PELHAM SPRING SOLAR FARM

ENVIRONMENTAL STATEMENT

MAIN STATEMENT

CHAPTER 6 – LANDSCAPE AND VISUAL IMPACT ASSESSMENT

On behalf of Low Carbon Solar Park 6 Limited

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Document Management.

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6 LANDSCAPE AND VISUAL ISSUES

6.1 INTRODUCTION

6.1.1 This chapter, prepared by Pegasus Environmental (part of Pegasus Group), considers the potential effects of the Proposed Development on the existing landscape character, landscape components and features, and visual amenity, during the construction, operation, and decommissioning stages. **Chapter 4** describes the Proposed Development in detail.

6.1.2 The main objectives of the assessment are as follows:

- To identify, evaluate and describe the current landscape character of the Application Site and its surroundings, and any notable individual landscape elements within it.
- To determine the sensitivity of the landscape to the type of development proposed.
- To identify potential visual receptors (i.e., people who would be able to see the development) and evaluate their sensitivity to the type of changes proposed.
- To identify and describe any change brought about by the Proposed Development in so far as they affect the landscape and/or views of it, and to evaluate the effects.
- To carry out a cumulative assessment with regard to the landscape features, landscape character, and visual amenity.

6.1.3 Landscape effects relate to the character of the Application Site and the surrounding area, and are concerned with landscape elements, landscapes of regional or local distinctiveness and special interest areas including landscape designations. Visual effects are experienced by people through changes in available views. These separate but related issues form the basis of this Landscape and Visual Impact Assessment (LVIA) **Chapter 6** of the Environmental Statement (ES).

6.1.4 The preliminary baseline review of the local planning policies, landscape character and visual receptors, carried out at the initial stage of the LVIA work, was not based on any specific pre-determined study area in order to capture any relevant receptors that may be present in the local landscape and could be informative to this **Chapter 6**. Following this preliminary stage and following an initial site visit, a Screened Zone of Theoretical Visibility was prepared to inform further work. Further field work was carried out, after which it transpired that the visibility of the Proposed Development would be extremely limited. Therefore, it was determined that the study area should be highly focused around the immediate area around the Application Site, at approximately 1km distance, with a selection of viewpoints located further away and deliberately included to illustrate the very limited inter-visibility between the Proposed Development and the long range visual receptors.

6.1.5 This **Chapter 6** also considers the proposed mitigation measures that will be implemented to prevent, reduce, and offset the identified landscape and visual effects, where appropriate, and whether such mitigation measures are compatible with the local landscape. The residual effects are those assessed following the implementation and successful establishment of the proposed mitigation planting and other mitigation measures adopted during the iterative design process.

6.1.6 The detailed methodology used for this **Chapter 6** is set out at **Appendix 6.1**. The photographic evidence has been prepared with regard to the current Technical Guidance Note 06/19 Visual Representation of Development Proposals published by the Landscape Institute.

6.1.7 In addition, this **Chapter 6** has been written with reference to Advice Note 7, Advice Note 9, and Advice Note 17 published by the Planning Inspectorate.

6.1.8 This LVIA should be read in conjunction with the supporting Planning Statement, Design and Access Statement (DAS), Development Zone Plan (Prepared by Low Carbon, drawing number LCS032- DZ-01), and the following:

- **Figure 6.1** Site and Cumulative Schemes Location Plan.
- **Figure 6.2** Landscape Strategy Plan.
- **Figure 6.3** Topography and Visual Receptors Plan.
- **Figure 6.4** Screened ZTV and Viewpoint Locations Plan.
- **Figure 6.5** Baseline Panoramas.
- **Figure 6.6** Photomontages.
- **Figure 6.7** Cumulative Zone of Theoretical Visibility - Land at Berden Hall Farm.
- **Figure 6.8** Cumulative Zone of Theoretical Visibility - Stocking Pelham BESS.
- **Appendix 6.1** LVIA EIA Methodology.
- **Appendix 6.2** Extract from Natural England NCA 86 South Suffolk and North Essex Clayland.
- **Appendix 6.3** Extract from Essex Landscape Character Assessment (2003).
- **Appendix 6.4** Extract from Braintree, Brentwood, Chelmsford, Maldon and Uttlesford Landscape Character Assessments.
- **Appendix 6.5** Detailed Visual Assessment.
- **Appendix 6.6** Residential Visual Amenity Assessment (RVAA).
- **Appendix 6.7** Extract from the Solar Farm near Stocking Pelham LVIA.
- **Appendix 6.8** Extract from the Stocking Pelham Battery Storage LVIA.
- **Appendix 6.9** Scoping out Cumulative Viewpoints Solar Farm near Stocking Pelham.
- **Appendix 6.10** Scoping out Cumulative Viewpoints Stocking Pelham BESS.
- **Appendix 6.11** Arboricultural Impact Assessment.
- **Appendix 6.12** Landscape & Ecological Management Plan.

Iterative Design

6.1.9 The Proposed Development has been subject to a number of changes, as a result of the iterative design process informed by the preliminary findings of the landscape and visual assessment, input from Pegasus' heritage consultant, and other disciplines. In addition, the currently proposed layout responds to the feedback provided by the Council as part of the pre-application consultation received in late June 2022, and aims to address the Council's concerns in relation to the previous scheme submitted by Low Carbon Solar Park 6 Limited on the same site and subject to refused planning application UTT/21/3356/FUL.

6.1.10 During the meeting held on the 8th of April 2022, the Council's heritage and landscape officers suggested changes to the Proposed Development. The pre-application advice received from the Council, dated 27th of June 2022, states: **"... it was recommended that the size and scale of the proposals would need to be reduced to lessen the harm on both the character and openness of the countryside and the upon surrounding heritage assets. It was suggested by both the landscape and conservation officers to remove as a minimum the two areas of panels in the south western part of the eastern site parcel and removed further panels from the north of the site in proximity to the existing public rights of way."**

6.1.11 The advice given by the Council stated: "The proposed mitigation measures will to some extent reduce the wider impact as new planting becomes established and matures over the lifespan of the development. It was acknowledged that the landscape harm would need to be assessed against the benefits of the scheme and whether these benefits would outweigh the harm when one applies the tilted balance in the assessment of the scheme. It was also recognised by the landscape officer that the existing electrical infrastructure adjacent to the site does weigh in favour of the proposed development at this location compared to other locations in the district."

6.2 ASSESSMENT APPROACH

6.2.1 The assessment considers the effect on the landscape resource (both direct effects and effects on how the landscape character is perceived) and the effect on visual amenity (views) in construction, operation, and decommissioning. Cumulative effects, arising from the effect of the Proposed Development in conjunction with other solar farms and energy related infrastructure are also considered.

Methodology

6.2.2 The LVIA has been undertaken with regard to the current best practice, as outlined within the following publications:

- Guidelines for Landscape and Visual Impact Assessment (3rd Edition, 2013) - Landscape Institute / Institute of Environmental Management and Assessment (hereafter referred to as GLVIA3).
- An Approach to Landscape Character Assessment (2014) - Natural England.
- An Approach to Landscape Sensitivity Assessment - To Inform Spatial Planning and Land Management (2019) - Natural England.
- Technical Guidance Note (TGN) 06/19 Visual Representation of Development Proposals, 17 September 2019 by the Landscape Institute.
- Technical Guidance Note (TGN) 1/20 Reviewing Landscape and Visual Impact Assessments (LVIAs) and Landscape and Visual Appraisals (LVAs), 10th January 2020 by the Landscape Institute.
- Technical Guidance Note (TGN) 2/21 Assessing landscape value outside national designations, May 2021 by the Landscape Institute.
- Advice Note 7, Advice Note 9, and Advice Note 17 published by the Planning Inspectorate.

6.2.3 A detailed methodology is presented in **Appendix 6.1** of the ES.

6.2.4 The Guidelines for Landscape and Visual Impact Assessment, hereafter referred to as the GLVIA3, state in paragraph 1.1 that:

> **"…Landscape and Visual Impact Assessment (LVIA) is a tool used to identify and assess the significance of and the effects of change resulting from development on both the landscape as an environmental resource in its own right and on people's views and visual amenity."**

6.2.5 GLVIA3 also states in paragraph 1.17 that when identifying landscape and visual effects there:

> **"…is a need for an approach that is in proportion to the scale of the project that is being assessed and the nature of the likely effects. Judgement needs to be exercised at all stages in terms**

of the scale of investigation that is appropriate and proportional."

6.2.6 GLVIA3 also recognises in paragraph 2.23 that:

"...professional judgement is a very important part of LVIA. While there is some scope for quantitative measurement of some relatively objective matters much of the assessment must rely on qualitative judgements"

6.2.7 All effects are taken as adverse unless otherwise stated.

Assessment of Effects

6.2.8 Landscape and visual effects are assessed through professional judgements on the sensitivity of landscape elements, landscape character, visual receptors and representative viewpoints combined with the predicted magnitude of change arising from the proposals.

6.2.9 The effects on landscape elements are limited to the area which would be occupied by the Proposed Development and include the direct physical change to the fabric of the Application Site, such as the addition or removal of landscape features.

6.2.10 Landscape character is defined as the "...distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from another, rather than better or worse." Effects on landscape character arise either through the introduction of new elements that physically alter the existing pattern, or through the visibility of the Proposed Development that changes the way in which landscape character is perceived. The published assessments by Natural England: South Suffolk and North Essex Clayland (NCA 86), the Essex Landscape Character Assessment and the Braintree, Brentwood, Chelmsford, Maldon and Uttlesford Landscape Character Assessments constitute the baseline landscape character within the local area, and the basis for the landscape character assessment. Landscape character effects are discussed in Section 6.4 with extracts from the published documents included in Appendix 6.2 – 6.4.

6.2.11 The visual assessment considers the indirect effects of the Proposed Development on the appreciation of the local landscape as experienced by key visual receptors associated with settlements, transport routes, and Public Rights of Way (PRoWs) as shown on **Figure 6.3** and **Figure 6.4**.

6.2.12 Various factors in relation to the value and susceptibility of landscape elements, landscape character, visual receptors or representative viewpoints are described in the LVIA methodology (see **Appendix 6.1**) and are cross referenced to determine the overall sensitivity as shown in **Table 6.1.**

Table 6.1 Overall sensitivity of landscape and visual receptors

		Value		
		High	**Medium**	**Low**
Susceptibility	**High**	High	High	Medium
	Medium	High	Medium	Medium
	Low	Medium	Medium	Low

Magnitude of Change– General Comments

6.2.13 Magnitude of change is defined in GLVIA3 as

> **"a term that combines judgements about the size and scale of the effect, the extent over which it occurs, whether it is reversible or irreversible and whether it is short or long term in duration."**[1]

6.2.14 Various factors contribute to the magnitude of change on landscape elements, landscape character, visual receptors and representative viewpoints as set out in **Appendix 6.1.**

Nature of Effects – General Comments

6.2.15 This **Chapter 6** includes a description of the likely significant effects of the Proposed Development on the receiving environment and description of any features of the development, or measures envisaged in order to avoid, prevent or reduce and, if possible, offset the likely significant adverse effects on the environment.

6.2.16 GLVIA3 includes an entry that states "…effects can be described as positive or negative (or in some cases neutral) in their consequences for views and visual amenity." GLVIA3 does not, however, state how negative or positive effects should be assessed, and this, therefore, becomes a matter of subjective judgement rather than a precisely defined criteria. Due to inconsistencies with the assessment of negative or positive effects a precautionary approach is applied to this Chapter 6 that assumes all landscape and visual effects are considered to be negative or adverse unless otherwise stated.

6.2.17 The approach to this (and the interpretation of positive, negative, or neutral effects) in the context of GLVIA3 and this **Chapter 6** is set out in detail in **Appendix 6.1.**

Duration of Effects

6.2.18 The duration of the effects of the Proposed Development would vary. It is anticipated that the construction stage of the Proposed Development would take approximately 20 weeks (5 months) to complete. Due to the relatively short duration of the construction stage, a phasing plan is not being proposed. It is assumed that the construction work would successively move from one part of the Application Site to another.

6.2.19 The operational phase of the Proposed Development is 40 years. The Proposed Development would be continuously operational throughout its lifecycle except for planned maintenance. At this stage, the Proposed Development is proposed to be decommissioned at the end of its operational life.

6.2.20 During the operational stage, the built elements including the solar modules would be visible in the long term. The proposed DNO 132kV substation and 132/33kV transformer, however, have been purposely located witing a discreet parcel of land, bordered by woodland, in order to limit their visibility and subsequent adverse effects. The majority of the grid connection running west to the existing Stocking Pelham National Grid Substation, and its extension, would be underground and would not be visible during the operational stage.

[1] Glossary, Page 158, GLVIA, 3rd Edition

6.2.21 Other features associated with the Proposed Development, such as construction traffic including cranes (one to two cranes moving across the site) and excavators, human presence, vehicle movement in and out of the Application Site, and activities within the temporary construction compound would only be visible in the construction and decommissioning stages. These are considered to bring about short term temporary effects.

6.2.22 The lighting associated with the construction and decommissioning phases would be limited where practical, subject to the timing of the construction activities and time of the year, and is considered to be short term effect. There is no permanent lighting proposed as part of the Proposed Development except for localised emergency security lighting in proximity to the substations and control buildings. Such lighting would be triggered by movement only and so would not be active for all hours of darkness. CCTV to be installed along the security fencing and onsite would utilise infrared technology.

Assessment of Significance

6.2.23 The purpose of an LVIA when produced in the context of an EIA is to identify any significant effects on the landscape and visual resource arising from the Proposed Development.

6.2.24 The sensitivity of the landscape and visual receptor and the magnitude of change arising from the Proposed Development are cross referenced in **Table 6.2** to determine the overall degree and significance of landscape and visual effects. This deviates from **Table 2.4** in **Chapter 2**.

Table 6.2: Landscape and Visual Effects Significance Matrix

Magnitude of Change	**Sensitivity of Receptor**				
		High	**Medium**	**Low**	**Negligible**
	High	Major	Major	Moderate	Negligible
	Medium	Major	Moderate	Minor to Moderate	Negligible
	Low	Moderate	Minor to Moderate	Minor	Negligible
	Negligible	Negligible	Negligible	Negligible	Negligible

6.2.25 It is important to note that the matrix above is intended to act as a guide to the assessment rather than a formulaic approach. The level (relative significance) of the landscape and visual effects is determined by combining judgements regarding the sensitivity of the landscape or view, the magnitude of change, the duration of effect and the reversibility of the effect. In LVIA, any judgement about what constitutes a significant effect is ostensibly a subjective opinion expressed as in this case by a competent and appropriately qualified professional assessor.

6.2.26 The level (relative significance) of effect is described as **Major, Moderate, Minor, or Negligible.** No Effect may also be recorded as appropriate where there are no effects.

6.2.27 In this **Chapter 6**, those effects described as **Major** may be regarded as material in the decision making process as required by the EIA Regulations. It should be noted that whilst an individual effect may be significant, it does not necessarily follow that the Proposed Development would be unacceptable in the planning balance.

6.2.28 In determining the level of residual effects, all mitigation measures are taken into account.

6.2.29 It is also noted, as stated in GLVIA3, that in some cases effects can be described as 'neutral' or 'beneficial' in their consequences.

Cumulative effects

6.2.30 Cumulative effects arise where the study areas for two or more solar farms, or other infrastructure considered relevant to the assessment, overlap so that the cumulative schemes are experienced at proximity where they may have a greater incremental effect. This means that the addition of the Proposed Development to a situation where other cumulative developments are apparent may result in a greater effect than where the Proposed Development is presen or seen by itself..

6.2.31 The cumulative assessment covers the potential cumulative effects on landscape character receptors and views. The extent of the Application Site does not overlap with any of the identified cumulative schemes. Therefore, there is no potential for any cumulative effects on the landscape elements associated with the Application Site to arise and this element of the LVIA is excluded from the cumulative assessment.

6.2.32 As with the assessment of effects of the Proposed Development, the significance of cumulative effects is determined through a combination of the sensitivity of the landscape receptor or view and the magnitude of change upon it. The sensitivity of landscape receptors and views is the same in the cumulative assessment as in the assessment of the Application Site itself. However, the definition of a significant cumulative effect is different from a significant effect in the assessment of the Proposed Development itself, and this means that the magnitude of change is also assessed in a different way.

6.2.33 Further details are provided in **Appendix 6.1**.

Graphic Techniques

6.2.34 Computer modelling is used to assist in the assessment process and to illustrate the effects of the Proposed Development through the production of a screened zone of theoretical visibility (SZTV). The SZTV plans illustrate the theoretical extent of where the Proposed Development (the solar modules, being the most relevant part of the Proposed Development) may be visible from, assuming 100% atmospheric visibility and includes the screening effect from vegetation and buildings, based on the following assumptions:

- Indicative woodland and building heights are modelled at 15m and 8m respectively.
- National Tree data, and vegetation height based on the survey data.
- The viewer height is set at 1.7m.
- Calculations include earth curvature and light refraction.

6.2.35 The SZTV plans have been generated using a Digital Terrain Model of OS Terrain 5 combined with OS Open Map Local data for woodland and buildings, and National Tree Map Data (2019) to create a Digital Surface Model (DSM).

6.2.36 Weather conditions and visibility were considered important aspects of the site visits for the photography. Where possible, visits were planned around clear sunny days with good visibility. Viewpoint locations were then, where possible, visited according to the time of day and the orientation of the sun to avoid front lit scenes.

Photographs facing into the sun were avoided where possible to prevent the silhouette effect. Adjustments to lighting were made in the rendering software, when preparing photomontages, to allow the Proposed Development to appear realistic in the view under the particular lighting and atmospheric conditions present at that time.

6.2.37 A number of guidance documents have been published that deal with site photography and photomontage techniques in general, with the Landscape Institute's *Technical Guidance Note 06/19 Visual Representation of Development Proposals* (2019), being the most recent one. Specific guidance in relation to wind farms has been available from the Scottish Natural Heritage since the early 2000s, but there is a lack of similar guidance for solar energy developments. In the absence of such guidance, Pegasus has developed its own guidance with regard to the published documents.

6.2.38 The Photomontages were produced in the following way:

- The photograph locations were GPS recorded. These single photographs were then stitched together using *PTGui* to create a panoramic image of 75 degrees in planar projection.
- The details of the development were modelled in *3d Studio Max* from elevation and site layout plans provided by the client.
- The stitched photograph was then used as a backdrop within *3d Studio Max* at full resolution. Using the known photograph location and then picking out features on the photograph these were cross-referenced with the same points taken from a number of sources including aerial imagery, Mastermap base mapping and survey points to accurately create a camera with *3d Studio Max* and *Vray* to match the camera height, location and image field of view and resolution, a process known as camera matching. These 'survey' points are taken across the image both foreground and distant in order to allow for increased accuracy. Where necessary additional features were created as 3d models within *3d Studio Max* to allow for better alignment.
- Once the alignment was correct the completed 3d model was then rendered onto the photography to complete a seamless image.
- For the images produced as photomontages, these were taken into *Photoshop* in order to apply the masking. Masking is where the foreground objects and features or features which may 'mask' the development within the original photography are redrawn in front of the rendered image in order to simulate how the development will look within the existing landscape.
- Once all the masking has been applied the image is then placed into the template within *InDesign* and the final pdf output is produced.

6.2.39 The precise location of each photograph is recorded using a hand-held GPS device and bearings from this location to prominent vertical features within the view (such as transmission masts) are also recorded using Google Earth software.

6.2.40 Whilst every effort has been made to ensure the accuracy of the photomontages, it must be appreciated that no photomontage could ever claim to be 100% accurate as there are a number of technical limitations in the model relating to the accuracy of the information available from Ordnance Survey and from the GPS. For a detailed discussion regarding the limitations of photomontages, please refer to *Visual Representation of Wind farms – Good Practice Guidance* (SNH commissioned report FO3 AA 308/2).

6.2.41 The photographs and photomontages used in this assessment are for illustrative purposes only and, whilst useful tools in the assessment, are not considered to be completely representative of what will be apparent to the human eye. The

assessments are carried out from observations in the field rather than from photographs.

Legislative and Policy Framework

6.2.42 The purpose of this section is to provide a review of the national and local planning policy relating to landscape and visual matters. Planning policy in general is dealt with in the Planning Statement that accompanies the planning application, which provides a detailed description of all relevant policies contained within the Development Plan. Those policies that are relevant in terms of landscape and visual issues are described in the following paragraphs.

6.2.43 The energy generating technology introduced as part of the Proposed Development is not specifically referenced by the current *Overarching National Policy Statement for Energy (EN-1)* and indeed the *National Policy Statement for Renewable Energy Infrastructure (EN-3).*

6.2.44 The current *Overarching National Policy Statement for Energy (EN-1)* acknowledges (in its paragraph 5.9.8) that: **"Virtually all nationally significant energy infrastructure projects will have effects on the landscape."** At the same time, it provides the following advice: **"Projects need to be designed carefully, taking account of the potential impact on the landscape. Having regard to siting, operational and other relevant constraints the aim should be to minimise harm to the landscape, providing reasonable mitigation where possible and appropriate."** The *EN-1* advises on the structure of environmental assessments and that all phases of the development should be assessed, having regard to the published landscape character assessments and associated studies, and **"…take account of any relevant policies based on these assessments in local development documents in England…"**, and visual effects. The stipulated structure of the assessment is adhered to in this **Chapter 6**. Most importantly the *EN-1* acknowledges that the temporary nature of some forms of development is a consideration (paragraph 5.9.16): **"In reaching a judgment, the IPC should consider whether any adverse impact is temporary, such as during construction, and/or whether any adverse impact on the landscape will be capable of being reversed in a timescale that the IPC considers reasonable."**

6.2.45 With regard to the published *EN-3,* this *Overarching National Policy Statement* does not provide any advice with regard to solar energy generating facilities, or substation infrastructure. The *EN-3* provides the following advice:

> **"2.5.50 Good design that contributes positively to the character and quality of the area will go some way to mitigate adverse landscape/visual effects. Development proposals should consider the design of the generating station, including the materials to be used in the context of the local landscape.**
>
> **2.5.51 Mitigation is achieved primarily through aesthetic aspects of site layout and building design including size and external finish and colour of the generating station to minimise intrusive appearance in the landscape as far as engineering requirements permit. The precise architectural treatment will need to be site-specific.**
>
> **2.5.52 The IPC should expect applicants to seek to landscape (…) sites to visually enclose them at low level as seen from surrounding external viewpoints. This makes the scale of the**

> **generating station less apparent, and helps conceal its lower level, smaller scale features. Earth bunds and mounds, tree planting or both may be used for softening the visual intrusion and may also help to attenuate noise from site activities."**

6.2.46 Whilst the above quote relates to biomass and waste combustion generating stations, the provided design advice is informative to the Proposed Development and has guided the development of the proposed mitigation planting (see **Figure 6.2**).

