual effect after mitigation
NBH14	The Dog and Gun Public House	The Scheme will come close to the asset, interrupting the open fields to the east and affecting its setting	Negligible	None proposed	Negligible
NBH15	Whitehouse Farm	Part of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Negligible	None proposed	Negligible
NBH16	Six Elms	None	N/a	None proposed	N/a
NBH17	Hankins Farm	The Scheme will come close to the asset, interrupting the open fields to the east and affecting its setting	Minor adverse	None proposed	Minor adverse
NBH18	Chantry Farm	A small proportion of the rural setting of the asset, including views from the asset towards the Scheme, will be adversely affected	Negligible	None proposed	Negligible
NBH19	Brick House Farm	Some temporary effects as a result of construction traffic movement and the transportation of construction equipment	Negligible	None proposed	Negligible
A35	Cropmarks of an enclosure and field boundary system Investigated by trial trenching (Site C) and dated to the late Iron Age/Romano-British and Roman periods. Two parallel ditches of prehistoric date and a large post-medieval to modern pit were also	Localised truncation as a result of the piling of solar panel foundations, low voltage trenches, high voltage trenches, and proposed access road	Moderate adverse	Detailed excavation and recording ahead of construction	Minor adverse

Asset Ref. No.	Description	Description of Impact	Significance of Effect without additional mitigation	Additional Mitigation/ Enhancement measure	Residual effect after mitigation
	recorded in the same area.				
A40	A prehistoric pit and an undated ditch were recorded in previous investigations.	Localised truncation as a result of the excavation of a high voltage cable trench, access road, and easement	Minor adverse	Trial trench evaluation ahead of construction or programme of archaeological monitoring of intrusive activities.	Negligible
A41	<p>Cropmarks of possible First World War practice trenches. These were investigated by trial trenching (Site B) and found to have survived poorly and no material remains were recovered.</p> <p>A number of linear cropmarks were found to contain prehistoric material and further such features were recorded by trial trenching in the area.</p>	Localised truncation as a result of the piling of solar panel foundations, low voltage trenches, high voltage trenches, proposed access road, topsoil stripping for a secondary compound, and intrusive activities relating to the installation and foundations of the BESS and substation	Moderate adverse	Detailed excavation and recording	Minor adverse
A71	Possible medieval moated site. An extension of the possible moat into the Order limits was investigated by trial	Localised truncation as a result of the piling of solar panel foundations and low voltage trenches	Negligible	None proposed	Negligible

Asset Ref. No.	Description	Description of Impact	Significance of Effect without additional mitigation	Additional Mitigation/ Enhancement measure	Residual effect after mitigation
	trenching (Site E). Only a single undated post hole was uncovered.				
A92	Cropmarks of various rectilinear features and a ring ditch. Planned to be investigated by trial trenching, but no access was granted.	Localised truncation as a result of the excavation of a high voltage cable trench, access road, and easement	Moderate adverse	Trial trench evaluation ahead of construction and/or programme of archaeological monitoring of intrusive activities. Should trial trenching identify assets of regional or greater significance, then a programme of archaeological recording (mitigation) prior to or during construction may be required.	Minor adverse
A104	Cropmarks including linear features, rectangular and rectilinear enclosures and an oval enclosure.	Localised truncation as a result of the excavation of a high voltage cable trench, access road, and easement	Minor adverse	Trial trench evaluation ahead of construction and/or programme of archaeological monitoring of intrusive activities. Should trial trenching identify assets of regional or greater significance, then a programme of archaeological recording (mitigation) prior to or during construction may be required.	Negligible