6.2.47 The relevant landscape planning policies are also detailed within the Draft Overarching National Policy Statement for Energy (EN-1) and Draft National Policy Statement for Renewable Energy Infrastructure (EN-3).

6.2.48 The draft *EN-1* explains that the Government's objective is to ensure the UK's supply of energy always remains secure, reliable, affordable and consistent with meeting the target to cut greenhouse gas emissions to net zero by 2050. It states (paragraph 2.3.2) that **"…this will require a step change in the decarbonisation of our energy system."**.

6.2.49 With fossil fuels still accounting for around 80% of the UK's energy supply in 2019, the draft *EN-1* states that the country "…will need to dramatically increase the volume of energy supplied from low carbon sources and reduce the amount provided by fossil fuel." (paragraph. 2.3.4), recognising in its paragraph 3.3.20 that "There is an urgent need for new generating capacity to meet our energy objectives.", with wind and solar as the lowest cost ways of generating electricity, the draft *EN-1* concludes in its paragraph 3.3.21 that "…a secure, reliable, affordable, net zero consistent system in 2050 is likely to be composed predominantly of wind and solar."

6.2.50 With regard to the *Draft EN-1*, the advice provided with regard to landscape and visual issues is largely similar to that of the current *EN-1*, thus is not reviewed in detail at this stage.

6.2.51 *The Draft EN-3*, however, has been expanded to include solar photovoltaic schemes emphasising the Government's commitment to sustained growth in solar capacity to ensure that the UK is 'on a pathway' that allows it to meet net zero emissions. The document affirms at paragraph 2.47.1 that:

> **"Solar farms are one of the most established renewable electricity technologies in the UK and the cheapest form of electricity generation worldwide. Solar farms can be built quickly and, coupled with consistent reductions in the cost of materials and improvements in the efficiency of panels, large-scale solar is now viable in some cases to deploy subsidy-free and at little to no extra cost to the consumer... As such solar is a key part of the government's strategy for low-cost decarbonisation of the energy sector."**

6.2.52 With regard to landscape and visual issues the *Draft EN-3* states in its paragraph 2.51.2: "Solar farms are likely to be in low lying areas of good exposure and as such may have a wider zone of visual influence than other types of onshore energy infrastructure." It also recognises that "…whilst it may be the case that the development covers a significant surface area, in the case of ground-mounted solar panels it should be noted that with effective screening and appropriate land topography the area of a zone of visual influence could be zero."

6.2.53 Following on from this the *Draft EN-3* recognises the importance of good layout designs and its relationship to the landscape features present within the developable area and mitigation measures:

> **"2.51.5 The applicant should have regard in both the design layout of the solar farm, and future maintenance plans, to the retention of growth of vegetation on boundaries, including the opportunity for individual trees within the boundaries to grow on to maturity. The landscape and visual impact should be considered carefully at the pre-application stage. Existing hedges and established vegetation, including mature trees, should be retained wherever possible. Trees and hedges should be protected during construction. The impact of the proposed development on established trees and hedges should be informed by a tree survey or a hedge assessment as appropriate.**
>
> **2.51.6 Applicants should consider the potential to mitigate landscape and visual impacts through, for example, screening with native hedges. Efforts should be made to minimise the use and height of security fencing. Where possible projects should utilise existing features, such as hedges or landscaping, to screen security fencing and use natural features, such as vegetation planting, to assist in site security. Projects should minimise the use of security lighting. Any lighting should utilise a passive infra-red (PIR) technology and should be designed and installed in a manner which minimises impact."**

6.2.54 The Government published the *Draft National Policy Statement for Electricity Networks Infrastructure (EN-5)* in September 2021. The *Draft EN-5*, taken together with the current *EN-1* and *Draft EN-1*, provides the primary policy for decisions taken by the Secretary of State on applications it receives for electricity network infrastructure.

National Planning Policy Framework (NPPF)

6.2.55 Whilst the above quoted *National Policy Statements* are the overarching policy, in the context of the Proposed Development, it was considered prudent to review the current *National Planning Policy Framework* (*NPPF*). The *NPPF* was revised and published on 20th July 2021 and sets out the Government's planning policies for England and how these are expected to be applied. *NPPF* paragraph 10 advises that:

> **"So that sustainable development is pursued in a positive way, at the heart of the Framework is a presumption in favour of sustainable development."**

6.2.56 It is important to note that the updated *NPPF* identifies solar farms as 'essential infrastructure' albeit in flood risk areas only.

6.2.57 Section 12 'Achieving well-designed places', paragraph 130, on pages 38 and 39, states that:

> **"Planning policies and decisions should ensure that developments:**
>
> **...b) are visually attractive as a result of good architecture, layout and appropriate and effective landscaping;**

> **c) are sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change (such as increased densities);**
>
> **d) establish or maintain a strong sense of place, using the arrangement of streets, spaces, building types and materials to create attractive, welcoming and distinctive places to live, work and visit…"**

6.2.58 Section 15 of the *NPPF* is concerned specifically with conserving and enhancing the natural environment. Paragraph 174 on page 50 states that:

> **"Planning policies and decisions should contribute to and enhance the natural and local environment by:**
>
> **a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);**
>
> **b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland…**
>
> **d) minimising impacts and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures…"**

6.2.59 Section 15 'Conserving and enhancing the natural environment', paragraph 175 on page 50 states that:

> **"Plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries."**

6.2.60 This establishes the principle of hierarchy between designated and non-designated countryside. This is further reinforced by the *Planning Practice Guidance* (its section 'Natural Environment') which puts more emphasis on protected landscapes such as National Parks and Areas of Outstanding Natural Beauty (AONBs).

Planning Policy Guidance

6.2.61 The *Planning Practice Guidance* (PPG) provides further advice in relation to developments. Section Design refers to the local character in townscape and landscape **"...reinforcing locally distinctive patterns of development, local**

man-made and natural heritage and culture." It also refers to landscape features such as landform but also views in and out. Section 'Natural Environment' also refers to landscape elements and landscape character putting more emphasis on protected trees and landscapes such as National Parks and Areas of Outstanding Natural Beauty (AONBs).

6.2.62 The *PPG* also states (Paragraph 013, reference ID: 5-013-20150327, revision date: 27 03 2015), similarly to the *Draft EN-3*, that:

> **"The deployment of large-scale solar farms can have a negative impact on the rural environment, particularly in undulating landscapes. However, the visual impact of a well-planned and well-screened solar farm can be properly addressed within the landscape if planned sensitively. (…) However, in the case of ground-mounted solar panels it should be noted that with effective screening and appropriate land topography the area of a zone of visual influence could be zero."**

Local plan policies

6.2.63 The Uttlesford Local Plan was adopted in January 2005 and, along with the Polices Map, Supplementary Planning Documents, and other planning guidance forms part of the statutory development plan.

6.2.64 The Local Plan sets out the following key policies pertinent to the Proposed Development, in so far as the landscape and visual issues and iterative design are concerned:

- Policy S7 – The Countryside.
- Policy GEN1 – Access.
- Policy GEN2 – Design.
- Policy GEN7 – Nature Conservation.
- Policy ENV7 – The Protection of the Natural Environment – Designated Sites.
- Policy ENV8 – Other Landscape Elements of Importance for Nature Conservation.
- Policy ENV15 – Renewable Energy.

6.2.65 The above listed polices have been reviewed to inform the scope of work, iterative design process, and assessment of the Proposed Development.

Scoping Criteria

6.2.66 The scope of work for the LVIA submission August 2022 was devised through consultation with the Council and statutory consultees during the determination period. The Proposed Development was not subject to Scoping as, at the time, it was deemed to be a non-EIA development.

6.2.67 Following a number of design changes, the application was resubmitted directly to the Planning Inspectorate under Section 62a. The Planning Inspectorate have subsequently issued a separate screening opinion stating that the Proposed Development is an EIA development and that an Environmental Statement will be required due to the potential cumulative effects.

6.2.68 In accordance with best practice, the assessment considers the following potential effects:

- Construction Phase – landscape elements within the Application Site; effects on landscape character of the study area; and effects on visual receptors associated with the study area.
- Operational Phase – landscape elements within the Application Site; effects on landscape character of the study area; effects on visual receptors associated with the study area.
- Decommissioning Phase.

Limitations to the Assessment

6.2.69 In undertaking the landscape and visual assessment in relation to the Proposed Development, there are limitations and constraints affecting the outputs from this work. These include:

- Photography for the selected viewpoints was taken from publicly accessible places and not private land.
- The baseline assessment has been based on information readily available at the time of undertaking the assessment.
- The Screened Zone of Theoretical Visibility plans (SZTVs) have been used to understand the extent of potential visibility to identify receptors. The SZTVs do not demonstrate absolute visibility and are therefore refined through field work with the assessed potential visibility of the Proposed Development.
- During site visits, weather conditions, the time of day, and seasonal factors have influenced the visual assessment and photographic record of the Application Site and its surroundings.
- Baseline views were taken in January, March, and June 2021 and therefore represent a variety of views, with some of the broadleaved structural vegetation evident and providing a considerable amount of screening, whilst others are typical of the so called 'winter views'. This is considered appropriate and provides a balanced view with regard to the inter-visibility across the local landscape.
- Access to assess the predicted visual effects from private individual properties outside the Application Site has not been gained. A separate Residential Visual Amenity Assessment has been prepared for the three closest dwellings that gain the least restricted views of the Proposed Development (see **Appendix 6.6**).
- The assessment is based on application drawings that form part of this ES, and on the assumption that the Proposed Development is delivered in line with these drawings and associated timescales.
- All effects are assumed to be temporary unless otherwise stated.

6.2.70 With regard to the mitigation planting, the assumed vegetative growth is taken as 0.5m per year.

6.3 BASELINE CONDITIONS

6.3.1 This section identifies and describes the existing landscape features, and landscape and visual resource found within and around the Application Site. This study helps to gain an understanding of what makes the landscape distinctive, what its important components or characteristics are, and how it is changing prior to the introduction of the Proposed Development. The baseline study is instrumental in the identification of the landscape receptors and visual receptors/views to be assessed. This chapter should be read in conjunction with the site description and context as set out in **Chapter 3** of the ES.

Description of the Site and its Context

6.3.2 The Application Site is located on agricultural land located between Stocking Pelham to the north west, Berden to the north, and Manuden to the south east, as shown on **Figure 6.1**. Stocking Pelham lies to the north west, approximately 1km away, and is separated from the Application Site by belts of trees and blocks of vegetation associated with the existing Stocking Pelham Substation. Berden is located to the north, less than 400m to the perceived southern settlement edge (dwellings along the southern end of The Street). Small blocks of woodland and strong boundary vegetation associated with The Crump and Blaking's Lane, provide strong physical and visual barriers. With regard to Manuden, the village lies to the south east, some 1.2km distance from the nearest area of solar panels (excluding the access track). The variations in levels and built form in Maggot's End prevent any inter-visibility. Isolated dwellings and farmsteads are dispersed across the local landscape.

6.3.3 Maggots End Road is the closest public highway and sits to the south of the Application Site. The nearest group of dwellings is located in the hamlet of Brick House End and in Battles Hall in Maggot's End to the south east of the Application Site. Other properties in Maggot's End are located along Maggot's End Road, which connects Manuden to the south east with East End to the west, and then indirectly with Stocking Pelham to the north. Blaking's Lane forms, in part, the Application Site's northern edge and coincides with Public Right of Way (PRoW) Public Footpath 5-12. A number of other PRoWs cross the Application Site or pass in very close proximity toi it, linking Battle's Hall and Maggot's End Road with Brick House End.

6.3.4 Battle's Hall is a Grade II Listed building with the associated Moated Site at Battle's Manor designated a Scheduled Monument. Brick House and Rose Garth, both located in Brick House End are designated Grade II listed buildings. The neighbouring properties to the north, The Crump and the associated former barn are designated as Grade II listed buildings. The adjacent ringwork The Crump is a Scheduled Monument – refer to Pegasus' Heritage Statement for details.

6.3.5 Broadly speaking, the Application Site is enclosed to the north by the vegetation around Park Green and Blaking's Lane, Battle's Wood to the east, boundary hedgerows and hedgerow trees to the south, and Pump Spring woodland, which compartmentalise the Application Site and visually separates its western Development Zone 5. The Pelham Spring Electricity Substation is located to the west and the associated tree vegetation provides screening to the west. The Application Site and its immediate surroundings are influenced by the existing large scale energy infrastructure, as acknowledged by the Council's landscape officer and stated in the Council's pre-application advice: **"It was also recognised by the landscape officer that the existing electrical infrastructure adjacent to the site does weigh in favour of the proposed development at this location compared to other locations in the district."**

Description of the Proposals

6.3.6 The Proposed Development would be located within a number of adjacent fields, two of which are laid to pasture – refer to Phase 1 Habitat Survey prepared by Clarkson & Woods Ecological Consultants. The Proposed Development, broadly speaking, can be divided into discrete areas which reflect the compartmentalised character of the Application Site. The eastern part is largely located between The Crump, Brick House End, and Battle's Hall: Development Zones 2, 3, and 4. The central part associated with the Development Zones 1 and 6 is enclosed by Pump Spring wood. The western part, located between Pump Spring woodland and the Pelham Spring Electricity Substation, comprises the Development Zone 5.

6.3.7 The construction access would be from Manuden Road to the east. It would skirt the northern edge of Maggot's End and would lead towards Battle's Hall and Battle's

Hall Barns, passing the properties in close proximity. As the track enters the main developable area, it would fall within a large scale arable field between Battle's Wood and Battle's Hall. The construction access would avoid the existing PRoWs. The proposed internal access tracks would follow the existing field boundaries and would utilise the existing gaps in vegetation and/or existing field access points, where possible.

6.3.8 It is anticipated that the construction stage of the Proposed Development would take approximately 20 weeks (5 months) to complete, and would exclude Sundays.

6.3.9 The temporary compound will likely include:

- Temporary portable buildings to be used for offices, welfare and toilet facilities.
- Containerised storage areas.
- Parking for construction vehicles and workers vehicles.
- Temporary hardstanding.
- Temporary gated compound.
- Wheel washing facilities.

6.3.10 The proposal would include a series of solar panels, at max. 3m in height enclosed by deer fencing of 2.0m in height with CCTV cameras located along the perimeter. The panels would be fixed, facing south, and located in rows to represent a coherent and relatively simple layout. The layout of the Proposed Development has been informed by a number of site visits and preliminary LVIA work. Therefore, the proposed layout represents the best fit alternative, responding to the on-site constraints, utilising the land within the local area that is already affected by large scale energy infrastructure, whilst taking into account the technical and commercial sensitivities. Inverters and battery storage units would be located along the internal access tracks, and amongst the panels. Where possible, these elements have been positioned against boundary vegetation to reduce their visibility.

6.3.11 A series of technical drawings explain the layout and appearance of the proposed solar panels and associated infrastructure, and this LVIA should be read in conjunction with these plans. In summary, the following elements of built form are being proposed:

- Solar panels of up to 3m in height, on metal frames and pile driven into the ground.
- Approximately 23 no. of containerised inverter units: 12.2m long x 2.5m deep x 2.9m high.
- Approximately 36 no. of containerised battery storage units in containers: 12.2m long x 2.6m deep x 3m high (4m high including supporting concrete pads and air ducts, located on top of the containers).
- CCTV on top of approx. 2.5m high wooden post.
- Perimeter fencing, deer/stock proof style, 2.0m high.
- Access track of approx. 3.5m width with 40mm to dust crushed stone as the top finishing layer.
- Palisade fencing of standard design at 2.4m high, with the colour envisaged to be dark and recessive. The precise RAL colour can be secured via condition.
- DNO access track, 4m minimum width with asphalt or macadam top finishing surface.
- Substation compound to include transformers, 132kV DNO substation and Customer substation/switchgear, and meter equipment.
- Meter kiosk at the on-site substation: 2.1m long x 0.825m deep x 1.8m high.

- Customer substation building: 10m wide x 4m deep x 3m high.
- DNO substation building: 5.4m long x 8m deep x 4.1m high.

6.3.12 The proposed DNO 132kV substation and 132/33kV transformer compound would include some limited vertical elements up to 6m in height. For that reason it would be located in a discreet parcel of land, in the southern part of the Application Site, enclosed by Pump Spring woodland to the south and hedgerow/hedgerow trees to the west, north and east. The overall footprint of the substation area would be approx. 57.7m x 28.1m with the compound enclosed by palisade fencing. The connection between the panels and the substation would be underground. A single internal access track, forming the DNO access route, would connect the substation with Maggot's End Road to the east, and would continue west to provide access to the Developmenty Zone 5.

6.3.13 The operational access will be from Maggot's End Road via an existing farm access track extending to the south east of the Application Site, and adjacent to the north of Battles Hall. It partially coincides with the proposed temporary construction access.

Colours and materials

6.3.14 The Proposed Development would use a limited palette of both colours and materials that would be typically self-finishing. The photovoltaic panels are designed to absorb the light rather than reflect it and with their dark colour would appear quite recessive in the landscape. The inverter cabinets and other ancillary infrastructure would be proprietary elements with colours agreed upon with the Council. This **Chapter 6** is based on the assumptions that the colour and finishes are likely to be recessive and dark, to reduce their visibility. The Application Site would be secured by deer fencing of standard design, similar in style to stock proof fencing used for agricultural purposes, with large aperture galvanised mesh stretched on wire and supported by wooded posts of approx. 2.0m in height. Where access gates are necessary these are envisaged as double leaf timber gate with height and style to match the rest of the fencing.

Mitigation Measures and Enhancements

6.3.15 The proposed layout incorporates a number of built in mitigation measures such as offset from boundary vegetation, reduction in the extent of the Application Site: offset from Maggot's End Road and Battle's Hall, and refinements to the layout to provide visual separation from the adjacent PRoWs. These refinements, part of the iterative design process, respond to the on-site analysis and preliminary LVIA work carried out in winter 2020 and spring/summer of 2021.

6.3.16 The primary objective of the proposed planting was to strengthen the existing landscape framework associated with the Application Site whilst visually enclosing it to reduce the inter-visibility with close to very close visual receptors.

6.3.17 During the on-site survey, it was noted that there are a number of overgrown hedgerows with hedgerow trees around the Application Site that resemble tree lines. In addition, some of the better maintained hedgerows along public highways and field boundaries are also reasonably high. It is therefore appropriate, and in keeping with the existing landscape character, for the retained and proposed hedgerows (once established) to be maintained at approx. 3m height.

6.3.18 By offsetting the proposed panels from the boundaries, the Proposed Development avoids any direct effect upon the Root Protection Areas associated with the existing boundary vegetation, and in particular the heavily vegetated northern and north

eastern boundary and adjacent woodlands. The relatively wide buffers also provide a generous maintenance zone and help avoid any health and safety risks which could result in future tree works.

6.3.19 With regards to Public Footpaths 4-39 and 34-39, which cross the Application Site, these PRoWs would be bordered by new hedgerows and hedgerow trees. The physical alignment of these Public Footpaths would be retained. The new 'green corridor' would be relatively wide, approx. 10m wide, to avoid creating a tunnel effect. Such design device is becoming a standard approach across the country with various local planning authorities accepting such design solutions as appropriate and acceptable. With regard to Public Bridleway 5-57, which skirts the Development Zone 5, it would be segregated from the Proposed Development by a new c.550m hedgerow. The northern edge of the Development Zone 5 would be also bordered by a new c.590m hedgerow and hedgerow trees, to address the issue of inter-visibility with the nearby Public Footpath 5-52 located to the north.

6.3.20 As part of the iterative design process carried out in 2021, the two large scale arable fields located along the northern side of Maggot's End Road and west of Battle's Hall, have been excluded from development. This change addresses the identified issue around visual amenity of road users, PRoW users to the south including Public Footpath 39-7, and residents of Battle's Hall and Battle's Hall Barns. The visual amenity of users associated with Public Footpaths 5-15 and 5-14 has also been considered with the fields located immediately to the south east of Brick House End removed from development.

6.3.21 Following the discussion and pre-application advice from the Council's heritage and landscape officers, in May and June 2022, the extent of solar modules in the eastern part of the Proposed Development was reduced, to minimise the adverse effects on the local landscape character and visual amenity associated with the nearby PRoWs. The changes to the layout included:

- the omission of solar modules in the northern most elevated part of the eastern parcel, that abuts Blaking's Lane; and
- removal of two areas in the southern part of the eastern parcel, that are the closest to PRoWs 39-4 and 5-14 leading between Brick House End and Battles Hall.

Additional Mitigation

6.3.22 As well as retaining all trees and hedgerows within, and around the periphery of the Application Site, landscape enhancements as set out in **Table 6.3** and shown at **Figure 6.2 Landscape Strategy Plan** are proposed to strengthen the landscape structure whilst reducing any visual effects arising from the Proposed Development.

Table 6.3: Mitigation

Ref	Measure to avoid, reduce or manage any adverse effects and/or to deliver beneficial effects	How the measure would be secured	
		By Design	By Condition
1	Protection and retention of existing mature trees and hedgerows within the Application Site and along its boundaries during construction in accordance with CEMP.	X	X

Ref	Measure to avoid, reduce or manage any adverse effects and/or to deliver beneficial effects	How the measure would be secured	
		By Design	By Condition
2	Protection and retention of existing mature trees and hedgerows within the Application Site and along its boundaries during operation in accordance with LEMP.	X	X
3	Sensitive location of the substation to screen and anchor it within the landscape.	X	
4	Establish and maintain an approximately 5m deep woodland planting along Blaking's Lane to enhance screening during construction and operation in accordance with LEMP and CEMP.	X	X
5	Establish and maintain a small clump of native woodland planting to the west of Development Zone 2 to enhance screening during construction and operation in accordance with LEMP and CEMP.	X	X
6	Where necessary, repair external hedgerows including additional tree planting along the perimeter of the Proposed Development including the vegetation along PRoWs and Blaking's Lane. Manage hedgerow to a height of approximately 3m height during operation in accordance with LEMP (see **Appendix 6.12**)	X	X
7	Introduce small scale and large scale / woodland scale legacy trees along the perimeter of the Proposed Development, to strengthen the landscape framework, connect habitats, and increase the screening, as illustrated on the Landscape Strategy Plan **Figure 6.2** and in accordance with LEMP.	X	X
8	Retained areas of grassland meadow and skylark conservation area within the fields to be positively managed for nature conservation where possible through low level grazing or mowing) during operation in accordance with LEMP.	X	X

Enhancements

6.3.23 The Application Site and surrounding landscape displays a high level of mature tree and hedgerow cover which limits the extent of the Application Site that is visible from any representative viewpoint. Therefore, it is not considered on landscape and visual grounds to be necessary or appropriate for additional tree or hedgerow planting to be incorporated into the Proposed Development over and above that identified for mitigation.

Baseline Landscape Receptors

Landscape Designations

6.3.24 The Proposed Development is not located within any national statutory protected landscape designations. It does not lie within any regional or local non-statutory landscape designations, either.

Natural England, South Suffolk and North Essex Clayland (NCA 86)

6.3.25 Natural England has identified 159 geographical areas of similar landscape character known as National Character Areas (NCAs). This mapping, sometimes described as 'The Character of England Map', provides a description of landscape character at the national scale. It is considered that whilst the NCAs provide a national spatial framework, the scale of the mapping and information is of limited use at the local scale. The Application Site is located within the South Suffolk and North Essex Clayland (NCA 86), as identified by Natural England. The key characteristics include:

- **"An undulating chalky boulder clay plateau is dissected by numerous river valleys, giving a topography of gentle slopes in the lower, wider valleys and steeper slopes in the narrower upper parts.**

- **Fragments of chalk give many of the soils a calcareous character, which also influences the character of the semi-natural vegetation cover.**

- **South-east-flowing streams and rivers drain the clay plateau. Watercourses wind slowly across flood plains, supporting wet, fen-type habitats; grazing marsh; and blocks of cricket-bat willows, poplars and old willow pollards. Navigation locks are present on some rivers.**

- **Lowland wood pasture and ancient woodlands support the dormouse and a rich diversity of flowering plants on the clay plateau. Large, often ancient hedgerows link woods and copses, forming wooded skylines.**

- **The agricultural landscape is predominantly arable with a wooded appearance. There is some pasture on the valley floors. Field patterns are irregular despite rationalisation, with much ancient countryside surviving. Field margins support corn bunting, cornflower and brown hare.**

- **Roman sites, medieval monasteries and castles and ancient woodlands contribute to a rich archaeology. Impressive churches, large barns, substantial country house estates and Second World War airfields dot the landscape, forming historical resources.**

- **There is a dispersed settlement pattern of scattered farmsteads, parishes and small settlements around 'tyes' (commons) or strip greens and isolated hamlets. The NCA features a concentration of isolated moated farmsteads and numerous well-preserved medieval towns and large villages.**

- **Larger 20th-century development has taken place to the south and east around Chelmsford, Ipswich and the new towns of Harlow and Stevenage.**

- **Traditional timber-frame, often elaborate buildings with exposed timbers, colour-washed render, pargeting and steeply pitched roofs with pegtiles or long straw thatch. Sometimes they have been**

refronted with Georgian red brick or Victorian cream-coloured bricks ('Suffolk whites'). Clay lump is often used in cottages and farm buildings.

- **Winding, narrow and sometimes sunken lanes are bounded by deep ditches, wide verges and strong hedgerows. Transport infrastructure includes the A14, A12, M11 and Stansted Airport.**

- **A strong network of public rights of way provides access to the area's archetypal lowland English countryside."**

6.3.26 The 'Summary' section of the published assessment describes the NCA86 as: "It is an ancient landscape of wooded arable countryside with a distinct sense of enclosure. The overall character is of a gently undulating, chalky boulder clay plateau, the undulations being caused by the numerous small-scale river valleys that dissect the plateau. There is a complex network of old species-rich hedgerows, ancient woods and parklands, and meadows with streams and rivers that flow eastwards. Traditional irregular field patterns are still discernible over much of the area, despite field enlargements in the second half of the 20th century."

County Level

6.3.27 The landscape around the Application Site is described and analysed in the Essex Landscape Character Assessment, published in 2003 by Essex County Council. According to the published Assessment, the Application Site falls within the southern end of the Chalk Upland Landscapes Landscape Character Type (LCT) A, and its North West Essex Chalk Farmland (A1) Landscape Character Area (LCA).

6.3.28 According to the published assessment (para 4.2.2): "Typical hedgerow species are Hawthorn and Ash, with occasional Blackthorn, Elderberry, Dogwood, Hazel, Beech, Field Maple, Oak, Dog rose, Spindle, Wayfaring tree."

6.3.29 The 'Key Characteristics' of the host North West Essex Chalk Farmland A1 LCA are:

- **"Strongly rolling landform of broad roundbacked ridges.**
- **Large scale arable farmland.**
- **Distinctive elevated, expansive and generally open character.**
- **Panoramic views from ridgetops.**
- **Dispersed blocks of woodland and isolated copses.**
- **Sparse settlement pattern, small linear villages alongside stream courses, and hamlets with greens.**
- **Mostly tranquil and remote character."**

6.3.30 With regards to the 'Landscape Condition' the published assessment notes:

- **"…relatively small number of farmland hedgerows are in poor condition due to lack of management, and tend to be fragmented. Thicker, better managed hedgerows are locally associated with settlements.**
- **Woodlands are in moderate condition.(…)**
- **Streamside vegetation is a strong feature of some valley bottoms, but in others it has been lost or eroded by intensive farming practices."**

6.3.31 In terms of 'Past, Present and Future Trends for Change' pylons in the southern part of the LCA and the intensification of agriculture have been identified in the Essex Landscape Character Assessment.

Uttlesford District Council Landscape Character Assessment

6.3.32 At the district level, Uttlesford District Council published its own landscape character assessment titled Braintree, Brentwood, Chelmsford, Maldon and Uttlesford Landscape Character Assessments. According to the published assessment, the Application Site is located within H4 'Berden and Farnham Chalk Upland' Landscape Character Area (LCA), part of Landscape Character Type (LCT) H 'Chalk Upland Landscapes'.

6.3.33 The 'Key Characteristics' of the LCA H4 'Berden and Farnham Chalk Upland' include:

- **"Broad undulating upland slopes that flatten at the highest elevations.**
- **Distinctly elevated, open, arable fields.**
- **Field patterns mainly regular, with large farms and becoming smaller and more organic in shape in the valleys and around villages.**
- **Scrubby, often fragmented hedgerows or scattered tree groups, with distant blocks of trees framing views, particularly towards the middle and southern part of the area, where it is dissected by Bourn Brook.**
- **A complex array of pylons leading to electricity substation near Berden dominates views in the high plateau.**
- **Few roads; sense of emptiness and openness."**

6.3.34 Its Visual Characteristics have been described as:

- **"Dramatic views of steeply sloping fields and small church above Bourne Brook.**
- **Highly visible double row of pylons and electricity generating station outside Berden."**

6.3.35 The published assessment goes on to state in 'Sensitivities to Change': "Sensitive key characteristics and landscape elements within this character area include small patches of woodland (some of which are ancient) and several springs, which are sensitive to changes in land management. The open nature of the skyline on the ridges of this upland landscape is visually sensitive to new development, which may be visible within panoramic views across the plateau. The overall sense of tranquillity within the character area is also sensitive to change and potential new development. There is a sense of historic integrity or continuity, resulting from a widely dispersed historic settlement pattern and enclosed meadows within the valley of the River Stort. Overall, this character area has moderate to-high sensitivity to change." It is important to note that this is an inherent sensitivity of the LCA H4, and is not necessarily representative of its sensitivity to solar energy developments. Furthermore, the valley of the River Stort is not located within or adjacent to the Application Site, and is identified as a separate LCA. Therefore, the above quoted reference to "…enclosed meadows within the valley of the River Stort" is not applicable to the host LCA H4 'Berden and Farnham Chalk Upland'.

Character of the site, its environs, and landscape sensitivity

6.3.36 It is accepted that the character of the local landscape may vary where the change from one LCA to another occurs. Inevitably there may be some localised variations and a transitional zone where characteristics of one LCA are evident in the neighbouring areas and vice versa. The landscape character assessment, presented in the following paragraphs provides further information and evidence, where necessary.

6.3.37 The following paragraphs analyse the Application Site's landscape character, based on the on-site assessments, and verify it against the published reports mentioned in the previous paragraphs. By doing so this LVIA aims to identify the landscape value and landscape susceptibility to solar energy developments.

Surrounding landscape

6.3.38 The landscape around the Application Site is undulating with frequent tree cover in the form of tree belts, blocks of woodland, and well vegetated tracks or field boundaries. Pump Spring woodland is adjacent to the south western part of the Application Site with Battle's Wood enclosing it to the east. Further to the north and west, there are a number of small blocks of vegetation around Little London, Berden, and the substation at Stocking Pelham. Blocks of woodland are also present in the landscape to the south west but changes in the topography often restrict or foreshorten views, and there is very limited visual connectivity with the surrounding wider environs (refer to **Figure 6.1** Site Location Plan).

6.3.39 Stocking Pelham and Berden are the closest settlements of notable size, and are located to the north west and north respectively. Both settlements are separated from the Application Site by the undulating landform and strong landscape framework that marks the northern edge of the Application Site. In short, there is a lack of any inter-visibility between the Application Site and both settlements. Maggot's End is located to the south east with the associated properties visible as one travels towards Manuden. Manuden, however, is associated with the valley of the River Stort and is separated from the Application Site by areas of higher ground. Brick House End is a small strongly enclosed hamlet, located between the western and northern/central part of the Application Site, and connects with Maggot's End via a number of Public Footpaths. Despite the proximity, views from within the hamlet are often screened.

Landscape Value

6.3.40 The landscape is not subject to any statutory or non-statuary landscape designations. The Application Site represents a typical example of a managed agricultural landscape. The landscape is therefore not of high value landscape in the context of the National Planning Policy Framework. The condition of the landscape appears to be good, and this is confirmed in the published landscape character assessment.

6.3.41 In terms of its scenic qualities, the Application Site is a pleasant and attractive, but unremarkable area that is generally seen in isolation and visually separate from the wider landscape. Views from the eastern study area include some of the properties in Maggot's End, but the Application Site is almost imperceptible. In short, the Application Site and its immediate environs are not seen in the context of the River Stort valley landscape, located further east.

6.3.42 The undulating topography around the Application Site offers locally elevated and medium range views; and these are characterised by a combination of wooded horizons with frequent tree cover, with the landform often foreshortening the views and reducing the appreciation of the local field pattern.

6.3.43 The Application Site and adjacent fields do not appear to contain any landscape features that would be rare or unique. Mature trees are present along the field boundaries, but this is not untypical with some of the tree vegetation in the locale being covered by Tree Preservation Orders. The Application Site and immediately adjacent fields are not covered by any landscape conservation designations that would relate to ecology or biodiversity. The Application Site is not adjacent to any

Areas of Open Access Land, commons, Country Parks or other public amenity space, although a number of PRoWs provide access around and across the Application Site. Noise and movement are limited.

6.3.44 Being undesignated farmland, the value of the local landscape has been assessed in line with the GLVIA3 and the Landscape Institute's Technical Guidance Note 02/21: Assessing landscape value outside national designations (TGN 02/21). This assessment is set out in **Table 6.4** below:

Table 6.4: Assessment of Landscape Value (after GLVIA3 Box 5.1 and TGN 02/21)

Natural Heritage	The site comprises actively managed pastoral and arable farmland and is not covered by any statutory or non-statutory nature conservation designations. The pastoral and arable fields, enclosed by hedgerows and trees are characteristic of the local landscape. Tree vegetation is present in the form of small blocks of woodland and hedgerow trees, Localised strong hedgerows and trees within the site and around. None of the trees within the site's boundaries are protected by any Tree Preservation Order (TPO) or are part of a designed or designated landscape. Hedgerows and hedgerow trees/trees represent a traditional but typical field boundary treatment in this area. No clearly identified landscape-related geological interests.
Cultural Heritage	No specific cultural or heritage connections, beyond the ordinary, managed agricultural landscape.
Landscape Condition	The local landscape is considered to be in generally good condition; albeit altered by the negative influence of the Stocking Pelham Substation and large scale pylons.
Associations	No well-known specific associations with notable people, events or the arts.
Distinctiveness	The local landscape is not noted for being distinctive, and the site is not considered to be atypical of the local area.
Recreational	The local PRoW network is generally good, with routes both crossing and running adjacent to the site. There are no long-distance promoted paths or cycle routes in the immediate vicinity.
Perceptual - Scenic	The site and its environs are of moderate scenic quality being a pleasant working countryside. The nearby Stocking Pelham Substation and large scale pylons do exert a locally negative influence.

Perceptual - Wildness and Tranquillity	The local landscape is settled, quiet and managed for agriculture. There is a limited sense of remoteness and a moderate sense of relative tranquillity.
Functional	The local landscape does not provide a particular function in relation to nearby settlements and does not provide the setting for any statutory/national or non-statutory/ local landscape designations.

6.3.45 On the basis of this analysis, the site and its environs are considered to be of medium value; not exhibiting any special functional or visual relationship with any statutory landscape designations or exhibiting demonstrable physical attributes that would elevate it from the ordinary countryside.

Landscape Susceptibility

6.3.46 The Application Site comprises a number of large scale arable fields and is best described as a well enclosed and gently undulating area where views terminate on hedgerows or woodlands with views south curtailed by topography (refer to **Figure 6.3** Topography and Visual Receptors Plan). The Application Site's western, northern, and eastern perimeter coincides with locally higher ground, effectively placing the Application Site in a natural fold in the landscape. This contrast with the North West Essex Chalk Farmland (A1) LCA on the county level, which states: **"The North West Essex Chalk Farmland is a strongly rolling landscape of broad ridges, separated by valleys with small narrow streams. Large to very large arable fields are defined by broken hedgelines, drainage ditches or grassy tracks. Relatively few hedgerows, and widely spaced blocks of woodland and copses result in a generally open character. Sweeping views across the undulating arable farmland are punctuated by dispersed woods and copses, in the south and west partly interrupted by power lines. Panoramic views occur from the higher ground of the broad ridgetops."** Although panoramic views do exist in the wider environs, with views gained from localised ridges, these are not present within the Application Site. The higher ground to the south east of the Application Site and south of Maggot's End gently rises to approx. 105m Above Ordnance Datum (AOD) and restricts views. Indeed, views from this higher ground are panoramic but are not necessarily long range, being restricted by hedgerows, lines of trees and woodlands, and **"...broad roundbacked ridges".** In this regard, the landscape character assessment published at the district level is perhaps more accurate stating: **"Tree blocks provide a certain sense of enclosure in the centre of the area (...) The changing undulations of the landform characterize this area, and the sense of moving up and down, in and out from closed to open, expansive views."**

6.3.47 The landscape appears settled and quiet, but is not remote. Its relative level of tranquillity is reduced by the strong linear features of the large scale electricity pylons that dissect this area, and views of the nearby large scale electricity substation in Stocking Pelham. Therefore the **"Mostly tranquil and remote character"** described in the Essex Landscape Character Assessment (2003) is not an accurate description of the Application Site and its environs. The Braintree, Brentwood, Chelmsford, Maldon And Uttlesford Landscape Character Assessments (2006) is more accurate stating: **"Highly visible double row of pylons and electricity generating station outside Berden"** as one of the Visual Characteristics and Key Characteristics **"A complex array of pylons leading to electricity substation near Berden dominates views in the high plateau"** of the host LCA H4 'Berden and Farnham Chalk Upland'.

6.3.48 The landscape condition varies, with the aforementioned substation and electricity pylons affecting the predominantly agricultural landscape introducing complexity and influencing the landscape pattern. This is acknowledged by the Council's landscape officer and stated in the Council's pre-application advice**: "It was also recognised by the landscape officer that the existing electrical infrastructure adjacent to the site does weigh in favour of the proposed development at this location compared to other locations in the district."** Field enclosures include low and heavily managed hedgerows, but equally, there are examples of overgrown hedgerows with standard trees: **"The relatively small number of farmland hedgerows are in poor condition due to lack of management, and tend to be fragmented. Thicker, better managed hedgerows are locally associated with settlements".** Lack of boundary vegetation is also evident along certain sectiosn of the Application Site and along the nearby Maggot's End Road. With regards to the landscape pattern and scale the nearby woodlands are modest in scale but provide a strong sense of visual enclosure and physical separation between the Application Site and nearby visual receptors, and indeed the wider landscape. On that basis, the susceptibility of the local landscape to this type of development is assessed as low.

Landscape sensitivity

6.3.49 Based on the above analysis it transpires that the local landscape is of medium sensitivity to solar energy developments.

Visual Baseline Survey Information

6.3.50 The effect on visual amenity considers the changes in views arising from the proposals in relation to visual receptors including the surrounding settlements, residential properties, highways, Public Rights of Way (PRoW) together with the effects on representative viewpoints. Visual amenity is defined in GLVIA3 as the:

> **"Overall pleasantness of the views people enjoy of their surroundings, which provides an attractive visual setting or backdrop for the enjoyment of activities of the people living, working, recreating, visiting or travelling through an area**."(GLVIA 3rd Edition, Glossary, Page 158)

6.3.51 A visual appraisal has been conducted to determine the relationship of the Application Site with its surroundings and its approximate extent of visibility within the wider landscape from publicly accessible locations. The landscape and visual surveys were undertaken in January, March, and late June 2021. Site photographs were taken to record the character and nature of the views, and the existing visibility of the Application Site. Where relevant the seasonal changes to the vegetative cover have been considered as part of the visual assessment.

Visual Receptors

6.3.52 According to Natural England's MAGIC on-line mapping, there are no areas of Open Access Land, commons, country parks or other recreational resources such as National Trails or SUSTRANS cycle routes that would be adjacent to the Application Site. The majority of such receptors are located at some distance and are separated by undulating topography and vegetation with views generally restricted. Park Green Registered Common Land is located to the north west, beyond Brick House End, and is the closest such receptor (refer to **Figure 6.3** Topography and Visual Receptors Plan). Harcamlow Way is the only long distance route within the local area and traverses the landscape in the eastern and southern parts of the study area. At its closest point, it lies approx. 1.3km away to the south east in Manuden,

with the majority of this route located over 2km away. SUSTRANS Route No. 11 crosses the eastern study area and follows the upper valley slopes of the River Stort, and leads to Manuden. This cycle route continues across the valley and leads north east along Pinchpools Road / Brixton Lane towards Rickling Green. There are no historic parks and gardens accessible to the public that could be regarded as visual receptors.

General Visibility from the Site and SZTV – Preliminary review of potential visual effects

6.3.53 In order to understand the potential visibility of the Proposed Development, a Screened Zone of Theoretical Visibility (ZTV) plan has been prepared and included as **Figure 6.4**. This provides an indication of the extent and pattern of visibility assuming a height of 15m for woodland and 8m for buildings. The SZTV also includes the National Tree Map around the Application Site, which accounts for smaller groups of trees and taller hedgerows. It does not, however, account for individual hedgerows, small groups of trees, minor changes in landform in the wider landscape, or seasonal variations in leaf coverage. The SZTV model is therefore a theoretical 'worst case scenario' based upon a maximum solar panel height of 3m above ground level. The actual extent and pattern of visibility would be considerably lower than that indicated on the SZTV (**Figure 6.4**). The below paragraphs provide a review of the SZTV verified against on-site survey, and aim to discount those receptors that are not relevant or unlikely to be affected due to distance and substantially filtered views in winter months. The selected viewpoints, referred in the below paragraphs, illustrate the point and help justify this approach (**Figure 6.5** Baseline Panoramas and **Figure 6.6** Photomontages).

6.3.54 With regard to the western part of the study area the landform gently rises from around Pump Spring wood, reaching approx. 117m AOD along Maggots' End Road, 118m AOD at East End, and 120m AOD near the Stocking Pelham Electricity Substation, before sloping west towards the valley of the River Ash, as illustrated by **Figure 6.3** Topography and Visual Receptors Plan. Views from within the Application Site and its immediate context looking west and south west terminate on this broad and slightly elevated landscape, marked by hedgerows, roadside trees, and belts of trees that separate the Application Site from East End. The settlement itself is not visible and the only other features that are identifiable in these views are the Stocking Pelham Electricity Substation and large scale electricity pylons. The Substation, however, is enclosed by a strong landscape framework and only the upper parts of the apparatus are visible. Close range views looking west and north west gained along Public Bridleway 57-5, which skirts the western edge of the Application Site and terminates on this vegetation (**Figure 6.5**, Viewpoints 2 and 3). No other settlements, features or elevated landscapes located further west are visible. Brick House End is also enclosed by a strong landscape framework with dense and mature hedgerows, often overgrown and relatively dense tree belts around the properties. Views of the existing Stocking Pelham Substation can be gained from PRoW 5-15, located to the south of the hamlet, but the settlement of Stocking Pelham and any other properties located to the west or north west are screened. Views from the PRoW 5-15 towards the Application Site are also considerably restricted giving evidence of the vegetative screening around the Application Site. In short, there is a distinctive lack of any inter-visibility between the Application Site and the more distant landscape to the west.

6.3.55 As discussed previously, the northern, north eastern, and eastern perimeter of the eastern parcel of the Application Site is marked by a strong line of vegetation: double hedgerow with hedgerow trees that enclose PRoW 5-12 and coincides with Blaking's Lane. It links physically and visually with Battle's Wood which marks the eastern edge of the Application Site. It is important to note that this vegetation

marks the highest point along the Application Site's northern and eastern perimeter with the landscape beyond falling away from the Application Site. At the same time, the Application Site's topography slopes west and sits lower than its northern and north eastern/ eastern perimeter, being physically and visually contained by this higher ground.

6.3.56 The western end of Blaking's Lane, near the property known as The Crump, links visually with the hedgerow and tree vegetation along the track that leads south towards Brick House End. A relatively narrow gap exists between this vegetation, immediately south of The Crump, allowing views towards the Application Site. As evidenced by the site photography (**Figure 6.5**, Viewpoint 8) views east terminate on the aforementioned vegetation in the middle ground – vegetation along Blaking's Lane and Battle's Wood. Therefore, more distant landscapes, and the north eastern and eastern part of the study area is not visible. Conversely, views from the north western part of the study area would not be gained due to changes in landform which rises to approx. 119m AOD near The Crump and a block of tree vegetation around Park Green (refer to **Figure 6.3** Topography & Visual Receptors Plan), and the aforementioned vegetation around The Crump. In any case, views gained through this narrow gap are substantially filtered by the overgrown hedgerow that marks the north western edge of the Application Site.

6.3.57 On that basis medium to long distance visual receptors located in the south western, western, north western, northern, and north eastern study area are excluded from this assessment. There is a lack of any inter-visibility between the Application Site and these parts of the surrounding landscape, or views would be so constrained and restricted that any change would be inconsequential. Instead, the visual assessment is supported by very close to close range viewpoints, as discussed later in this section of the LVIA.

6.3.58 With regards to views from the east, Battle's Wood and the aforementioned hedgerow along the Application Site's north eastern perimeter sit at approx. 119m AOD with the Application Site sloping west, thus being physically and visually contained by the landform and the woodland. The contour lines read 115m and 110m AOD, and indicate that the land immediately south of Battle's Wood has the ability to restrict views in and out from the Application Site. This has been confirmed on site and illustrated by the SZTV with the nearby Public Footpaths 39-14 and 39-15 (north of Maggot's End) falling outside of the SZTV. Views to the east are considerably foreshortened by the landform in the foreground. The valley of the River Stort is not visible with the more distant landscape to the east almost completely screened. Based on the Topography & Visual Receptors Plan the landscape in the eastern and south eastern study area is of lower elevation, largely between 100m and 110m AOD – thus lower than the elevated Battle's Wood. Views towards the Application Site, therefore, would be screened or considerably restricted by the higher ground around Maggot's End (approx. 110m AOD) and immediately south east of the Application Site, around Mount Pleasant (approx. 105m AOD) (**Figure 6.5**, Viewpoint 16)

6.3.59 In terms of potential views from the southern part of the study area these continue to be screened or restricted by the undulating topography. As illustrated by the SZTV there are patches of theoretical visibility around Mallows Green and further south around Farnham Green. This, however, does not take into account the intervening vegetation. Furthermore, views are restricted by the intervening topography although the variations in levels are relatively limited, reaching approx. 108m AOD at the northern edge of Farnham Green and 103m AOD along Mallows Green Road, near the south western edge of Manuden. Such limited variation in levels prevents receptors from gaining any elevated or unrestricted views towards the Application Site.