Asset Ref. No.	Description	Description of Impact	Significance of Effect without additional mitigation	Additional Mitigation/ Enhancement measure	Residual effect after mitigation
A106	Cropmarks of various linear features and a series of amorphous features which represent past extraction pits.	Localised truncation as a result of the excavation of a high voltage cable trench, access road, easement and possibly as a result of the erection of an extension to the Bulls Lodge substation	Moderate adverse	Trial trench evaluation ahead of construction and/or programme of archaeological monitoring of intrusive activities. Should trial trenching identify assets of regional or greater significance, then a programme of archaeological recording (mitigation) prior to or during construction may be required.	Minor adverse
A109	Cropmarks of former field boundaries of likely post-medieval date. Identified in aerial photographs and/or LiDAR data.	Localised truncation as a result of the piling of solar panel foundations, low voltage trenches, high voltage trenches, and proposed access road	Minor adverse	Archaeological monitoring of intrusive activities	Negligible
A146	Cropmarks of former field boundaries of likely post-medieval date. Identified in aerial photographs and/or LiDAR data.	Localised truncation as a result of the piling of solar panel foundations and low voltage trenches		None proposed	Negligible
A147	Cropmarks of former field boundaries of unknown date. Identified in aerial	Localised truncation as a result of the piling of solar panel foundations and low voltage trenches	Negligible	None proposed	Negligible

Asset Ref. No.	Description	Description of Impact	Significance of Effect without additional mitigation	Additional Mitigation/ Enhancement measure	Residual effect after mitigation
	photographs and/or LiDAR data.				
A148	A possible enclosure identified by geophysical survey. This was investigated by trial trenching (Site F) and no archaeological remains were identified. Not further assessed.	Localised truncation as a result of the piling of solar panel foundations and low voltage trenches	Negligible	None proposed	Negligible
A149	-	None	N/A	None proposed	N/A
A151	Noakes Farm Road	N/A	N/A	None proposed	N/A
Historic Landscape	Terling Hall Road	Changes to intervisibility between field boundaries and woodlands as a result of the presence of the Scheme	Minor adverse	None proposed	Minor adverse
BTELA NE8	Cropmarks of an enclosure and field boundary system Investigated by trial trenching (Site C) and dated to the late Iron Age/Romano-British and Roman periods. Two parallel ditches of prehistoric date and a large post-medieval to modern pit were also	Changes to the aesthetic value of the Protected Lane.	Negligible	None proposed	Negligible

Asset Ref. No.	Description	Description of Impact	Significance of Effect without additional mitigation	Additional Mitigation/ Enhancement measure	Residual effect after mitigation
	recorded in the same area.				
BTELA NE3	A prehistoric pit and an undated ditch were recorded in previous investigations.	Changes to the aesthetic value and possible minor loss of associated archaeological remains of the Protected Lane.	Negligible	None Proposed	Negligible

7.11 Cumulative Effects

7.11.1 The cumulative schemes have been agreed in consultation with Essex County Council and are presented at **Appendix 5A: Long List of Cumulative Schemes** of this ES [EN010118/APP/6.2].

7.11.2 The following cumulative schemes are considered relevant to cultural heritage assets with the potential to impact some of the same receptors as the Scheme:

a) Site 3: Land North of Cranham Road, Little Waltham, Chelmsford, Essex. 16/01394/OUT.

- The Site is located immediately to the north of Order limits and includes narrow silos 28m high and mill buildings and load out facility 20m high. Boundary landscaping is included as embedded mitigation to screen views. The ZTV shows theoretical visibility across a large part of the Site using a bare earth model. When surface features are taken into account visibility is restricted (amongst designated assets for which this ES chapter has assessed there to be impact) to Ringers Farm. This asset is approximately 2.0km distant and the impact from this cumulative scheme will be negligible.
- **No cumulative impact is expected.**

b) Site 4: Chelmsford North East Bypass.

- The safeguarded corridor is approximately 1.8km from Brent Hall [DBH5], the closest designated built heritage asset for which this ES chapter has assessed there to be impact from the Scheme. This is outside the Area of Influence for the Chelmsford North East Bypass.
- **No cumulative impact is expected.**

c) Site 7: Bulls Lodge Quarry.

- Mineral extraction at Bulls Lodge Quarry is not expected to impact upon any built heritage asset with the potential to receive impact from Longfield Solar Farm.
- **Cumulative effects are not therefore expected.**

d) Site 32: Chelmsford Garden Village.

- The masterplan shares a boundary with the Order limits along the access route on Wheeler's Hill and Cranham Road and is approximately 150m from the developable part of the Longfield Solar Farm at Russell Green. The masterplan is at an early stage and options are still being considered but has the potential for impact on Brent Hall with a possible cumulative effect. Given the distance of the asset from the masterplan area of approximately 320m and intervening features including woodland and a water-filled gravel pit it is likely that impact on the asset as a result of the masterplan would be minor and any cumulative effect would not be significant.