6.3.60 Although the SZTV suggests that some views from around Mallows Green Farmhouse and Farnham Green may be theoretically gained, in reality hedgerow and tree vegetation, and changes in landform prevent receptors from gaining any clear views towards the Application Site. Viewpoint 10 has been selected nearby, at approx. 107m AOD, and illustrates views from this road and PRoW 39-11, which leads north. It also illustrates the screening provided by the intervening landform, which separates the Application Site from the southern study area. This slightly elevated ground is located immediately to the south west and south east of the Application Site with a number of viewpoints selected at these locations (Viewpoint 5 and PRoW 39-11; Viewpoint 12 along PRoW 39-8 and Viewpoint 13 along PRoW 39-5). Most importantly this higher ground screens and restricts views from the more distant parts of the landscape in the south western, southern, and south eastern study area (refer to contour lines on **Figure 6.3** Topography & Visual Receptors Plan and **Figure 6.1** Site Location Plan). Based on the above described preliminary review and on-site assessment receptors in the southern study area have been excluded from further assessment.

6.3.61 It also transpires that the majority of visual receptors associated with the study area would not gain any views of the proposals or their views would be inconsequential. In summary, the proposed solar development would be visible from the PRoWs within the Application Site and adjacent to it, sections of the public highway between East End and Maggots End immediately to the south of the Application Site, and PRoWs located on the slightly elevated ground to the south of the road.

6.3.62 Initially, a set of 12 viewpoints had been selected around the Application Site, and generally in close proximity to it, reflecting the theoretical visibility of the Proposed Development and findings of the on-site survey, as explained in the preceding paragraphs. Following the preliminary LVIA feedback and iterative design process in 2021, the extent of the proposed solar modules changed with an additional parcel of land incorporated into the Application Site boundary - the western parcel, i.e., Development Zone 5, to the west of Pump Spring wood and Brick House End. Therefore additional 4 viewpoints were included and assessed to inform the decision makers. The identified receptors are considered to be the most relevant and informative, and can be used as proxy views to determine the visual effects potentially experienced by more distant receptors or those in close proximity and not specifically addressed in this LVIA.

6.3.63 As explained in the preceeding section of this LVIA and above paragraphs, the following visual receptros are considered relevant for the purpose of this **Chapter 6:**

- the PRoWs within and those abutting the Application Site,
- the PRoWs to the south of the Application Site,
- Maggot's End Road and dead end road to Brick House End.

Sensitivity of Receptors

6.3.64 With regards to the sensitivity of visual receptors, this is established by cross referencing the value of views gained and their inherent susceptibility to change brought about by the Proposed Development. In terms of value, the local area is an un-designated agricultural landscape. In terms of their susceptibility, this will vary with users of PRoWs and those exercising their right to access considered to be of high susceptibility. This is on the basis that the surrounding landscape forms a strong component of their visual amenity. The same approach is taken for residential receptors. Overall, the sensitivity of PRoW users is assessed as high. In comparison, road users travel across different landscapes and are influenced by a

variety of views, built form and elements of infrastructure. On that basis, their susceptibility is taken as medium, and their sensitivity is assessed as medium.

6.3.65 Further details on the LVIA methodology are provided in **Appendix 6.1**.

6.4 ASSESSMENT OF LIKELY SIGNIFICANT EFFECTS

6.4.1 The following assessment of likely significant landscape and environmental effects is made with reference to **Chapter 4** of this ES which describes the Proposed Development.

6.4.2 Ground level work would include the construction of permeable access tracks, cabling trenches and shallow drainage swales. During operation, the Application Site would not have any fixed external lighting. All existing, healthy mature trees and established hedgerows within and along the boundaries of the Application Site will be retained, protected, and managed throughout the construction and decommissioning phases and 40-year life of the Proposed Development. Access for construction and maintenance vehicles would be gained from Manuden Road to the east.

6.4.3 Construction of the Proposed Development would take approximately 5 months (20 weeks) to complete.

6.4.4 The solar farm features including the solar arrays, substation/components, fencing and access tracks would be in place for the 40-year operational life of the Proposed Development; any effects considered within the landscape and visual assessment would be temporary but long-term and reversible upon the decommissioning.

6.4.5 Decommissioning would be a reverse of the construction process.

6.4.6 **Table 6.5**, included at the end of this report, outlines the potential significant landscape and visual effects based upon the results of baseline surveys and data collection and the information available regarding the Proposed Development.

Construction Phase

6.4.7 A description of the construction programme and construction activities is provided in **Chapter 4** of this ES. Construction activities with the potential to affect the landscape and visual amenity include site clearance and preparation including the construction of access tracks, movement of vehicles, the tall plant used for driving the supports for the solar arrays/tables, potentially up to 2no of cranes used for lifting the sub stations/components into position and high-level activities when connecting to the existing pylons.

6.4.8 Construction activity potentially evident on the Application Site would include:

- Temporary construction compound, site office, cabins, and lighting.
- Removal of non-retained crop (if present at the time) and grassland, and protective fencing to retained structural vegetation: trees and hedgerows.
- Excavation, groundworks, and cable runs (including access tracks).
- Temporary storage of materials, vehicles, and machinery.
- Vehicle and plant movements.
- Construction of solar arrays, substation etc.
- Reinstatement of areas following completion of the construction phase.

6.4.9 It is proposed that the temporary construction compound and materials storage/laydown areas would be sited on the southern edge of the Development Zone 4, near Battle's Wood.

Landscape Elements within the Application Site

6.4.10 This part of the LVIA analyses the effect of the Proposed Development on those landscape elements and features including topography, vegetation, and other features that help characterise the Application Site, and provide the structural integrity of its environment.

6.4.11 Existing landscape features and elements within and immediately surrounding the Application Site are shown on the Landscape Strategy (**Figure 6.2**) along with the proposed planting. The existing condition of the Application Site, its character and limited level of inter-visibility with the wider landscape are illustrated by site photography included as part of the visual assessment: Viewpoints 1 and 3 - 7 (**Figure 6.5**).

Effect upon the ground cover

6.4.12 The Proposed Development would introduce a new type of development into what is largely arable land. Phase 1 Habitat survey, prepared by Clarkson & Woods Ecological Consultants, indicates that two fields, in the southern part of the Application Site, are laid to pasture – improved grassland. The existing ephemeral ground cover, including the improved grassland, is considered to be of medium value and low susceptibility, being a managed vegetation with arable crop replaced annually. In terms of its sensitivity to the Proposed Development, it is considered to be low.

6.4.13 The existing ephemeral arable crop and grass margins, and improved grassland that characterise the Application Site would be removed, albeit temporarily. Following the completion of the construction stage, the area beneath and between the panels would be sown with a suitable grassland mix to benefit biodiversity. This would be managed as permanent pasture. Grass margins would be sown with a species rich grassland mix (refer to **Figure 6.2** Landscape Strategy for details). Overall, the proposals would replace the ephemeral vegetation with permanent grassland, resulting in a low beneficial magnitude of change. The effects are therefore considered to be minor beneficial. The proposed substation compound would introduce areas of hardstanding, but these would be as small as practical and are dictated by technical requirements. Given the overall extent of the proposed solar farm, this would represent a very small land intake.

Effect upon topography in the Application Site

6.4.14 The gently sloping landform of the Application Site is considered to be uncomplicated, and forms part of the wider gently undulating landscape. Its value is considered to be low with no special visual relationship with the surrounding landform. With limited changes in levels and simple landform, its susceptibility is also assessed as low, overall giving it a low sensitivity.

6.4.15 Due to the light footprint of the proposed solar panels and their character, the prevailing ground levels and indeed the perception of the landform would continue as currently experienced. The arrangement of the solar panels would follow the topography of the Application Site and reflect any variation in its contours. Some ground disturbance would occur during the construction of the access track and foundations for the ancillary elements including the fencing, with the panels pile driven into the ground and not requiring any footings or foundations. Any changes

would be minimal and limited, with the area reinstated to the existing ground levels. The magnitude of change is therefore assessed as negligible resulting in negligible neutral effects across the Application Site.

Effect upon tree and hedge resource

6.4.16 None of the trees within the Application Site's boundaries are protected by any Tree Preservation Order (TPO) or are part of a designed or designated landscape. Hedgerows and hedgerow trees/trees represent a traditional but typical field boundary treatment in this area. For this reason, the value of tree and shrub vegetation is considered to be medium. In terms of susceptibility of hedgerow vegetation, this is considered to be medium to the proposals with this type of vegetation requiring some time to mature and establish as a landscape element. Trees, as a landscape feature are generally more difficult to replace and require a longer time to establish, thus are judged to be of high susceptibility. Overall, the sensitivity of hedgerow vegetation is medium and tree vegetation is high.

6.4.17 As stated by the Arboricultural Impact Assessment, prepared by Barton Hyett Associates (Appendix 6.11, paragraph 6.2) "The development proposals result in none of the survey items being removed in their entirety. However, sectional removal of low quality hedgerow H2 (circa 5m) will be required to allow for a new access into the site."

6.4.18 The partial hedgerow removal of H2 represents a fraction of the overall resource and the magnitude of change is assessed as being negligible, with the effects negligible neutral.

Public Rights of Way (PRoWs)

6.4.19 None of the PRoWs abutting or leading through the Application Site would have to be permanently closed or diverted. The Proposed Development therefore would not have any direct long term effects upon these assets. The Public Footpaths within the Application Site would be retained and enclosed by new hedgerow and hedgerow tree planting – refer to the Landscape Strategy plan (**Figure 6.2**).

6.4.20 Construction traffic would use existing highways and temporary access off Manuden Road.

6.4.21 The PRoW within the Application Site would be directly and temporarily affected due to the construction of the DNO access track crossing the PRoW routes. Such effects would be highly localised and apply to those sections of the PRoW that cross or coincide with the alignment of the proposed DNO access track. A fenced corridor would be maintained to ensure the safety of walkers using this route. There would be no loss or diversion and the routes would remain open throughout the construction works.

Effect upon water features

6.4.22 Some of the Application Site's internal boundaries are marked by field ditches. These are often narrow and steep sided, and are man made and engineered features. The Proposed Development has been designed to allow a separation buffer between the features and the proposed infrastructure. In short, the existing water features would be retained and not physically affected.

Landscape Character Effects

6.4.23 With reference to this wider landscape, the degree of direct change to NCA 86 South Suffolk and North Essex Clayland, Chalk Upland Landscapes A LCT and associated North West Essex Chalk Farmland (A1) LCA, and LCT H Chalk Upland Landscapes and associated LCA H4 Berden and Farnham Chalk Upland arising from construction work within the Application Site would be limited; the landform, landscape structure and scale of field patterns, hedgerows and mature trees, and views of the enclosing scarp would remain unchanged. Temporary, short-term construction activities would locally affect the tranquillity, but this would be very localised and would have no more than a negligible magnitude of change upon these landscape character areas as a whole. With medium sensitivity and a negligible magnitude of change, the significance of effect upon these landscapes would be negligible neutral.

6.4.24 The Application Site is not subject to landscape designation and the landscape within the study area is free from any statutory or non-statutory landscape designations. Therefore, the construction phase of the Proposed Development would not bring about any significant effects.

Night Time Character

6.4.25 The night-time character is that of dark rural skies punctuated by lighting associated with clusters of development in Brick House Wend and Maggot's End, light spill from isolated properties, and movement along the local roads. Localised task lighting may be used for short periods during construction working hours in winter months (e.g. late afternoon/early evening only); no lighting would be used outside of working hours or during summer months. Effects would be temporary and indirect, leading to a negligible magnitude of change. With medium sensitivity and negligible magnitude of change, the significance of effect on night-time character during construction would be negligible.

Visual Receptors

6.4.26 The visual assessment at **Appendix 6.5** considers the representative Viewpoints 1-16 and describes the existing (baseline) view, receptor sensitivity and predicted magnitude of change arising from the construction of the Proposed Development. The assessment was carried out o site, not from photographs, in order to analyse the available views, their extent and nature, and account for the experiential qualities that are not necessarily evident or possible to represent on site photography. An assessment has also been made of other visual receptors that occur in the vicinity of the Application Site, with the static viewpoints used as proxy views or to support the arguments.

Representative Viewpoints

6.4.27 Sixteen representative and illustrative viewpoints have been identified and assessed. The overwhelming majority of them are close to very close range as the visibility of the site is very limited, contrary to the SZTV plan, and views were purposely selected to indicate the worst case scenario as observed in situ. Out of the sixteen viewpoints, receptors present at eight viewpoints have been assessed as potentially experiencing major adverse and significant effects during the construction phase:

- Viewpoint 2.
- Viewpoint 3.
- Viewpoint 4.
- Viewpoint 6.
- Viewpoint 7.
- Viewpoint 9.

- Viewpoint 10.
- Viewpoint 11.

6.4.28 The detailed assessment of the selected viewpoints, in 'winter' views, is included in **Appendix 6.4**.

6.4.29 It is important to reiterate that all of the above locations are very close range and are either located on the boundary of the Application Site or in very close proximity up to approx. 300m away. Therefore, it is inevitable that major adverse effects would occur. This is not representative of the general views of the Application Site from the medium to long range landscape that surrounds the Application Site and local settlements.

6.4.30 Five viewpoints (Viewpoints 1, 5, 12, 13, and 14) were identified as experiencing potential temporary effects of moderate significance during the construction phase (or minor to negligible effects, as experienced by the medium sensitivity road receptors).

6.4.31 Three viewpoints (Viewpoints 8, 15, and 16) were identified as being subject to potential negligible effects during the construction phase.

Residents/Local Community

6.4.32 Site surveys confirmed that potential views from residential and community properties are only limited to some of the properties in Brick House End and Maggot's End, including Battle's Hall. Residents at The Crump immediately to the north, Little London to the north east, Mallows Green, and individual properties and farmsteads in the surrounding areas would not gain any views or views of the construction stage would be inconsequential and negligible, and potentially limited to movement of vehicles only.

6.4.33 With reference to the ZTV plan (**Figure 6.4**), as verified by site survey work, there is no theoretical or actual intervisibility with the Proposed Development from Stocking Pelham, Berden, and Manuden. Whilst patches of theoretical visibility do extend south towards Farnham Green and Farnham, and south east towards Stansted Mountfitchet, any views of the construction phase are predicted to be inconsequential and negligible neutral. This is based on the level of screening within and around the site, change in levels, intervening vegetation, and distance, which collectively would help reduce their visual influence.

6.4.34 With the exception of residents at Brick House End Cottages No.1 and No.2 and Rose Garth, no other receptors would gain direct or relatively unrestricted views of the construction stage across the majority of the Application Site. For these three dwellings, the construction stage is likely to bring about a high degree of change and major adverse yet temporary and reversible effects. RVAA (**Appendix 6.6**) discusses these effects in detail.

6.4.35 The remaining receptors in Brick House End: Brick House, Great Mimms, and Southfields have the views from their dwellings screened or heavily interrupted by the intervening vegetation. With regard to Brick House, the primary elevations are oriented away from the Proposed Development with its curtilage enclosed by hedgerows and trees. It is acknowledged that when trees and hedgerows are devoid of any foliage views from the curtilage are likely to include the construction phase. Views from the front elevation, mainly the upper floor, may also offer very restricted and oblique views towards Blaking's Lane and the western most part of the Development Zone 3. Summer views, however, would be strongly enclosed and it is predicted that the level of inter-visibility would be very limited. As a worst case

scenario, it is predicted that the magnitude of change would be low with moderate adverse effects in winter, diminishing to negligible and negligible neutral effects in summer months.

6.4.36 Similarly, residents near Park Green to the north west: Oakwood, Highfields, Park House Farm, and Sleepy Hollow would have their views either completely screened or heavily restricted. Based on the on-site review, any potential effects are likely to be inconsequential, i.e., negligible neutral with no inter-visibility detected between these receptors and the western parcel of the Application Site.

6.4.37 Residents at Battles Hall have their views heavily screened and restricted by a combination of the perimeter brick wall and garden vegetation, and vegetation along Public Footpath 39-4. Hence the construction stage would be largely screened or heavily restricted in views from the ground floor level and curtilage. As illustrated by photographs at Viewpoint 7 (**Figure 6.5**), the ground floor and front west facing elevation are screened and there is only one window on its side elevation, which would offer less restricted views towards the Application Site. Given its position, size, and lack of other fenestration on this particular side of the dwelling, it transpires that it is likely to form part of ancillary facilities within the dwelling and prospect from that particular window is likely to be less sensitive. Views from the upper floors on the main west elevation of Battles Hall continue to be filtered and screened by the tree canopies. On that basis, the degree of change is considered to be low at most, with temporary moderate adverse effects.

6.4.38 Other properties in Maggot's End may gain views of the construction traffic, as it skirts the northern edge of the hamlet. Such activities are estimated to amount to approximately 16 vehicle movements per day, Given the lack of inter-visibility between the hamlet and the various Development Zone, however, the residents would not gain views of the construction activities, construction compound and human presence within the main part of the Application Site. The magnitude of change is considered to be low with temporary moderate adverse effects at most.

6.4.39 The above assessment is based on the on-site observation only and no supporting figure or photographic evidence has been included in this LVIA – except for **Appendix 6.6**.

PRoW and other areas of public access

6.4.40 With regard to the PRoWs within and immediately around the Application Site, it is predicted that the construction stage would be evident and prominent in certain views, resulting in a high degree of change. The following PRoWs are considered to be subject to major adverse temporary and highly localised effects:

- Blaking's Lane and associated Public Footpath 5-12 (**Figure 6.5**, Viewpoint 9).
- Public Footpath 39-4 along the temporary construction access route and southern edge of the eastern parcel (**Figure 6.5**, Viewpoint 10).
- Public Bridleway 39-37 near Battles Hall (proxy view **Figure 6.5**, Viewpoint 10).
- Public Footpaths 39-7, 39-34, 5-14, 5-14 between Maggots End Road and Brick House End, as they lead towards and cross the Application Site - eastern developable parcel (**Figure 6.5**, Viewpoint 7, 10, and 11).
- Public Footpath 5-25 and Public Bridleways 5-75 and 39-39, between Maggots End Road and Brick House End - around the western developable parcel (**Figure 6.5**, Viewpoints 1 - 4).

6.4.41 This judgment has been made on the basis of the proximity between these receptors and the Application Site. The above assessment is supported by the photographic evidence presented at **Figure 6.5** and the detailed viewpoint assessment at **Appendix 6.4**.

6.4.42 Users associated with Public Footpaths 39-8 and 39-10 and Public Bridleway 39-5 and 39-12, between Mallows Green and Maggots End Road (**Figure 6.5**, Viewpoints 11 – 14), may gain some increasingly distant and very restricted views of the construction stage, the temporary construction compound and activities in the eastern part of the Application Site – seen against Battle's Wood. The degree of change would be low with effects moderate adverse and temporary.

6.4.43 Users travelling along the remaining nearby PRoWs would either not gain any views, or views would be inconsequential and negligible neutral.

Road Users

6.4.44 With regard to road users, Maggots End Road and the dead end road leading to Brick House End are the only relevant public highways. Views on the approach to Brick House End are partially restricted, particularly as one approaches The Crump from Berden. A gap in the roadside vegetation (farm access near the northern edge of the Application Site), just south of The Crump, allows for views in. Such views, however, would be gained through an approximately 15m wide gap only, thus would be transitory and glimpsed and would largely terminate on the hedgerow that marks the edge of the Application Site (**Figure 6.5**, Viewpoint 8). Views quickly become screened by a mature and well developed hedgerow that marks the eastern side of the road, with glimpsed views available near Rose Garth and No.1 and No.2 Brick House End Cottages. Where gained, views would extend towards the northern and central part of the eastern parcel only, with the construction activities seen across the lower lying landscape and enclosed by Battle's Wood and a strong line of trees associated with Blaking's Lane. Views would be oblique to very oblique, restricted, glimpsed and gained in transition, and considerably restricted by the intervening hedgerows. It is predicted that the magnitude of change would be negligible with effects negligible neutral, regardless of the seasonal changes.

6.4.45 With regard to the users travelling along Maggots End Road, the construction work within the western developable parcel is likely to be evident due to the proximity, slope of the site, low height of the boundary hedgerow, and a modest amount of hedgerow trees along this section of the Application Site's boundary (**Figure 6.5**, Viewpoint 5). Such views, however, would only be gained from the slightly elevated section of the road, approximately 0.5km in length – broadly speaking between the 's' bend near Public Bridleway 39-11 and past Pumps Spring woodland as the road dips below the 105m AOD contour line. Whilst this section of the road is not screened by any meaningful vegetation, it has to be recognised that views would be oblique to very oblique and fleeting, and highly localised. Due to the local landform, the road slopes from west to east and views are constrained by the landform with the eye directed west or east – depending on the direction of view. In addition, it is important to acknowledge that Maggots End Road is a local road and thus would not attract a high number of users.

6.4.46 Given the above and the existing landscape context, it is predicted that the construction stage would have a low degree of change upon this particular section of the road, with the effects minor adverse. It is important to reiterate that the remaining part of Maggots End Road, including the low lying section near Battle's Hall, would not offer any views of the construction work or the degree of change would be negligible with effects negligible neutral. The local topography dips to approximately 100m AOD near Public Footpath 39-7 and views from the road are

focused on the gently rising arable fields visible in the foreground, and largely terminate on the nearby woodlands and field boundary hedgerows. Views of construction traffic and activities would be gained through a very narrow angle of view, with the majority of the eastern developable parcel screened by the treed corridor associated with Public Footpath 39-4 (**Figure 6.5**, Viewpoint 11). Given the transitory and restricted nature of such views, the magnitude of change is considered to be negligible and effects negligible neutral (in winter).

6.4.47 Whilst it is accepted that the construction traffic would connect to Manuden Road to the east, and views of the traffic may be gained from the nearby Brixton Lane (located on the eastern side of the valley: **Figure 6.5**, Viewpoint 16), occasional views would be limited to the delivery vehicles only and not the construction activities within the developable areas. For that reason, the degree of change is predicted to be negligible with effects negligible neutral - seen in the context of other vehicle movements along Manuden Road.

6.4.48 No other public highways have been considered relevant, due to the lack of any evident inter-visibility.

Operational Phase

6.4.49 Operational effects upon the landscape and visual receptors would arise from the presence of the solar farm features including the solar arrays, substation/components, fencing and access tracks during the 40-year life of the Proposed Development; any effects would be long-term but reversible upon decommissioning of the development.

Landscape Elements and Features

6.4.50 Based on the Landscape Strategy Plan (**Figure 6.2**) it transpires that the Proposed Development would bring about a net gain in the hedgerow and hedgerow tree resource within the Application Site. As assessed in the preceding paragraphs, the sensitivity of hedgerow vegetation is medium and tree vegetation is high.

6.4.51 The extent and nature of the proposed planting is illustrated by **Figure 6.2** with the Proposed Development bringing a considerable net gain in the hedgerow and tree resource:

- Proposed Hedgerow Planting: 2,082 metres.
- Proposed Small-Scale Tree Planting: 117no.
- Proposed Legacy Large-Scale Tree Planting: 104no.
- Proposed Woodland / Tree Belt Planting: 4075m^2.

6.4.52 The proposed hedgerow, hedgerow tree, and woodland planting would result in a high magnitude of change, and a major beneficial effect within the Application Site during the operational stage of the Proposed Development.

6.4.53 The land use across the developed area of the Application Site would inevitably change from agricultural to a combination of solar energy development, substation and ancillary infrastructure with grassland and new structural planting: hedgerows and trees. This change would only be present during the operational lifespan of the Proposed Development, would be temporary and reversible, but long-term, and would be reversed during decommissioning.

6.4.54 With regard to the existing Public Rights of Way, their physical alignment would not be changed. Effects upon the visual amenity of the associated receptors are

discussed later in this section and supported by the detailed viewpoint assessment carried out in **Appendix 6.4**.

6.4.55 No other landscape features associated with the Application Site would be affected by the operational stage of the Proposed Development, as the direct effects occur only during the construction stage.

Landscape character effects

6.4.56 The Proposed Development would retain and reinforce the existing field boundary vegetation, thus would respect the established field pattern and landscape scale. The published assessment, in its 'Sensitivities to Change' section, refers to **"...small patches of woodland (some of which are ancient) and several springs..."**. This relates to potential direct physical effects i.e., removal or alteration to these features. This is not the case here with the Proposed Development retaining the existing vegetation, albeit limited removal would be necessary to create access points. Such hedge breaches would be localised and very limited, typically 3-5m wide to accommodate internal access tracks.

6.4.57 The Proposed Development would be physically and visually curtailed by the existing mature hedgerows and hedgerow trees that delineate the Application Site's northern parcel and nearby field boundaries, which limit any inter-visibility with the surrounding landscape to the north west, north and north east. This coupled with the localised variations in topography and the presence of Pumps Spring woodland and Battle's Wood act to screen views of the Proposed Development thus protecting the currently experienced aesthetic, perceptual and experiential qualities of the landscape. During the preliminary LVIA works it has been identified that the area between Pump Spring wood, and Maggot's End Road - west of Battle's Hall, exhibits an increased level of inter-visibility with the road and PRoW users, and residents at Battle's Hall. This area, initially included within the Application Site boundary, during the 2021 design stage, therefore has been excluded from development. The Proposed Development utilises the more compartmentalised fields around Battle's Wood and Spring Wood whilst limiting adverse effects upon the field pattern and perception of a wooded landscape, responding in a positive manner to the characteristics of the Application Site.

6.4.58 Following the pre-application discussion with the Council, in May and June 2022, further design changes have been implemented resulting in a considerable reduction in the extent of solar modules in the Application Site's eastern parcel. The changes to the layout included:

- the omission of solar modules in the northern most elevated part of the eastern parcel, that abuts Blaking's Lane; and
- removal of two areas in the southern part of the eastern parcel, that are the closest to PRoWs 39-4 and 5-14 connecting Brick House End with Battles Hall.

6.4.59 The proposed solar panels would be of low profile, being approx. 3m in height, and would follow the gently undulating landform across the Application Site. This in turn would respond to the topography of the surrounding area. Due to this low lying profile, the development would not affect views of any features or elements that may be regarded as eye catching or familiar to local residents such as Pumps Spring woodland and Battle's Wood. The onsite survey did not reveal any views where the Application Site would be visible with any church towers/ spires or any landmarks of cultural or heritage significance. Their contribution to the character of the landscape would remain unchanged. By avoiding development along Maggot's End Road, the appreciation of Battle's Hall and the contribution of its vernacular architecture to the landscape character would remain largely unchanged. Similarly, the existing and proposed vegetative screening and increased buffer to The Crump

and Blaking's Lane which prevents receptors from gaining any simultaneous views that would affect the appreciation or contribution of its architecture and associated Scheduled Monument to the landscape character.

6.4.60 The very limited inter-visibility with the nearby fields and surrounding landscape also helps retain the underlying agricultural character of the wider landscape. The removal of solar modules in the elevated northern part of the eastern parcel would also reduce the visibility of the Proposed Development from the landscape to the south, thus helping preserve the appreciation of its rural character. The sense of openness would decrease locally, but this would be limited to the Application Site itself, with the existing landscape framework already providing a strong sense of enclosure.

6.4.61 In terms of sensory and perceptual qualities of the local landscape, these would remain largely unchanged with the solar panels requiring relatively limited maintenance and access, and personnel to operate. The visibility of the solar panels would theoretically reduce the sense of tranquillity, but the proposed hedgerows and hedgerow trees would act to screen the nearby visual receptors including the PRoWs that cross and abut the Application Site. It is important to note that the proposed planting strategy has been purposely devised to limit views into the Application Site and reduce any adverse visual effects, and not exacerbate adverse effects caused by the large scale pylons and nearby substation at Stocking Pelham.

6.4.62 In order to further reduce the negative influence over the appreciation of the local landscape, as experienced from PRoWs 39-4 and 5-14 connecting Brick House End with Battles Hall, two areas in the southern part of the eastern parcel have been removed. These areas have been retained within the Application Site boundary as open ground converted to permanent grassland. The previously proposed planting to the boundary hedgerows along PRoW 39-4 has been retained, to provide positive influence over the fabric of the local landscape.

6.4.63 The effectiveness of the proposed mitigation planting, wholly in keeping with the local landscape, has been recognised by the Council: **"The proposed mitigation measures will to some extent reduce the wider impact as new planting becomes establish and matures over the lifespan of the development."**

6.4.64 As part of the proposals, the retained tree and hedgerow vegetation would continue to be actively managed to reflect agricultural best practice. Field margins and grassland beneath the panels would be also managed to increase the biodiversity within the Application Site resulting in limited nevertheless beneficial change to the condition and quality of the landscape on a local level.

6.4.65 In terms of landscape pattern, the Proposed Development would introduce a new type of development, but the landscape character is considered robust enough to withstand such limited change. The Proposed Development would not alter the overall field pattern although it is accepted that a new line of hedgerow and hedgerow trees would be introduced in the western most field. Such change is not considered incongruous. The strong sense of enclosure would assist in reducing the visibility of the Proposed Development and any adverse change to the character of the local landscape would be limited. This in turn would help retain the underlying agricultural character of the local landscape, despite the physical presence of the proposed solar farm.

6.4.66 With the Application Site effectively split into two development parcels, the Proposed Development would be formed by two modest scale areas of solar modules, and the overall physical extent and scale of the introduced infrastructure would not be apparent. The removal of the solar modules from parts of the eastern

parcel addressed the issue of visual amenity, perception of the countryside, and perceptual qualities of the landscape character.

6.4.67 On balance, following the iterative design process, the magnitude of change is assessed as low. This takes into account the altered character of the local landscape, which is intrinsically pleasant but nevertheless is influenced by the existing large scale elements of energy related infrastructure.

6.4.68 This would translate to minor adverse effects upon the character of the local landscape and minor adverse effects upon:

- the host LCA H4 'Berden and Farnham Chalk Upland' – district level Braintree, Brentwood, Chelmsford, Maldon And Uttlesford Landscape Character Assessments (2006).
- the North West Essex Chalk Farmland A1 - county level – Essex Landscape Character Assessment (2006).

6.4.69 With regards to the national level South Suffolk and North Essex Clayland (NCA 86), the magnitude of change is considered to be negligible given the modest scale of the Proposed Development, geographical extent, and complex character of this NCA. The effects upon the NCA 89 therefore would be negligible neutral.

Summary Statement

6.4.70 The Proposed Development has been designed to reduce its physical extent and level of inter-visibility, and further design work has been carried out in July 2022 to address the pre-application advice received from the Council. The Proposed Development would physically introduce a new element into the receiving landscape, but its presence would not manifest itself in the landscape due to the relatively high level of enclosure within and around the Application Site, and proposed mitigation measures. The underlying agricultural character of the surrounding landscape would be retained with the perceptual and sensory aspects of the landscape also largely retained, and negative influence reduced by the removal of solar modules in the northern most and southern part of the eastern parcel. The Proposed Development fits well into the existing field pattern and scale of the landscape, does not negatively alter the field boundaries, and is respectful of the existing landscape features that characterise this part of the landscape. Most importantly the Key Characteristics and visual sensitivities, identified in the published assessments at the county and district level, would not be redefined and would continue to characterise the local landscape. The existing landscape character is considered robust enough to withstand the introduced limited change.

Visual Effects

Viewpoint Assessment

6.4.71 Sixteen representative and illustrative viewpoints have been identified and assessed. The overwhelming majority of them are close to very close range as the visibility of the site is very limited, contrary to the SZTV plan, and views were purposely selected to indicate the worst case scenario as observed in situ. Out of the sixteen viewpoints, receptors present at eight viewpoints have been assessed as potentially experiencing major adverse and significant effects during the operational phase:

- Viewpoint 1.
- Viewpoint 2.
- Viewpoint 3.
- Viewpoint 4.

- Viewpoint 5 – PRoW users only (minor adverse effects upon the road users).
- Viewpoint 7.
- Viewpoint 9.
- Viewpoint 10.

6.4.72 The detailed viewpoint assessment of the construction phase, in 'winter' views, is included in **Appendix 6.4**.

6.4.73 As stated before, all of the above locations are very close range and are either located on the boundary of the Application Site or in very close proximity to it. Therefore, any form of development is likely to bring about adverse and significant effects. This is not representative of the predicted general lack of views of the Proposed Development.

6.4.74 Four viewpoints (Viewpoints 6, 11, 12, and 13) were identified as experiencing potential temporary effects of moderate significance during the operational phase at Year 1 (or minor effects, as experienced by the medium sensitivity road receptors at Viewpoint 11).

6.4.75 Four viewpoints (Viewpoints 8, 14, 15, and 16), and the medium sensitivity road receptors at two additional locations (Viewpoints 5 and 11), were identified as being subject to potential minor adverse to negligible neutral effects at Year 1 of the operational phase of the Proposed Development.

6.4.76 None of the identified viewpoints have been assessed as subject to significant residual effects at Year 5 or Year 10.

Public Highways

6.4.77 None of the public highways within the study area, with the exception of the dead end road leading to Brick House End and Maggots End Road, between East End and Maggots End, offer any direct or unrestricted views towards the Developable Areas within the Application Site. The undulating topography, changes in direction and alignment of the roads, and indeed the defining presence of hedgerows and woodlands in the area, screen or considerably restrict views of the Application Site from the surrounding network of public highways.

6.4.78 With regard to the dead end road leading to Brick House End, the expected number of visual receptors would be low, given the very small scale of the hamlet. Views east from the road, towards the Proposed Development are screened and interrupted along the overwhelming majority of the road – as described in the assessment of the construction stage. Views of the proposed solar modules, inverters, fencing with CCTV, and internal access tracks would be potentially gained from the northernmost end of the lane (at Viewpoint 8) and from its southern section, near Rose Garth and No.1 and No.2 Brick House End Cottages. As illustrated by Viewpoint 8 (**Figure 6.5**) views would be heavily filtered with the majority of the Proposed Development not visible. Further south, as one enters the hamlet views are at a right angle and the Proposed Development would fall on the periphery of the view thus its influence would be considerably reduced. The assessment of static Viewpoint 8 considered the degree of change as being low with the visual effects being minor adverse. Considering the length of this lane, the largely restricted and screened nature of views, and the very oblique to right angle nature of views, the overall degree of change upon the travelling road receptor is considered to be negligible with effects negligible neutral at year 1 in winter views.

6.4.79 With regard to the users of Maggots End Road, views do vary to a degree. As one leaves East End, the landform gently slopes east towards a local watercourse, but

views are strongly enclosed by the roadside hedgerows and trees with the road changing its alignment several times. There is a lack of any inter-visibility with the Application Site until the road reaches locally higher ground, marked on the OS Explorer map as 117m AOD – illustrated by Viewpoint 5 (**Figure 6.5)**. From this elevated section of the road, views of Development Zone 5 are partially restricted by the Application Site's field boundary trees and hedgerows, albeit gappy in places. Views of the remaining part of the development (its eastern parcel) would not be gained or such views would be inconsequential. Whilst views of the proposed infrastructure within Development Zone 5 would be gained, these would be slight to very oblique and gained in the context of the large scale substation and pylons that cross the immediate landscape. This would act to mitigate against the introduced change with the quality of the view already slightly diminished. The panels and other infrastructure would be seen directly behind, and partially screened, by the hedgerows and hedgerow trees that mark the southern edge of Development Zone 5. The lack of panels in the northern part of the field, would help preserve the view towards the tree vegetation on the horizon with the sense of openness only locally reduced. The panels would be seen as being contained to the lower lying part of the field with the western edge extending across the slightly higher ground to the left of the view – seen in the direct context of the existing Stocking Pelham Substation.

6.4.80 Further east, as the road descends, the roadside hedgerow is gappy in places with the low lying section of the road lacking any structural vegetation except for seldom growing roadside trees. At this point views towards the Application Site become oblique to very oblique with the southern edge of the Development Zones 2 and 4 screened and considerably restricted by the boundary hedgerows and trees – refer to **Figure 6.5**, Viewpoint 11. The vegetated corridor of Public Footpath 39-4 serves to screen substantial parts of the Proposed Developments and would restrict views of the introduced infrastructure. As one approaches Battles Hall, to the south east of the Application Site, the road again becomes enclosed by hedgerows, and views become very restricted – refer to **Figure 6.5**, Viewpoint 15. When travelling westbound, from Manuden Road to Maggot's End, views of the Proposed Development are screened by the intervening landform (SZTV plan, **Figure 6.4**), residential built form and associated curtilages.

6.4.81 In terms of views from the more open, central and low lying section of Maggot's End Road, i.e., views towards the Development Zones 2 and 4, these would be considerably restricted and partially screened by the vegetation associated with the aforementioned Public Footpath 39-4. Whilst some solar modules may appear above the hedgerow line and amongst the tree canopies, the introduction of the Proposed Development would be inconsequential in visual terms given the glimpsed, transient, and oblique to very oblique nature of the views gained. In such views, at Year 1 and Year 5, the magnitude of change upon travelling road receptors would be negligible with effects negligible neutral, regardless of the seasonal changes.

6.4.82 To reiterate, no other public highways have been considered relevant or offering views towards the Application Site.

Public Rights of Way

6.4.83 The viewpoint assessment, discussed above, includes views from the nearby PRoWs, thus, the assessed static viewpoints provide evidence in terms of the potential visual effects upon these linear receptors.

6.4.84 As described in Section 2 of this LVIA, Public Footpaths 39-4, 39-34, 5-14 and 5-15, cross the Application Site and these PRoWs would be bordered by new

hedgerows, where necessary, and the physical alignment of these PRoWs would be retained. Due to proximity to the Proposed Development, the magnitude of change would inevitably be high with effects major adverse at Year 1. Similarly, views from PRoW that abut or are in very close proximity to the Application Site: 5-57, 5-25, 5-12 and part of 39-3 / Blaking's Lane would also be subject to a high magnitude of change at Year 1.

6.4.85 The proposed Landscape Strategy has been purposely devised to address this, with the existing vegetation reinforced and gaps planted up. The PRoWs that abut the Application Site would be bordered by hedgerow planting: new hedgerow lines or enhanced existing hedgerows, where appropriate. Based on the assumed growth rate, alignment of these PRoWs and changes in landform, it is predicted that views from these routes would be successfully curtailed by the new hedgerows and improved existing hedgerows, and the visual amenity of PRoW receptors would be protected. In such a scenario the magnitude of change would reduce between low to negligible at Year 5 – subject to the nature of views gained. It is, however, predicted that at Year 5 the majority of the Proposed Development would be almost completely screened from these PRoWs given the substantial landscape proposals.

6.4.86 In addition to the above listed PRoWs other routes that are located to the south west and south of the Application Site would also theoretically provide views towards the Proposed Development. These are PRoW 39-8, 39-12, 39-5, and 39-1 (refer to **Figure 6.3** Topography and Visual Receptors Plan). Views from these routes are either completely screened or very restricted. Boundary hedgerows and changes in the topography – shallow valley landscape coupled with field boundary hedgerows, would successfully mitigate against any potential adverse visual effects, when combined with the proposed planting and reduction in the scale of the Proposed Development. In the round it is assessed that the magnitude of change would vary between negligible to low at Year 1, reducing to negligible neutral at Year 5.

Residential Receptors

6.4.87 As explained earlier in this LVIA, a detailed assessment of views from the nearby residential properties has been excluded from this LVIA as these are considered to be private views. The scope of work, however, has been subsequently refined and the following three properties in Brick House End have been subject to a detailed Residential Visual Amenity Assessment: Brick House End Cottages No.1 and No.2 and Rose Garth (**Appendix 6.6**).

6.4.88 The assessment of the construction phase concluded that the above three properties may experience a degree of change. In addition, the residents at Battle's Hall and Brick House have been assessed as subject to a limited degree of change due to the proximity and very restricted nature of views from the property. Thus, it follows that these five dwellings are considered to be relevant in terms of the operational stage of the Proposed Development.

6.4.89 With regard to the Brick House End Cottages No.1 and No.2 and Rose Garth, the assessment carried out in **Appendix 6.6** concluded that at Year 1 the residents would experience major adverse thus significant visual effects. Once the proposed mitigation planting has matured, such effects are expected to diminish to moderate adverse at Year 5.

6.4.90 Receptors at Battle's Hall and Battle's Hall Barns may theoretically gain some views towards the south eastern edge of the site – Development Zone 4. The built form, however, includes single storey buildings along its western edge, enclosed by an approx. 1.5m hedgerow. The roofscape of this single storey building screens the

taller buildings located in the northern and eastern parts of Battle's Hall Barns. Thus, views from the ground floor would be considerably restricted by the built form and garden vegetation and the Barns are single storey built form. Based on the level of inter-visibility between this particular property and Viewpoint 7 (**Figure 6.5**) it is evident that the intervening landform screens this cluster of properties with only the upper storey of Battle's Hall being visible. It is predicted that some views towards the edge of Development Zone 4, located some 280m away, may exist, with the solar modules seen above the brow of the hill and in the context of the large scale electricity pylons. Given the context and restricted nature of views, the magnitude of change is assessed as low with the focus remaining on the immediate foreground and Battle's Wood seen directly to the north. At Year 1 the effects would be moderate adverse. These would diminish at Year 5 to negligible neutral. On that basis, it is predicted that any visibility that may occur from the upper floors would be very restricted by the built form itself.

6.4.91 It is worth mentioning that as part of the mitigation measures and iterative design process the southern extent of the Proposed Development had been removed from the fields along Maggot's End Road. This avoids any direct, heavily restricted, views from the west facing elevation of Battle's Hall. Furthermore, in order to reduce the degree of change upon the Battle's Hall and Battle's Hall Barns further revision to the layout included the omission of solar modules in the area immediately adjacent to Public Footpath 39-4. In other words, the southern extent of Development Zone 4 has been pulled back away for this PRoW and dwellings to provide a greater physical and visual buffer.

6.4.92 With regard to Brick House, this dwelling is set within its own relatively large and enclosed plot. During the site visit (when the vegetation was in leaf) views towards this dwelling from the nearby Public Footpath 5-14 have not been gained due to the intervening hedgerow and tree canopies. In winter, views do penetrate through the boundary vegetation, and include the front north facing elevation. Views from the dwelling, however, are expected to be considerably curtailed by the hedgerow and trees, and the Proposed Development – the western most part of its Development Zone 3 to be precise, would fall on the periphery of their vision. The magnitude of change is assessed, on a precautionary basis, to be low with moderate adverse effects in winter, diminishing to negligible and negligible neutral effects in summer months.

6.4.93 To confirm, the remaining residential receptors within Brick House End and other dwellings in the vicinity of the Proposed Development are considered to have their views either completely screened or considerably restricted. Thus, the operational phase of the Proposed Development is assessed as being inconsequential – negligible with the effects negligible neutral.

Summary of Visual Effects

6.4.94 Based on the viewpoint assessment and site visits it transpires that the Proposed Development would be well contained, taking advantage of the topographical variations in the local landscape, vegetative screening such as tree belts and woodlands, and roadside vegetation across the landscape. The majority of the identified and assessed visual receptors are close to very close range, often located within the Application Site or along its perimeter. It is therefore worth reiterating that the selected viewpoints and analysed receptors are those which are located in close or very close proximity to the site where a higher degree of change is to be expected.

6.5 CUMULATIVE ASSESSMENT

Introduction

6.5.1 **Chapter 2** of this ES describes third party energy developments within the vicinity of the Application Site that have the potential to give rise to cumulative effects. This section sets out cumulative and any in-combination effects on landscape and visual receptors arising from the combined effects of the identified schemes. Where there are no cumulative effects this is also stated.

6.5.2 This section of the LVIA presents an assessment of the potential cumulative landscape and visual effects of the Proposed Development when considered in the context of other solar developments, and other infrastructure identified as relevant and informative to the decision making process.

6.5.3 Cumulative effects arise as a result of more than one development being present, under construction or operation, giving rise to combined effects, so that the cumulative developments influence the landscape character and/ or are experienced at proximity where they may have a greater incremental effect.

6.5.4 The scope of work for this cumulative assessment is based on the requirements issued by the Planning Inspectorate in relation to the nearby solar energy scheme, known as Solar Farm near Stocking Pelham, on land at Berden Hall Farm, Ginns Road, Berden, proposed by Berden Solar Limited (a subsidiary of Statera Energy). Copy of the letter issued by the Planning Inspectorate can be found at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1104158/Berden_Solar_Screening_Direction_Redacted.pdf) Adopting this advice, allows for consistency and comparison of the predicted significant effects. A separate consultation on the scope of cumulative assessment with Uttlesford District Council or the Planning Inspectorate was not sought at this stage.

6.5.5 The Inspector's letter included a reference to the scheme known as Land Near Pelham Substation, Maggots End Road, Manuden (UTT/21/3356/FUL). This ES relates to the resubmission on the same site.