7.11.3 Although archaeological remains that may be present within Longfield Solar Farm may extend beyond the boundary of the Order limits, it is reasonably

assumed that the determination of planning approval for each cumulative development will have been made in accordance with national, regional and local planning policy and guidance, within which buried archaeological assets would be a material consideration and would have included the provision of appropriate archaeological mitigation measures, including the requirement for investigation and recording. The effects of the cumulative developments would therefore not form additional impacts to the buried archaeological resources within the Longfield Solar Farm.

7.12 References

- Ref 7-1 Ministry of Housing, Communities and Local Government (MHCLG) (2019) National Planning Policy Framework.
- Ref 7-2 HMSO (2011) The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017).
- Ref 7-3 HMSO (2010) Infrastructure Planning (Decisions) Regulations 2010.
- Ref 7-4 HMSO (2008) The Planning Act 2008.
- Ref 7-5 HMSO (1990) Planning (listed Buildings and Conservation Areas) Act 1990.
- Ref 7-6 HMSO (1979); Ancient Monuments and Archaeological Areas Act 1979.
- Ref 7-7 HMSO (1983) National Heritage Act 1983.
- Ref 7-8 HMSO (2002) National Heritage Act 2002.
- Ref 7-9 DECC (2011) National Policy Statement for Energy (EN-1).
- Ref 7-10 DECC (2011) National Policy Statement for Renewable Energy Infrastructure (EN-3).
- Ref 7-11 DECC (2011) National Policy Statement for Electricity Networks Infrastructure (EN-5).
- Ref 7-12 Ministry of Housing, Communities and Local Government (2019) Planning Practice Guidance.
- Ref 7-13 Historic England (2015) Historic Environment Good Practice Advice in Planning Note 2. Managing Significance in Decision Taking in the Historic Environment.
- Ref 7-14 Historic England (2017) Historic Environment Good Practice Advice in Planning Note 3. The Setting of Heritage Assets (2nd edition).
- Ref 7-15 Historic England Advice Note 12 Statements of Heritage Significance: Analysing Significance in Heritage Assets (2019)
- Ref 7-16 Historic England Advice Note 15 Commercial Renewable Energy Development and the Historic Environment (2021)
- Ref 7-17 Chartered Institute for Archaeologists (2020) *Standard and Guidance for Historic Environment and Desk-Based Assessment*.
- Ref 7-18 Braintree District Council (2005) Adopted Local Plan.
- Ref 7-19 Braintree District Council (2013). Braintree District Protected Lanes Assessment. Essex County Council Place Services.
- Ref 7-20 Protected Lanes Study for Chelmsford Borough Council: Summary Report (2009). Essex County Council Place Services.
- Ref 7-21 Chelmsford City Council (2020) Local Plan.
- Ref 7-22 Braintree District Council Local Development Framework: Core Strategy (2011).
- Ref 7-23 Braintree District Council. Section 1 of the Braintree District Council Local Plan 2013-2033 North Essex Authorities' Shared Strategic Section 1 Plan (adopted February 2021),
- Ref 7-24 Braintree District Council. Section 2 of the Braintree District Council Local Plan (Emerging).
- Ref 7-25 Hatfield Peverel Parish Council 2019 (made December 2019).
- Ref 7-26 Boreham Neighbourhood Plane.
- Ref 7-27 Place Services 2020. Longfield Solar Scheme, near Terling: Aerial Investigation and Mapping Report. Unpublished report.

- Ref 7-28 Headland Archaeology 2021. Geophysical Survey Report of Longfield Solar Farm, Chelmsford, Essex. Headland Archaeology unpublished report CFSF20.
- Ref 7-29 Pre-Construct Archaeology 2021. Longfield Solar Farm, Terling, Essex: Archaeological Evaluation. PCA unpublished report R14667.
- Ref 7-30 Historic England 2016. Preserving Archaeological Remains: Decision-taking for Sites under Development.
- Ref 7-31 IEMA 2021. Principles of Cultural Heritage Impact Assessment in the UK.