6.5.6 In addition to the above, Pegasus Group has carried out a separate review of the nearby cumulative developments and existing energy related infrastructure. The following scheems are considered relevant to this LVIA and their locations are illustrated **on Figure 6.1**:

- Solar Farm near Stocking Pelham, at Land at Berden Hall Farm, Ginns Road, Berden (S62A/2022/0006/Berden Solar) – also known as Land at Berden Hall Farm.
- Chesterford Park, Little Chesterford, Essex (UTT/21/2846/FUL).
- Land at Cole End Farm Lane, Wimbish (UTT/21/0688/FUL).
- Land at Wickham Hall Estate (3/21/2601/FUL, East Herts).
- Land off Crabbs Lane and Pelham Substation – also known as Stocking Pelham BESS (Cross Boundary Application – East Hearts Planning Application 3/22/0806/FUL/Uttlesford District Council Planning Application UTT/22/1203/FUL).
- Planning Application by Pelham Power Ltd for a BESS scheme (3/21/0969, East Herts).
- the existing Stocking Pelham Substation.
- The operational Land Nort of Pelham Substation, BESS scheme (Decision Notice UTT/17/2075/FUL).

6.5.7 With regard to the existing Stocking Pelham Substation and operational Pelham Battery Storage facility (UTT/17/2075/FUL), and large scale pylons, these features form part of the established baseline. They already influence the local landscape and visual amenity, and are discussed in Section 6.5 of this LVIA.

6.5.8 With regard to the cumulative schemes at Land at Cole End Farm Lane, Wimbish (UTT/21/0688/FUL) and Chesterford Park, Little Chesterford, Essex (UTT/21/2846/FUL), both schemes are located approximately 13km and 15km away respectively. They are not located within the same host LCT or LCA, and there is no inter-visibility between these two cumulative schemes and the Proposed Development. Therefore, there is no potential for any landscape character or visual effects. For that reason, these two cumulative solar schemes are excluded for further assessment.

6.5.9 For the same reason, the proposed solar farm at Land at Wickham Hall Estate (3/21/2601/FUL, East Herts) has been excluded from the assessment. It falls within a different LCA 150 Hadham Plateau, of the East Herts District Landscape Character Assessment, and there is no inter-visibility with the Application Site.

6.5.10 The proposed BESS scheme adjacent to the south west of the existing substation (3/21/0969, East Herts) is considered to be strongly asspciated, in landscape character and visual terms, with the existing Stocking Pelham Substation and operational Pelham Battery Storage facility. It is located within the Anstey & Pelhams Plateau LCA, identified in the East Herts District Landscape Character Assessment and does not share the same visual envelope as the Proposed Development. The review of the LVIA, prepared by Liz Lake Associated, did not reveal any viewpoints that would potentially experience any visual effects. Based on this review it is predicted that there is no potential for any significant landscape character or visual effects, and therefore this cumulative scheme has not been included in this assessment.

6.5.11 On that basis, the cumulative scheme near Berden: Solar Farm near Stocking Pelham and the neighbouring Stocking Pelham Battery Energy Storage System (BESS) project (coordinated by Pegasus Group) are the only relevant schemes for the purpose of this LVIA.

6.5.12 The following paragraphs provide a succinct review of the above shortlisted cumulative schemes, with reference to the relevant appendices: **Appendix 6.7** and **Appendix 6.8**.

Solar Farm near Stocking Pelham project - review

6.5.13 The application drawings available on the Planning Inspectorate website have been reviewed to inform this cumulative assessment. It is understood that the cumulative scheme Solar Farm near Stocking Pelham would have the following parameters:

- The application site comprises four large fields, currently arable.
- Access to the site will use the existing farm entrance off Ginns Road.
- Solar modules would be up to approx. 2.5m in height.
- 10 no. of inverter units would be distributed among the panels, accessed via a combination of existing and proposed farm tracks (formed from crushed stone).
- The inverter units would be of standard design, typically the size of standard shipping containers, and approx. 2.2m high.
- Transformer block, secured by deer proof style fencing, with a small kiosk (approx. 1.7m high) attached.

- 1 no. container for welfare and spare parts: 2m wide x 12.2m long x 2.9m high.
- The perimeter of each field would be secured by a deer proof style fence, approx. 2m high, with galvanised steel double leaf gates, where necessary.
- Single small scale customer 132/11/11kV transformer substation, located in the south western corner of the scheme, adjacent to the existing battery storage scheme.
- Extension to the existing substation.
- The extension to the existing substation and customer substation would be enclosed by palisade fencing, of standard design, and approx. 2.5m in height.
- Existing footpaths will be retained along their same routes, typically within corridors 10 – 15 m wide between existing hedge lines and new hedges / proposed deer fence.

6.5.14 The ZTV plan for the Solar Farm near Stocking Pelham, included in the LVIA prepared by Sightline Landscape (its Appendix 2, Figure 4), indicates that this cumulative scheme would be theoretically visible across the close to medium range landscape north of Ginns Road that connects Stocking Pelham with Berden. The theoretical visibility would extend up to the B1038 to the north, some 1.2km away. Patches of theoretical visibility would also occur to the north east and east, beyond the settlement of Berden but terminate before reaching Clavering and the valley landscape associated with the River Stort. The eastern side of the valley, as it rises towards the hamlet of Rickling, Brick Kiln Lane, and parts of Brixton Lane, is also covered by areas of theoretical visibility. Extract from the LVIA prepared by Sightline Landscape is included in **Appendix 6.7**.

6.5.15 The Solar Farm near Stocking Pelham falls within the LCT H Chalk Upland Landscapes and LCA H4 Berden and Farnham Chalk Upland, as identified in the published Braintree, Brentwood, Chelmsford, Maldon And Uttlesford Landscape Character Assessments.

6.5.16 The following four cumulative schemes have been considered in the LVIA for the Solar Farm near Stocking Pelham:

- Land Near Pelham Substation, Maggots End Road, Manuden (UTT/21/3356/FUL) – this ES Pelham Spring Solar Farm relates to the resubmission on the same site.
- Land At, Cole End Farm Lane, Wimbish (UTT/21/0688/FUL).
- Chesterford Park, Little Chesterford, Essex (UTT/21/2846/FUL).
- Stocking Pelham Battery Energy Storage System (3/22/0806/FUL).

6.5.17 With regard to the LVIA, the following conclusions have been drawn by the consultant with regard to the operational stage of the Solar Farm near Stocking Pelham:

- Moderate to major adverse effects upon the character of the site itself, with residual effects as moderate adverse.
- Minor adverse effects upon the character of the wider area, based on the visibility from around Chalkpit Lane, some 2.7km away.
- Increase in the amount of energy related infrastructure – recognised as a perceptually negative characteristic of the local landscape.
- Moderate to major adverse effects upon Viewpoints 1 – 12 and Viewpoint 14, either in summer or winter, or both.
- Of the above, receptors at four viewpoints have been judged to be subject to moderate-major or major adverse effects: Viewpoint 2, Viewpoint 3, Viewpoint 5, and Viewpoint 12.

- Residual moderate to major adverse effects upon Viewpoint 3, Viewpoint 5, and Viewpoint 12.
- Cumulative landscape character effects were assessed as adverse. Pegasus' Note: the degree of change and scale of effects has not been qualified by the assessor.
- Cumulative effects with Land Near Pelham Substation, Maggots End Road, Manuden (UTT/21/3356/FUL):
- Residual negligible cumulative visual effects upon views from around The Crump (Pegasus' Viewpoint 8; Sightline Landscape Viewpoint 7).
- Residual negligible cumulative visual effects upon views from public highways.
- Residual minor adverse in summer, increasing to moderate adverse in winter, cumulative effects upon the PRoW users in the local landscape.
- Cumulative effects with Stocking Pelham Battery Energy Storage System (3/22/0806/FUL):
- Residual negligible in summer, increasing to minor adverse in winter, cumulative effects. Pegasus' Note: this presumably applies to the very close range views gained from the PRoW that leads between the two schemes.

6.5.18 The aforementioned LVIA concludes with the following statement:

> **"It is concluded that while the Proposed Development will result in some adverse landscape and visual effects the significant effects will be confined to a relatively small area of countryside which is already significantly influenced by electrical infrastructure. Once mitigation is effective the effect to the majority of receptors will be either Negligible or Minor with only those using the footpaths which pass through the proposed solar farm experiencing Moderate adverse effects, largely due to winter views and the loss of the open character along the routes. While the effects will last for the operational life of the solar farm, they will be temporary, with the benefit of a legacy of increased tree and hedge cover across the Site. The adverse effects should be weighed against the benefits of providing renewable energy and achieving the target to minimise climate change."**

Stocking Pelham Battery Energy Storage System (BESS) project - review

6.5.19 The LVIA prepared by Pegasus Group (dated April 2022) describes the site as: "…a single small scale field, currently laid to pasture and used for grazing horses. The boundaries of the field are marked by a low post and rail fence of approx. 1.2m height, and relatively tall and dense hedgerow vegetation with hedgerow trees."

6.5.20 This cumulative scheme falls within East Herts District Council. The local landscape within the administrative boundaries of East Herts District Council has been described in the published Landscape Character Assessment, adopted in September 2007 as Supplementary Planning Document. According to this published Assessment, the cumulative scheme falls within the Landscape Character Area (LCA) 148 Anstey and Pelhams Plateau. The landscape immediately to the east falls within Uttlesford District Council. The published Braintree, Brentwood, Chelmsford, Maldon And Uttlesford Landscape Character Assessments, identifies the area as LCT H Chalk Upland Landscapes and LCA H4 Berden and Farnham Chalk Upland.

6.5.21 With regard to the LVIA, the following conclusions have been drawn by the consultant with regard to the operational stage of the Stocking Pelham BESS project:

- Minor adverse landscape character effects upon the host LCA 148 Anstey and Pelhams Plateau.
- Negligible neutral landscape character effects upon the neighbouring LCT H4 Berden and Farnham Chalk Upland.
- Major adverse effects at Viewpoint 3, in winter views only.
- Moderate adverse effects at Viewpoint 4, in winter views only.
- Residual effects at Viewpoint 3 and Viewpoint 4 have been assessed as negligible neutral in winter.
- Receptors at the remaining viewpoints: Viewpoint 1, Viewpoint 2, and Viewpoint 5 have been assessed as experiencing negligible neutral effects or no change to their views, regardless of the seasonal changes.

6.5.22 The application for the Stocking Pelham BESS project did not include a cumulative assessment.

Cumulative Effects

6.5.23 The first step in the cumulative assessment is an initial assessment to ascertain which of the landscape character receptors, representative viewpoints and principal visual receptors have the potential to undergo significant cumulative effects as result of the addition of the Proposed Development. It should be noted that even if the Proposed Development is assessed to have a significant effect on a landscape character receptor or view, when judged in isolation, it does not necessarily follow that the cumulative effect will also be significant.

6.5.24 A significant cumulative effect will occur where the addition of the Proposed Development to other existing and proposed solar developments or other energy related infrastructure would result in a landscape character or view that is defined by the presence of more than one solar farm and/or energy related infrastructure, and is characterised primarily by such typology so that other patterns and components are no longer definitive.

6.5.25 As with the assessment of effects of the Proposed Development in isolation, the significance of cumulative effects is determined through a combination of the sensitivity of the landscape receptor or view and the magnitude of change upon it. The sensitivity of landscape receptors and views is the same in the cumulative assessment as in the assessment of the Proposed Development, when judged in isolation. However, the cumulative magnitude of change is assessed in a different way, as described in the methodology sub-section and **Appendix 6.1**.

6.5.26 To avoid unnecessary repetition, the landscape character and visual receptors that were found to undergo no effect or negligible neutral effects as a result of the Proposed Development by itself have not been included in the cumulative assessment. In other words, where the Proposed Development would have no effect or a limited effect – negligible neutral on these receptors, there is no potential for it to lead to a significant cumulative effect, in combination with other development, regardless of the typology.

Construction Phase

6.5.27 The cumulative assessment covers the potential long term cumulative effects on the landscape character and visual receptors. Any potential cumulative landscape character and visual effects experienced during the construction phase are not

included, being of short duration and likely to be lower or similar to those assessed at the operational stage. The cumulative effects determined during the operational phase can serve as a proxy for the construction phase.

6.5.28 Cumulative effects can be also generated at the construction stage where the construction areas of two or more cumulative schemes physically overlap and affect the associated landscape features such as vegetation, landform, or other physical features. Such effects, however, are unlikely to arise as the boundary of the Application Site and construction areas for the proposed Solar Farm near Stocking Pelham near Berden do not overlap. Therefore, cumulative effects upon the landscape elements are not included in the cumulative assessment presented in this LVIA.

Operational Phase – Cumulative Landscape Character Assessment

6.5.29 The host LCA H4 'Berden and Farnham Chalk Upland' – district level Braintree, Brentwood, Chelmsford, Maldon And Uttlesford Landscape Character Assessments (2006) has been assessed in Section 6.5 as subject to minor adverse effects as a result of the introduction of the Proposed Development. Whilst such effects are not significant it is prudent to analyse the potential cumulative landscape character effects given the proximity to the identified cumulative schemes and the fact that the Solar Farm near Stocking Pelham cumulative schemes falls within the same host LCA.

6.5.30 Whilst the Stocking Pelham BESS project technically falls within a different LCA, being located in a different administrative boundary, it is right to say that the local landscape between Stocking Pelham, Berden, and Maggot's End share a number of characteristics. In other words, the change in character is gradual, particularly given that all three schemes, and indeed the existing Stocking Pelham Substation, fall on the edge of the identified LCAs. Therefore, for the purpose of this cumulative assessment, this area should be considered as a coherent landscape unit rather than two separate LCAs.

6.5.31 The local landscape is primarily characterised by its agricultural land use and settled character with blocks of woodland and belts of trees marking the horizon, seen as strong features against the sky and compartmentalising the area. The existing Stocking Pelham Substation and associated large scale high voltage pylons and overhead cables collectively form a strong negative feature, in landscape character terms, as recognised in the Council's own published Braintree, Brentwood, Chelmsford, Maldon And Uttlesford Landscape Character Assessments (2006): **"Highly visible double row of pylons and electricity generating station outside Berden"** and **"A complex array of pylons leading to electricity substation near Berden dominates views in the high plateau"**.

6.5.32 The existing substation benefits from a sense of enclosure with the adjacent areas of tree planting enclosing it to the east and south, and in part to the north west and south west. Views from the slightly elevated parts of the local landscape include the upper parts of the substation, which continues to be evident and affects the perception of the local landscape. Equally, there are instances where the existing infrastructure is not visible or evident in some of the low lying and more enclosed medium range views, or does not attract attention with its scale and mass balanced by the surrounding woodlands, which act to screen the infrastructure to a considerable degree. This gives evidence of the effectiveness of the intervening vegetation in certain views, and provides context for the proposed mitigation planting associated with the Proposed Development.

6.5.33 In comparison, the large scale high voltage pylons and overhead cables affect the character of the local area to a higher degree, due to their height and strongly linear nature, traversing the landscape and affecting a large proportion of the available panoramas. Due to their height and horizontal extent the existing structural vegetation provides very little screening.

6.5.34 The cumulative Stocking Pelham BESS project benefits from a substantial amount of vegetative cover that characterises its boundaries. Views in and out are extremely limited and restricted, even in winter months and its influence over the local landscape is considerably reduced.

6.5.35 The presence of the cumulative Solar Farm near Stocking Pelham, once constructed, would be more apparent due to the undulating landform and the pattern of vegetation present along its northern and eastern edge and within the landscape to the north. The southern edge of the cumulative Solar Farm near Stocking Pelham, however, abuts the heavily vegetated corridor that coincides with Public Footpath 5-25, which physically and visually segregates this cumulative site from the landscape to the south.

6.5.36 The addition of the Proposed Development into the landscape, which is already influenced by the large scale Stocking Pelham Substation and multiple large scale high voltage electricity pylons and where the cumulative Solar Farm near Stocking Pelham and cumulative Stocking Pelham BESS have already been constructed, would locally reinforce the presence of energy related infrastructure. This co-location has a number of advantages in landscape character terms: it utilises parts of the local landscape that have already been altered and influenced by the existing large scale infrastructure and cumulative schemes, the landscape scale has already been augmented, the landscape pattern has also been already changed to a degree, and where the perception of the countryside and ruralness, and openness has already decreased. The remaining parts of the local landscape, i.e., outside of the cumulative sites and their immediate environs upon which they exert significant effects, would not be affected and would retain its predominantly agricultural character.

6.5.37 With regard to the perceptual and experiential qualities of the host landscape, there is virtually no inter-visibility between the Proposed Development and the two cumulative schemes located to the north. Therefore, the Proposed Development would be seen in the context of the existing Stocking Pelham Substation and large scale pylons, locally intensifying the presence of the energy related infrastructure. Such visibility, however, would not exacerbate the adverse effects caused by the existing infrastructure. This is due to the different typology, scale and mass, and the way the Proposed Development sits low against the landform rather than punctuating the skyline or creating strong visual and vertical features. The Proposed Development would bring about landscape character effects by virtue of being present in the same local area rather than its visibility or effects upon the perceptual and experiential qualities of the host landscape.

6.5.38 In summary, assuming the cumulative Solar Farm near Stocking Pelham and cumulative Stocking Pelham BESS have already been constructed, with the existing Stocking Pelham Substation and large scale pylons exerting a strong influence over the local landscape, the addition of the Proposed Development would bring about a highly localised high degree of change and major significant effects. Such effects would be limited to the landscape associated with the Proposed Development, the two cumulative sites, and the existing infrastructure, i.e., the landscape between Stocking Pelham and the existing Stocking Pelham Substation to the west and north west, Pelham Road to the north, Berden and The Street to the north east, Blaking's

Lane and Battle's Wood to the east and south east, Maggot's End Road to the south and south west.

6.5.39 Beyond this immediate area, the landscape is expected to undergo a medium degree of cumulative change, given the influence of the aforementioned existing infrastructure and cumulative schemes. On that basis, the local landscape would be subject to moderate cumulative landscape character effects, with the distant landscape subject to low and minor adverse cumulative effects.

6.5.40 Once the proposed mitigation measures associated with the Proposed Development, and indeed the identified cumulative schemes, have matured at Year 10 the degree of change would reduce to low resulting in minor adverse cumulative effects within the immediate landscape.

Operational Phase – Cumulative Visual Assessment

6.5.41 The LVIA for the cumulative Solar Farm near Stocking Pelham, near Berden provided an assessment of 15 viewpoints. **Appendix 6.7** to this **Chapter 6** includes the viewpoint locations and photographic evidence extracted from the LVIA for the Solar Farm near Stocking Pelham cumulative scheme.

6.5.42 The LVIA for the cumulative Stocking Pelham BESS scheme provided an assessment of 5 viewpoints. **Appendix 6.8** to this **Chapter 6** includes the viewpoint locations and photographic evidence extracted from the LVIA for the Stocking Pelham Battery Storage cumulative scheme.

6.5.43 In order to focus on those viewpoints, and by proxy on those visual receptors, that have the potential to experience significant visual effects a scoping out exercise has been carried out in **Appendix 6.9** and **Appendix 6.10**. The scoping of our process reviewed the viewpoints considered in the LVIA prepared for the cumulative Solar Farm near Stocking Pelham, near Berden and the LVIA for the Stocking Pelham BESS scheme, analysing their location, views, inter-visibility with the Proposed Development, and whether those viewpoints were in fact covered by the theoretical visibility of the Proposed Development – as illustrated on **Figure 6.4**.

6.5.44 As evidenced in **Appendix 6.9** and **Appendix 6.10** none of the static receptors (viewpoints) considered in the two above mentioned cumulative schemes have the potential to experience significant visual effects as a result of the Proposed Development. Furthermore, with the exception of views from the dead end road leading to Brick End House hamlet near The Crump, none of those viewpoints offer any clear direct or unrestricted views of the Proposed Development due to the strong landscape framework and changes in the topography. This is illustrated by the cumulative SZTV plans at **Figure 6.7** andf **Figure 6.8**.

6.5.45 In addition, none of the viewpoints identified in this **Chapter 6** Section 6.5, when assessing the Proposed Development in isolation, are covered by the cumulate ZTV for any of the cumulative schemes, except for Viewpoint 8 **Figure 6.5**. In other words, with the exception of Viewpoint 8, none of the LVIA viewpoints associated with the Proposed Development offer cumulative views of any of the identified cumulative sites, either simultaneously or in succession.

6.5.46 With regard to Viewpoint 8, views from the dead end road leading to Brick House End would be glimpsed, fleeting and very restricted with the mature boundary hedgerow enclosing the Development Zone 3 of the Proposed Development. As identified in **Appendix 6.9** views of the Proposed Development from the road are heavily filtered and gained through a gap in the roadside hedgerow. In addition, any cumulative views would be in succession and, in reality, would not be available

to the passing road users as both sites are seen in the opposite direction of view with both views glimpsed. For that reason, the magnitude of change upon the road users is considered to be negligible with negligible neutral cumulative effects in winter months.

Cumulative Views from PRoWs

6.5.47 The review of the PRoWs within the immediate landscape around the Proposed Development, Section 6.5 of this **Chapter 6**, revealed that views are curtailed by a combination of the strong landscape framework around the Application Site and the undulating topography. Views are short to medium range and do not extend north beyond Park Green, The Crumps, and Blaking's Lane. Views from the PRoWs that abut or cross the Application Site, and those to the south of Maggot's End Road may include the Proposed Development but do not offer any views of the landscape to the north around Stocking Pelham or Berden.

6.5.48 In other words, there is no potential for any simultaneous or in succession views of the Proposed Development and the identified cumulative schemes from the local PRoWs.

6.5.49 It has to be acknowledged, however, that some of those PRoWs have the potential to offer sequential cumulative views with the receptors travelling across the local landscape and between the settlements. The PRoWs radiate away from the settlements and cross the landscape in various directions and alignments, offering a variety of visual experiences, sense of enclosure and appreciation of the surrounding area. In the majority of cases, views from those PRoWs would be affected by the visibility of the existing Stocking Pelham Substation and large scale high voltage pylons, and the presence of the cumulative schemes. The cumulative Solar Farm near Stocking Pelham is expected to exert a considerably higher degree of influence when compared with the strongly enclosed small scale cumulative Stocking Pelham BESS.

6.5.50 Whilst there is no single long uninterrupted PRoW that would offer such sequential views, it is predicted that the addition of the Proposed Development would bring about a high degree of change at Year 1 upon the users travelling along the following routes – assuming the users travel continuously along those PRoWs between the settlements of Stocking Pelham, Berden and/or Maggot's End:

- 5-27.
- 5-25.
- 5-26.
- 5-23.
- 5-18.
- 5-21.
- 5-16.
- 5-24.
- 5-22.
- 5-12 / Blaking's Lane.
- Public Bridleway 39-39 and Public Bridleway 5-57.
- 5-52.
- 5-14.
- 5-15.
- 39-34.
- 39-4.

- 39-7.
- Public Bridleway 39-37.

6.5.51 Once the mitigation planting associated with the Proposed Development has matured, in some cases effective at Year 5, the degree of change is likely to reduce to low, and negligible in places. Therefore, the cumulative sequential views are predicted to diminish to moderate adverse and thus not significant along the overwhelming majority of the identified PRoWs.

6.5.52 It is accepted that other adjoining routes may also form part of this sequential experience, but views would be increasingly distant and influenced by other man made features and different types of landscapes. For that reason, such effects are unlikely to be significant.

6.5.53 The PRoWs around Little London, Mallows Green, Manuden, and further beyond would not offer any simultaneous or in succession views of the cumulative schemes. Given the alignment of these PRoWs and the distance between the settlements, they do not appear to form a route that would be frequented by local users commuting between the aforementioned three settlements. In any case, the views gained from those PRoWs would be varied, include open countryside, and offer wide long range panoramic views. The cumulative schemes, if seen, would be experienced as part of a long distance route where a variety of landscapes are experienced. Any visual effects are not expected to be significant.

Cumulative Views from Public Highways

6.5.54 As evidenced earlier in this **Chapter 6**, none of the local highways offer simultaneous or in succession views of the Proposed Development with the identified cumulative schemes.

6.5.55 There is potential for sequential views as one travels extensively through the local landscape along Manuden Road, Pelham Road, and Maggot's End Road. These highways, however, do not form a logical loop and do not serve the same settlements in a way that the travelling receptors would be subject to involuntary views of the Proposed Development and the two cumulative schemes.

6.6 SUMMARY AND CONCLUSIONS

Introduction

6.6.1 The Landscape and Visual Impact **Chapter 6** has considered the potential effects of the Proposed Development on the existing landscape character, landscape components and features, and visual amenity. The Proposed Development has been assessed based on the Rochdale Envelope approach, i.e., a maximum design scenario and height parameters in order to allow for design flexibility, while ensuring that all potentially significant effects (positive or adverse) have been identified and assessed. In determining the level of residual effects, all mitigation measures are taken into account.

6.6.2 The layout of the Proposed Development has been subject to a number of changes, as a result of the iterative design process informed by preliminary findings of the landscape and visual assessment, heritage, and other disciplines. In addition, the currently proposed layout responds to the feedback provided by the Council as part of the pre-application consultation received in April and late June 2022, and aims to address the Council's concerns in relation to the previous scheme submitted by Low Carbon Solar Park 6 Limited on the same site and subject to refused planning application UTT/21/3356/FUL.

Effects During Construction

Effects upon Landscape Elements

6.6.3 There would be no significant adverse effects upon any landscape features associated with the Application Site.

Landscape Character Effects

6.6.4 There would be no significant adverse effects upon the local landscape or any NCAs, LCTS, or LCAs associated with the study area.

Visual Effects

6.6.5 Out of the sixteen viewpoints, receptors present at eight viewpoints have been assessed as potentially experiencing major adverse and significant effects during the construction phase: Viewpoints: 2, 3, 4, 6, 7, 9, 10, and 11.

6.6.6 With the exception of residents at Brick House End Cottages No.1 and No.2 and Rose Garth no other residential receptors have been assessed as gaining direct or relatively unrestricted views of the construction stage across the majority of the Application Site. For these three dwellings, the construction stage is likely to bring about a high degree of change and major adverse yet temporary and reversible effects.

6.6.7 With regard to the PRoWs within and immediately around the Application Site, it is predicted that the construction stage would be evident and prominent in certain views, resulting in a high degree of change and major significant temporary and short duration effects. This would include the following PRoWs: Blaking's Lane and associated Public Footpath 5-12, Public Footpath 39-4 along the temporary construction access route and southern edge of the eastern parcel, Public Bridleway 39-37 near Battles Hall, Public Footpaths 39-7, 39-34, 5-14, 5-14 between Maggots End Road and Brick House End, as they lead towards and cross the Application Site - the eastern developable parcel, Public Footpath 5-25 and Public Bridleways 5-75

and 39-39, between Maggots End Road and Brick House End - around the western developable parcel.

6.6.8 No road users have been judged to experience any significant effects during the construction phase of the Proposed Development.

Effects During Operation

Effects upon Landscape Elements

6.6.9 The Proposed Development has been assessed as resulting in a high magnitude of change, and major beneficial significant effect upon the hedgerow and hedgerow tree resource within the Application Site during the operational stage of the Proposed Development.

6.6.10 No other landscape features associated with the Application Site would be significantly affected by the operational stage of the Proposed Development.

Landscape Character Effects

6.6.11 None of the NCAs, LCTS, or LCAs associated with the study area have been assessed as subject to any significant landscape character effects.

Visual Effects

6.6.12 Out of the sixteen viewpoints, receptors present at eight viewpoints have been assessed as potentially experiencing major adverse and significant effects during the operational phase: Viewpoint 1, Viewpoint 2, Viewpoint 3. Viewpoint 4, Viewpoint 5 – PRoW users only (minor adverse effects upon the road users), Viewpoint 7, Viewpoint 9, Viewpoint 10.

6.6.13 None of the identified viewpoints have been assessed as subject to significant residual effects at Year 5 or Year 10.

6.6.14 None of the road users have been assessed as subject to significant visual effects.

6.6.15 With regard to PRoW users, those present along the following routes have the potential to experience significant adverse effects: Public Footpath 39-4, 39-34, 5-14 and 5-15, which cross the Application Site. Similarly, receptors present along PRoW that abut or are in very close proximity to the Application Site have been judged to be subject to significant visual effects at Year 1: Public Footpath 5-57, 5-25, 5-12 and part of 39-3 /Blaking's Lane.

6.6.16 With regard to the residents at Brick House End Cottages No.1 and No.2 and Rose Garth, the assessment concluded that at Year 1 the residents would experience major adverse thus significant visual effects. Once the proposed mitigation planting has matured, such effects are expected to diminish to moderate adverse at Year 5.

6.6.17 Based on the viewpoint assessment and site visits it transpires that the Proposed Development has been redesigned to be well contained, taking advantage of the topographical variations in the local landscape, vegetative screening such as tree belts and woodlands, and roadside vegetation across the landscape. The majority of the identified and assessed visual receptors are close to very close range, often located within the Application Site or along its perimeter. It is therefore worth reiterating that the selected viewpoints and analysed receptors are those which are located in close or very close proximity to the site where a higher degree of change is to be expected.

Decommissioning

6.6.18 It is anticipated that decommissioning would be a reversal of the construction phase, comprising similar construction plant, traffic, and activities as the arrays, fencing etc. are dismantled. The DNO substation would be potentially retained (on the assumption it will be adopted by a statutory undertaker), but all other materials and structures would be removed, and the Application Site would be 'made-good' and returned to pre-development agricultural uses. All existing healthy mature trees and hedgerows would be retained and managed to maintain these landscape features and appropriate levels of visual enclosure and screening.

Cumulative Effects

6.6.19 The review of the nearby and more distant cumulative scheme has revealed that only two schemes are relevant to this LVIA: the cumulative Solar Farm near Stocking Pelham and cumulative Stocking Pelham BESS.

6.6.20 On balance, the LVIA has concluded that, assuming the cumulative Solar Farm near Stocking Pelham and cumulative Stocking Pelham BESS have already been constructed, with the existing Stocking Pelham Substation and large scale pylons exerting a strong influence over the local landscape, the addition of the Proposed Development would bring about a highly localised high degree of change and major significant cumulative landscape character effects. Such effects would be limited to the landscape associated with the Proposed Development, the two cumulative sites, and the existing infrastructure, i.e., the landscape between Stocking Pelham and the existing Stocking Pelham Substation to the west and north west, Pelham Road to the north, Berden and The Street to the north east, Blaking's Lane and Battle's Wood to the east and south east, Maggot's End Road to the south and south west.

6.6.21 Beyond this immediate area, the landscape has been assessed as not subject to any significant effects.

6.6.22 The cumulative assessment has also included the visual receptros: viewpoints and PRoWs associated with the Application Site. The assessment has concluded that there is no potential for any simultaneous or in succession views of the Proposed Development and the identified cumulative schemes from the local PRoWs due to the lack of any inter-visibility.

6.6.23 The assessment, however, has identified that some of those PRoWs have the potential to offer sequential cumulative views with the receptors travelling across the local landscape and between the settlements. The PRoWs radiate away from the settlements and cross the landscape in various directions and alignments, offering a variety of visual experiences, a sense of enclosure and appreciation of the surrounding area. In the majority of cases, views from those PRoWs have been judged to be affected by the visibility of the existing Stocking Pelham Substation and large scale high voltage pylons, and the presence of the cumulative schemes. The cumulative Solar Farm near Stocking Pelham is expected to exert a considerably higher degree of influence when compared with the strongly enclosed small scale cumulative Stocking Pelham BESS.

6.6.24 The assessment concluded that the Proposed Development would bring about a high degree of change at Year 1 upon the users travelling along the PRoWs between the settlements of Stocking Pelham, Berden and/or Maggot's End.

6.6.25 No other visual receptors have been considered to be subject to significant cumulative visual effects.

Conclusion

6.6.26 The Application Site lies within an area of undesignated undulating, predominantly pastoral landscape, interspersed with frequently occurring woodland blocks, mature trees and hedgerows. This vegetation and subtle changes in topography combine to limit or expose views towards parts of the Application Site from different directions, and the effect which has been used to guide the extent and design of the Proposed Development. The ruralness of the area compromised by the existing large scale Stocking Pelham Substation and large scale high voltage pylons and overhead cables.

6.6.27 On balance, it is considered that the Proposed Development could be successfully accommodated within the Application Site and could be effectively integrated and assimilated into the and surrounding landscape without unacceptable temporary but long-term residual effects on landscape character or visual amenity as a whole. The combination of undulating topography and strong landscape framework around the Proposed Development creates a discrete pocket of land characterised by a limited level of inter-visibility with its wider surroundings. The proposed planting would help contribute to the character of the local area partially offsetting the adverse effects, which only occur locally and affect a very limited number of visual receptors.

6.6.28 **Table 6.5** provides a summary of the identified significant effects, mitigation, and residual effects.

Table 6.5: Summary of Significant Effects, Mitigation and Residual Effects

Receptor/ Receiving Environment	Description of Effect	Nature of Effect	Sensitivity	Magnitude of Effect	Geographical Importance	Significance of Effects	Mitigation/ Enhancement Measures	Residual Effects
Construction Phase (and Decomissioning Phase)								
Landscape Elements and Features								
There would be no significant adverse effects upon any landscape features associated with the Application Site								
Landscape Character								
There would be no significant adverse effects upon the local landscape or any NCAs, LCTS, or LCAs associated with the study area.								
Visual Receptors								
Viewpoint 2	Views of low-level construction site/activity and movement.	Temporary, indirect short-term	High	High	Local	Major	None required	Major
Viewpoint 3	Views of low-level construction site/activity and movement.	Temporary, indirect short-term	High	High	Local	Major	None required	Major
Viewpoint 4	Views of low-level construction site/activity and movement.	Temporary, indirect short-term	High	High	Local	Major	None required	Major
Viewpoint 6	Views of low-level construction site/activity and movement.	Temporary, indirect short-term	High	Medium	Local	Major	None required	Major
Viewpoint 7	Views of low-level construction site/activity and movement.	Temporary, indirect short-term	High	High	Local	Major	None required	Major

Receptor/ Receiving Environment	Description of Effect	Nature of Effect	Sensitivity	Magnitude of Effect	Geographical Importance	Significance of Effects	Mitigation/ Enhancement Measures	Residual Effects
Viewpoint 9	Views of low-level construction site/activity and movement.	Temporary, indirect short-term	High	High	Local	Major	None required	Major
Viewpoint 10	Views of low-level construction site/activity and movement.	Temporary, indirect short-term	High	High	Local	Major	None required	Major
Viewpoint 11	Views of low-level construction site/activity and movement.	Temporary, indirect short-term	High (PRoW users)	Medium	Local	Major	None required	Major
Blaking's Lane and associated Public Footpath 5-12	Views of low-level construction site/activity and movement.	Temporary, indirect short-term	High	High	Local	Major	None required	Major
Public Footpath 39-4	Views of low-level construction site/activity and movement.	Temporary, indirect short-term	High	High	Local	Major	None required	Major
Public Bridleway 39-37	Views of low-level construction site/activity and movement.	Temporary, indirect short-term	High	High	Local	Major	None required	Major
Public Footpaths 39-7, 39-34, 5-14, 5-14	Views of low-level construction site/activity and movement.	Temporary, indirect short-term	High	High	Local	Major	None required	Major

Receptor/ Receiving Environment	Description of Effect	Nature of Effect	Sensitivity	Magnitude of Effect	Geographical Importance	Significance of Effects	Mitigation/ Enhancement Measures	Residual Effects
Public Footpath 5-25	Views of low-level construction site/activity and movement.	Temporary, indirect short-term	High	High	Local	Major	None required	Major
Public Bridleways 5-75 and 39-39	Views of low-level construction site/activity and movement.	Temporary, indirect short-term	High	High	Local	Major	None required	Major
Brick House End Cottages No.1 and No.2 and Rose Garth	Views of low-level construction site/activity and movement.	Temporary, indirect short-term	High	High	Local	Major	None required	Major
Operational Phase								
Landscape Elements and Features								
Woodland, tree and hedgerow resource	Increase in quantum	Temporary. Long-term but reversible (if judged to be necessary)	Medium to High	High	High	Major	None required	Major
Landscape Character								
There would be no significant adverse effects upon the local landscape or any NCAs, LCTS, or LCAs associated with the study area.								
Visual Receptors								
Viewpoint 1	Change to view	Temporary, long-term but reversible	High	Medium	Local	Major	Mitigation planting along the edge the of Development Zones	Moderate

Receptor/ Receiving Environment	Description of Effect	Nature of Effect	Sensitivity	Magnitude of Effect	Geographical Importance	Significance of Effects	Mitigation/ Enhancement Measures	Residual Effects
Viewpoint 2	Change to view	Temporary, long-term but reversible	High	High	Local	Major	Mitigation planting along the edge the of Development Zones	Moderate
Viewpoint 3	Change to view	Temporary, long-term but reversible	High	High	Local	Major	Mitigation planting along the edge the of Development Zones	Moderate
Viewpoint 4	Change to view	Temporary, long-term but reversible	High	High	Local	Major	Mitigation planting along the edge the of Development Zones	Moderate
Viewpoint 5	Change to view	Temporary, long-term but reversible	High (PRoW users)	Medium (PRoW users)	Local	Major (PRoW users)	Mitigation planting along the edge the of Development Zones	Moderate (PRoW users)
Viewpoint 7	Change to view	Temporary, long-term but reversible	High	High	Local	Major	Mitigation planting along the edge the of Development Zones	Moderate
Viewpoint 9	Change to view	Temporary, long-term but reversible	High	High	Local	Major	Mitigation planting along the edge the of Development Zones	Moderate

Receptor/ Receiving Environment	Description of Effect	Nature of Effect	Sensitivity	Magnitude of Effect	Geographical Importance	Significance of Effects	Mitigation/ Enhancement Measures	Residual Effects
Viewpoint 10	Change to view	Temporary, long-term but reversible	High	Medium	Local	Major	Mitigation planting along the edge the of Development Zones	Moderate
Public Footpath 39-4, 39-34, 5-14, 5-15, 5-57, 5-25, 5-12 / 39-3 (Blaking's Lane).	Change to view	Temporary, long-term but reversible	High	High	Local	Major	Mitigation planting along the edge the of Development Zones	Moderate (at most)
Brick House End Cottages No.1 and No.2 and Rose Garth	Change to their outlook	Temporary, long-term but reversible	High	High	Local	Major	Mitigation planting aliong the western edge of the Development Zones 2, 3, and 4	Moderate
Cumulative Effects – Operational Phase								
Landscape Character								
Immediate landscape only: that associated with the Proposed Development and the cumulative	Change to the landscape pattern and ruralness	Temporary, long-term but reversible	Medium	High	Local	Major	Mitigation planting along the edge the of Development Zones	Moderate

Receptor/ Receiving Environment	Description of Effect	Nature of Effect	Sensitivity	Magnitude of Effect	Geographical Importance	Significance of Effects	Mitigation/ Enhancement Measures	Residual Effects
scheme at Solar Farm near Stocking Pelham - Land at Berden Hall Farm								
Visual Receptors								
PRoWs between the settlements of Stocking Pelham, Berden and/or Maggot's End	Change to view	Temporary, long-term but reversible	High	Medium	Local	Major	Mitigation planting along the edge the of Development Zones	Moderate

Table 6.6: Glossary

Term	Description
AGL	Above Ground Level – height measured from the ground usually measured in metres AGL (mAGL)
AOD	Above Ordnance Datum – baseline standard for expressing height relative to the Ordnance Datum at Newlyn, Cornwall usually measured in metres AOD (m AOD)
AONB	Area of Outstanding Natural Beauty
BS	British Standard - standards produced by BSI Group
CA	Conservation Area
CCTV	Close Circuit Television – security cameras
CEMP	Construction Environmental Management Plan
CZTV	Cumulative Zone of Theoretical Visibility (see ZTV)
Construction Environmental Management Plan	A site or project specific plan designed to ensure best practice and/or appropriate environmental management practices are applied throughout the construction, operation and/or demolition phases of a project.
Cumulative Zone of Theoretical Visibility	Cumulative Zone of Theoretical Visibility – used within LVIAs to identify areas of interest for further investigation and assessment where the proposed development may be seen additionally, consecutively or sequentially with other similar existing or proposed developments.
DAS	Design and Access Statement
Design and Access Statement	A statement accompanying and supporting an application that sets out the rationale for the design approach and how the Proposed Development would be accessed for a range of users
EIA	Environmental Impact Assessment – process of identifying the likely significance of environmental effects arising from a proposed development.
Environmental Impact Assessment	Process for identifying the likely significance of environmental effects (beneficial or adverse) arising from a Proposed Development, by comparing the existing environmental conditions prior to development (the baseline) with the environmental conditions during/following the construction, operational and decommissioning phases of a development should it proceed.
Environmental Statement	Document setting out the findings of an Environmental Impact Assessment
ES	Environmental Statement – document reporting on the findings of an EIA.

Term	Description
Flood Risk Assessment	An assessment as to the current and future flood risk of an area where development is proposed. A FRA is supporting information for a planning application
FRA	Flood Risk Assessment
GE	Google Earth
GLVIA3	'Guidelines for Landscape and Visual Impact Assessment. Third Edition' published in April 2013 by the Landscape Institute and the Institute of Environmental Management and Assessment. Guidance providing advice on the process of assessing the landscape and visual effects of developments and their significance.
ha	Hectare – unit of measurement 100m x 100m, or 10,000m^2
Hedgerows Regulations 1997	Regulations which aims, according to guidance produced by the Department of the Environment, "to protect important hedgerows in the countryside by controlling their removal through a system of notification. In summary, the guidance states that the system is concerned with the removal of hedgerows, either in whole or in part, and covers any act which results in the destruction of a hedgerow. The procedure in the Regulations is triggered only when land managers or utility operators want to remove a hedgerow. The system is in favour of protecting and retaining 'important' hedgerows. The Hedgerow Regulations set out criteria that must be used by the local planning authority in determining which hedgerows are 'important'. The criteria relate to the value of hedgerows from an archaeological, historical, wildlife and landscape perspective.
HTA	Horticultural Trade Association - represents the UK garden industry with wide ranging membership
km	Unit of measurement for distance, 1km = 1000m
Landscape and Ecology Management Plan	This is a document which is drafted, usually with input both from suitably experienced ecologist and landscape architects, and sets out the management aims and prescriptions to be implemented
Landscape Character Area	Single unique areas which are the discrete geographical areas of a particular landscape type. Each has its own individual character and identity, even though it shares the same generic characteristics with other types.
Landscape Character Type	These are distinct types of landscape that are relatively homogeneous in character. They are generic in nature in that they may occur in different areas in different parts of the country, but wherever they occur they share broadly similar combinations of geology, topography, drainage patterns, vegetation, historical land use, and settlement pattern.

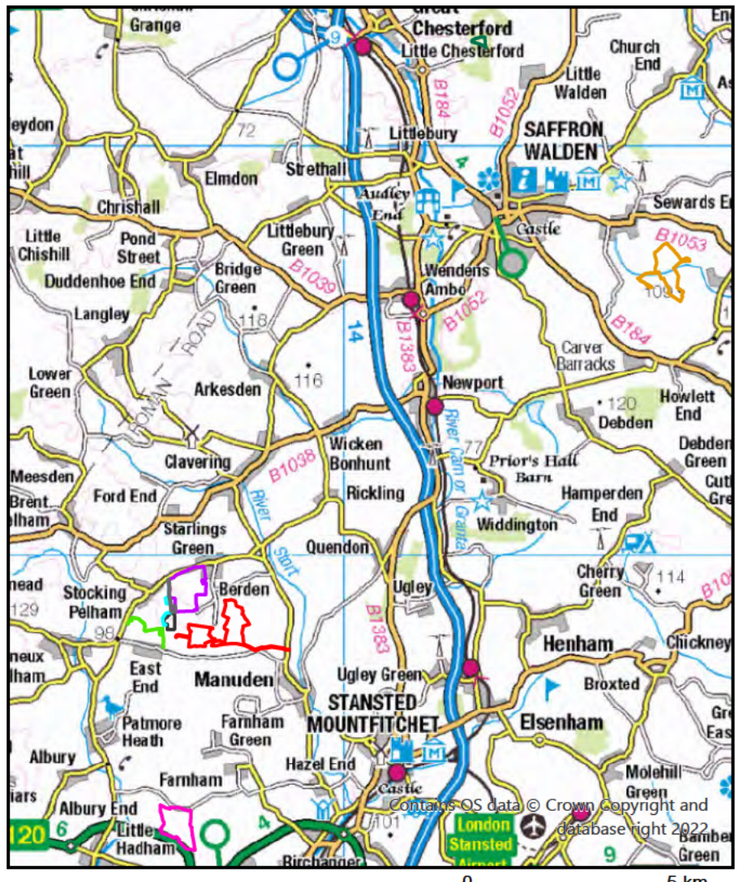
Term	Description
LCA	Landscape Character Area
LCT	Landscape Character Type
LEMP	Landscape and Ecology Management Plan
Local Planning Authority	The Council (County, Borough or District) that is empowered by law to exercise statutory town planning functions for a particular area (administrative boundary) of the UK
LPA	Local Planning Authority
LVIA	Landscape and Visual Impact Assessment – a documented and unbiased assessment of effects projects / developments may have on the identified landscape and visual resource.
MAGIC	'Multi Agency Geographic Information for the Countryside' website – Government sponsored website containing environmental data from several public bodies including Natural England, the Environment Agency, English Heritage, Forestry Commission, Marine Management Organisation and the Department for Environment, Food and Rural Affairs
National Character Areas	Previously known as Joint Character Areas developed by the then Countryside Agency. These are areas that share similar landscape characteristics. See also LCA.
National Cycle Network	The national cycling route network of the United Kingdom, established and maintained by the charity Sustrans.
National Parks and Access to the Countryside Act 1949	The Act provided the framework for the creation of National Parks and Areas of Outstanding Natural Beauty in England and Wales, and also addressed public rights of way and access to open land.
National Planning Policy Framework	Document setting out the Government's planning policies for England and instruction on how they are expected to be applied
National Planning Practice Guidance	On-line resource to support the implementation of the NPPF
NCA	National Character Areas
NCN	National Cycle Network
NPPF	National Planning Policy Framework
NPPG	National Planning Practice Guidance
NTS	Non Technical Summary – Summary document in a non-technical language
OS	Ordnance Survey – Mapping agency
PPG	Planning Practice Guidance
PRoW	Public Rights of Way – footpath, bridleway or byways over which members of the public have a right

Term	Description
Receptor	A location, feature (trees, hedgerows, PROW) or individual (person, road user) upon which the effects of a proposed development is assessed, i.e. the receiving environment
SM	Scheduled Monument
SSSI	Site of Special Scientific Interest - conservation designation denoting a protected area in the United Kingdom
Statutory Development Plan	An aspect of the town and country planning system in the UK comprising a set of documents that set out the Local Authorities policies and proposals for the development and use of land in their area.
SZTV	Screened Zone of Theoretical Visibility - – used within LVIAs to identify areas of interest for further investigation and assessment. This is typically based on the landform, built form and structural vegetation (as identified on OS maps). Optionally, it may include National Tree Data, which includes a detailed survey of any vegetation over 3m height.
ZTV	Zone of Theoretical Visibility – used within LVIAs to identify areas of interest for further investigation and assessment, based on topography alone, i.e., bare earth scenario without any screening features.

Figure 6.1 Site and Cumulative Schemes Location Plan.

KEY

- Site Boundary
- Land at Berden Hall Farm
- Chesterford Park- 14.84 km from Main Site
- Cole End Farm Lane- 12.44 km from Main Site
- Land at Wickham Hall Estate
- Stocking Pelham BESS
- BESS Scheme
- Pelham Substation and Battery Storage Facility
- Land North of Pelham Substation



Scale: 1:150,000 @ A3

0 5 km

Figure 6.1

Site and Cumulative Schemes Location Plan

DRWG No: **P20-1300_02** Sheet No: - REV: _

Date: 05/09/2022

Scale: 1:25,000 @ A3

DESIGN | ENVIRONMENT | PLANNING | ECONOMICS | HERITAGE

0 1 km

N

Figure 6.2 Landscape Strategy Plan.

Proposed Tree Planting

To be planted along hedgerows

Species	Common Name	Mix %	Deciduous / Evergreen	Girth	Height	Habit	Clear stem	Root Condition
Acer campestre	Field Maple	40%	Deciduous	14-16	350-425	Heavy Standard	Min. 200cm	B
Quercus robur	Oak	25%	Deciduous	14-16	350-425	Heavy Standard	Min. 200cm	B
Sorbus torminalis	Wild Service Tree	35%	Deciduous	14-16	350-425	Heavy Standard	Min. 175cm	B

Proposed Hedgerow Planting Planting

To be planted at 5 per linear metre in a double staggered row, rows will be 40cm apart or as appropriate where infilling gaps in existing hedgerows

Species	Common Name	Mix %	Deciduous / Evergreen	Height / Spread cm	Form	Age / Times Transplanted	Root Condition
Acer campestre	Field Maple	5%	Deciduous	60-80	Transplant	1+1	B
Cornus sanguinea	Dogwood	5%	Deciduous	60-80	Transplant	1+1	B
Corylus avellana	Hazel	10%	Deciduous	60-80	Transplant	1+1	B
Crataegus monogyna	Common Hawthorn	70%	Deciduous	60-80	Transplant	1+1	B
Rosa canina	Dog Rose	5%	Deciduous	60-80	Transplant	1+1	B
Sambucus nigra	Elder	5%	Deciduous	60-80	Transplant	1+1	B

Note
Internal field boundaries within the Site should be retained, and where necessary infilled with native species in line with the landscape guidelines for the local landscape character.

Trees within the Site along field boundaries or in tree belts should be monitored and pruned accordingly to prevent overshadowing on the panels.

Emorsgate EM2 Standard General Purpose Meadow Mix - to be used to field margins and open meadow areas

Woodland planting to include 'legacy' large scale native trees e.g. English Oak

Proposed approximately 5m wide woodland planting to enhance the existing vegetation and provide screening from the PRoW

Existing hedgerow to be reinforced with legacy large scale native trees (such as Oaks) to reduce visual impact to the west

Existing hedgerow to be reinforced with legacy large scale native trees (such as Oaks) to reduce visual impact to the west

Proposed native hedgerow with legacy large scale native trees (such as Oaks) within to reduce visual impact from the north

Proposed woodland planting with small scale trees only to provide screening and habitat connectivity between the existing vegetation

Legacy large scale native trees (such as Oaks) planted to reinforce the existing hedgerow

New structural planting to take the form of a tall hedgerow with frequent trees, managed at maturity at approx 6m height.

Copse formed by small scale trees to interrupt views of the panels

Gaps within hedge to be filled with native hedgerow planting and trees

Existing hedgerow to be reinforced with legacy large scale native trees (such as Oaks) to reduce visual impact to the south

Existing hedgerow vegetation to be reinforced / gapped up with legacy tree planting (such as Oaks) to control views from PRoW and nearby properties.

Tree belt: small scale tree planting to reinforce the existing tree groups and restrict views from the south.

Small scale tree planting to reinforce the existing hedgerow and tree groups and restrict views from the south.

KEY

- Site Boundary
- Inverters
- CCTV
- Solar Panel Modules
- Battery Storage
- Transformer
- Access Road
- Security Fence
- Temporary Compound
- Bridleways
- Public Footpaths
- Overhead Power Line
- Easements
- Existing Woodland and Hedgerow (For further information, refer to Tree Survey and Constraints Plan prepared by Barton Hyett)
- Existing Hedgerow to be removed (12 lin. m)
- Old Fashioned Grazing Mixture to Panel Compounds (45.05ha) Grazing mixture suitable for sheep grazing
- EM2 Standard General Purpose Meadow Mix (13ha) Meadow mixture suitable for clay soils
- Areas for reptiles (0.63ha) Existing grass to be retained, overseeded with EM10 Tussock Grass Mix, and appropriately managed as tussock grass for ecological benefit
- Area for Skylark conservation (12.15ha) Meadow mixture suitable for clay soils
- Proposed Hedgerow Planting (2,082 lin. m)
- Proposed Small-Scale Tree Planting (117no.)
- Proposed Legacy Large-Scale Tree Planting (104no.)
- Proposed Woodland / Tree Belt Planting (4075m²)

FIGURE 6.2
Landscape Strategy

DRWG No: **P20-1300_06** REV: **Q**

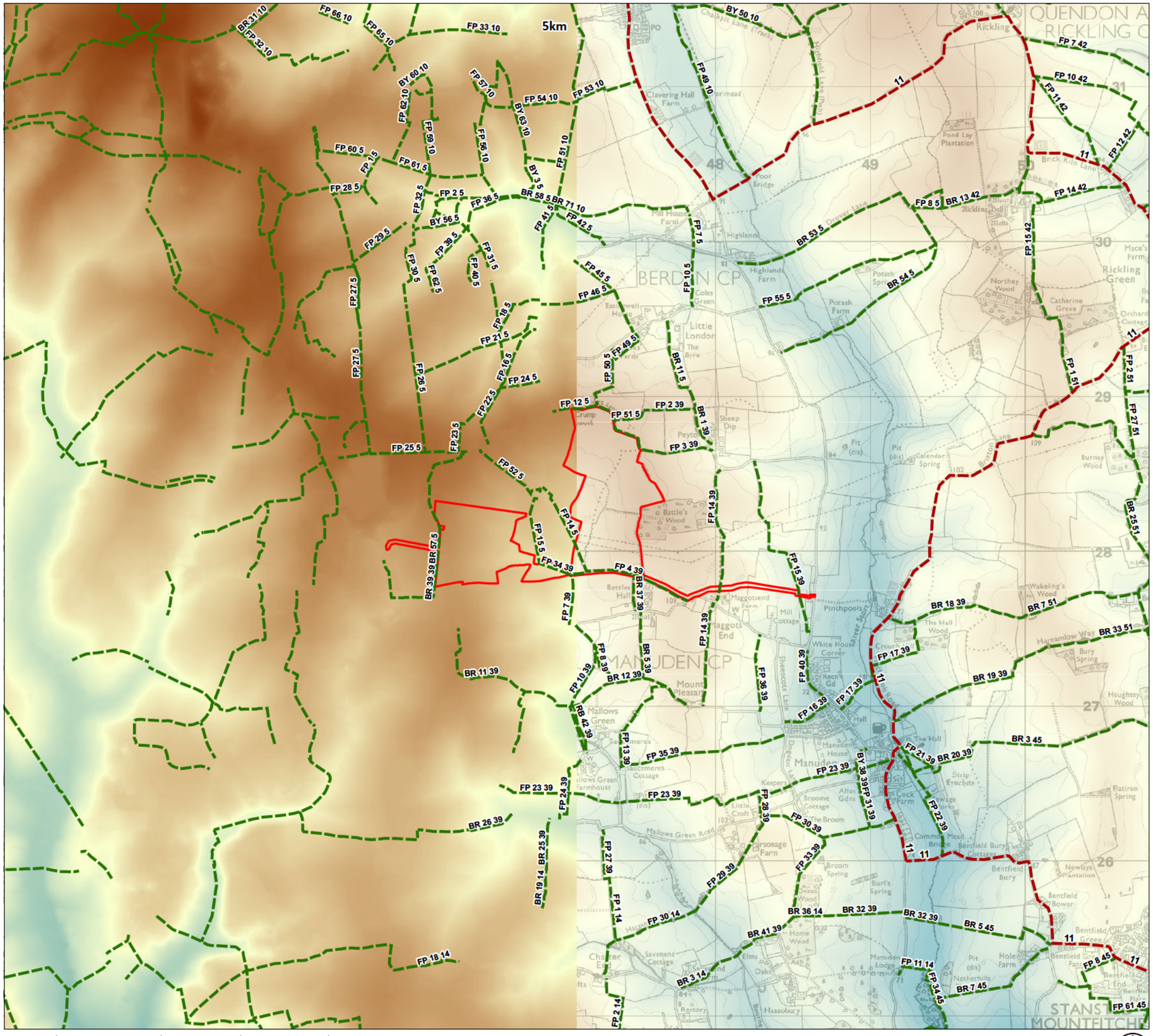
Date: 05/12/2022

Scale: 1:2500 @A1

0 100m

N

Figure 6.3 Topography and Visual Receptors Plan.



KEY

- Site Boundary
- SUSTRANS National Route
- Public Right of Way

DTM (metres above ordnance datum)

High : 135m

Low : 60m

Figure 6.3

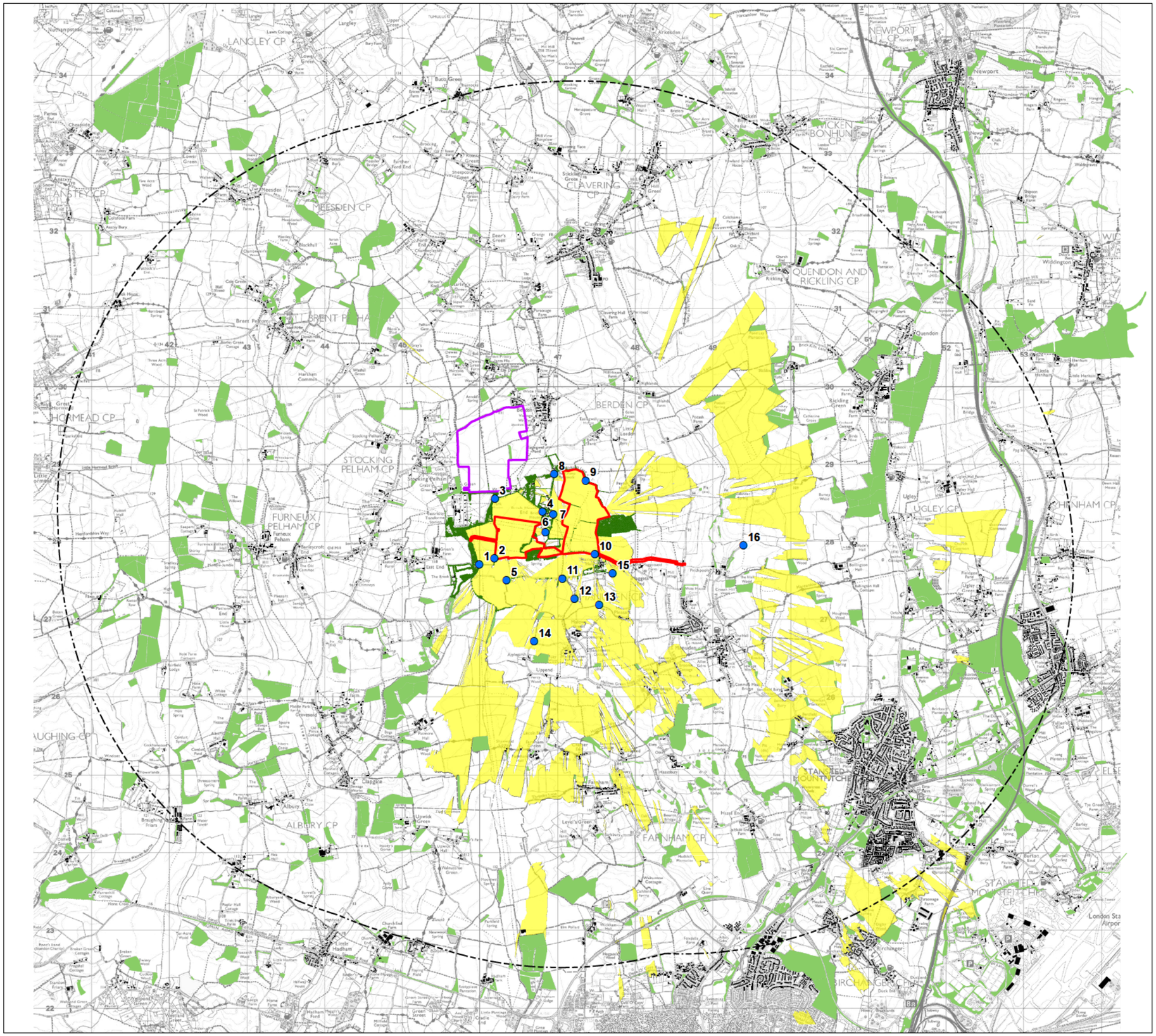
Topography & Visual Receptors Plan

DRWG No: **P20-1300_03** Sheet No: **-** REV: **C**

Date: 05/09/2022

Scale: 1:25,000 @ A3

Figure 6.4 Screened ZTV and Viewpoint Locations Plan.



KEY

- Site Boundary
- 5km Buffer
- Land at Berden Hall Farm
- OS Open Map Local Building
- OS Open Map Local Woodland
- National Tree Map Data (2019)
- Zone of Theoretical Visibility – 3m Development Height
- Viewpoint Location

Viewpoint 16 relates to the previously proposed design and larger extent of the Proposed Development. This viewpoint has been retained for consistency

DESIGN | ENVIRONMENT | PLANNING | ECONOMICS | HERITAGE

0 2 km

N

Figure 6.4

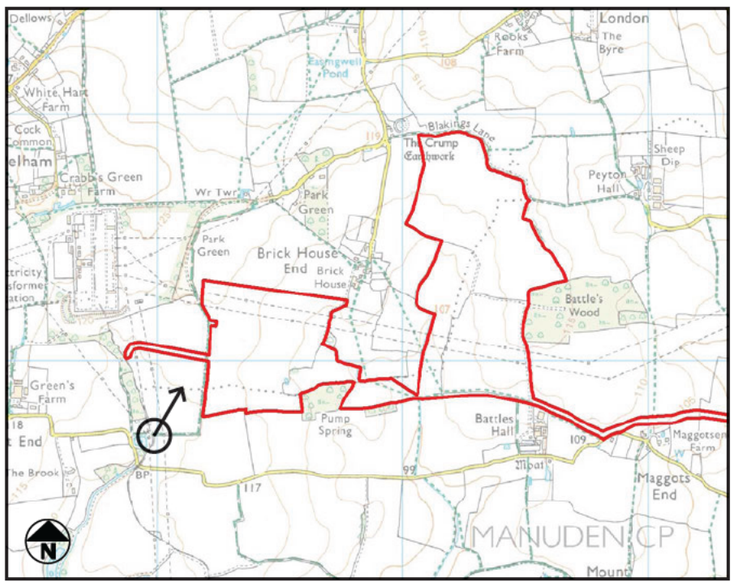
Screened Zone of Theoretical Visibility and Viewpoint Location Plan

DRWG No: **P20-1300_01** Sheet No: **-** REV: **E**
Date: 05/09/2022
Scale: 1:50,000 @ A3

Figure 6.5 Baseline Panoramas.

CONTEXT BASELINE VIEWPOINT 1A

Public Bridleway 39-39 , between East End and the site, looking north east to east.



Camera make & model	- Canon EOS 5D, FFS	**Viewpoint height (AOD)**	- 114m
Date & time of photograph	- 29/06/2021 @ 10:00	**Distance from site**	- 210m
OS grid reference	- 545987, 227708		

FIGURE 6.5

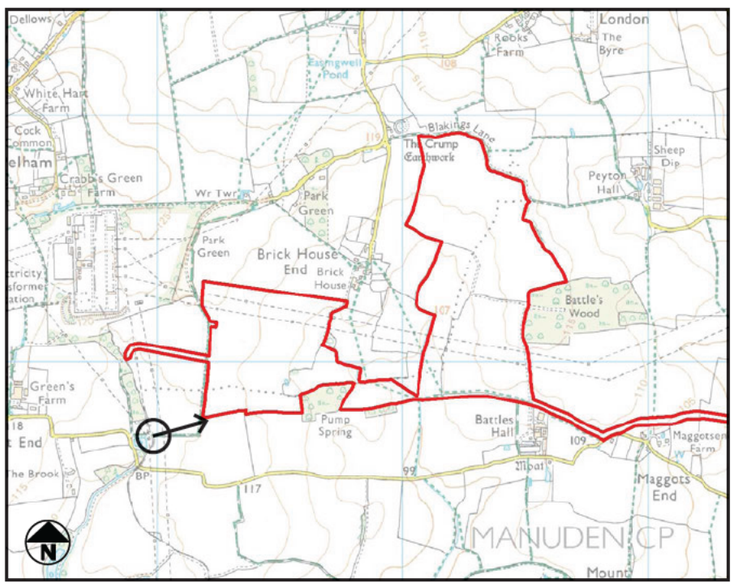
Context Baseline Views

DRWG No: P20-1300_07 REV: E

Date: 23/01/2023

CONTEXT BASELINE VIEWPOINT 1B

Public Bridleway 39-39, between East End and the site, looking north east to east.



Camera make & model	- Canon EOS 5D, FFS	**Viewpoint height (AOD)**	- 114m
Date & time of photograph	- 29/06/2021 @ 10:00	**Distance from site**	- 210m
OS grid reference	- 545987, 227708		

FIGURE 6.5

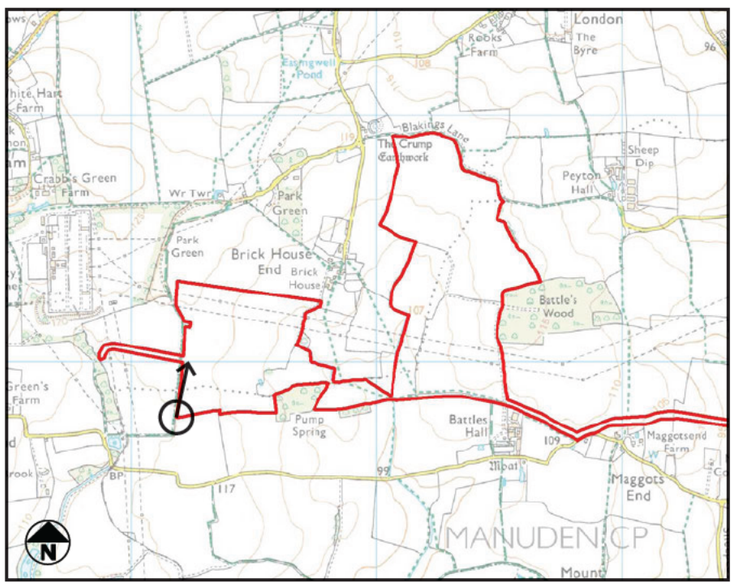
Context Baseline Views

DRWG No: P20-1300_07 REV: E

Date: 23/01/2023

CONTEXT BASELINE VIEWPOINT 2A

Public Bridleway 39-39, south western corner of the site, looking north to east.



Camera make & model	- Canon EOS 5D, FFS	**Viewpoint height (AOD)**	- 116m
Date & time of photograph	- 29/06/2021 @ 10:04	**Distance from site**	- 5m
OS grid reference	- 546183, 227788		

FIGURE 6.5

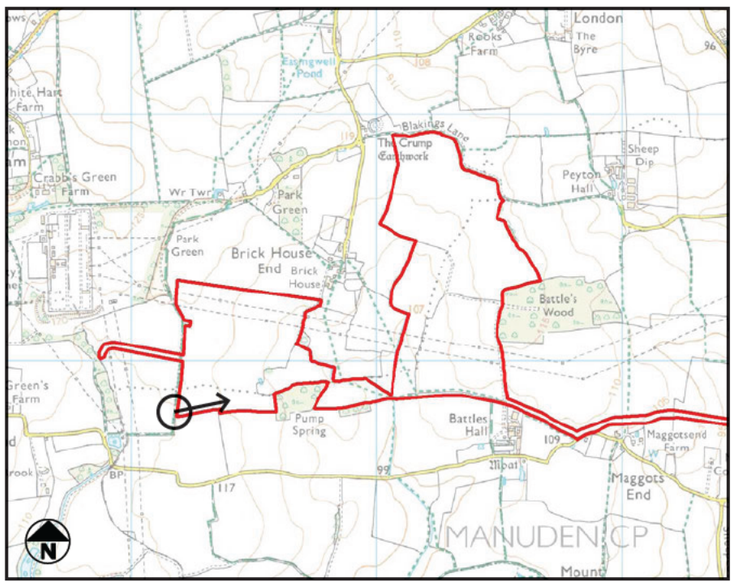
Context Baseline Views

DRWG No: P20-1300_07 REV: E

Date: 23/01/2023

CONTEXT BASELINE VIEWPOINT 2B

Public Bridleway 39-39, south western corner of the site, looking north to east.



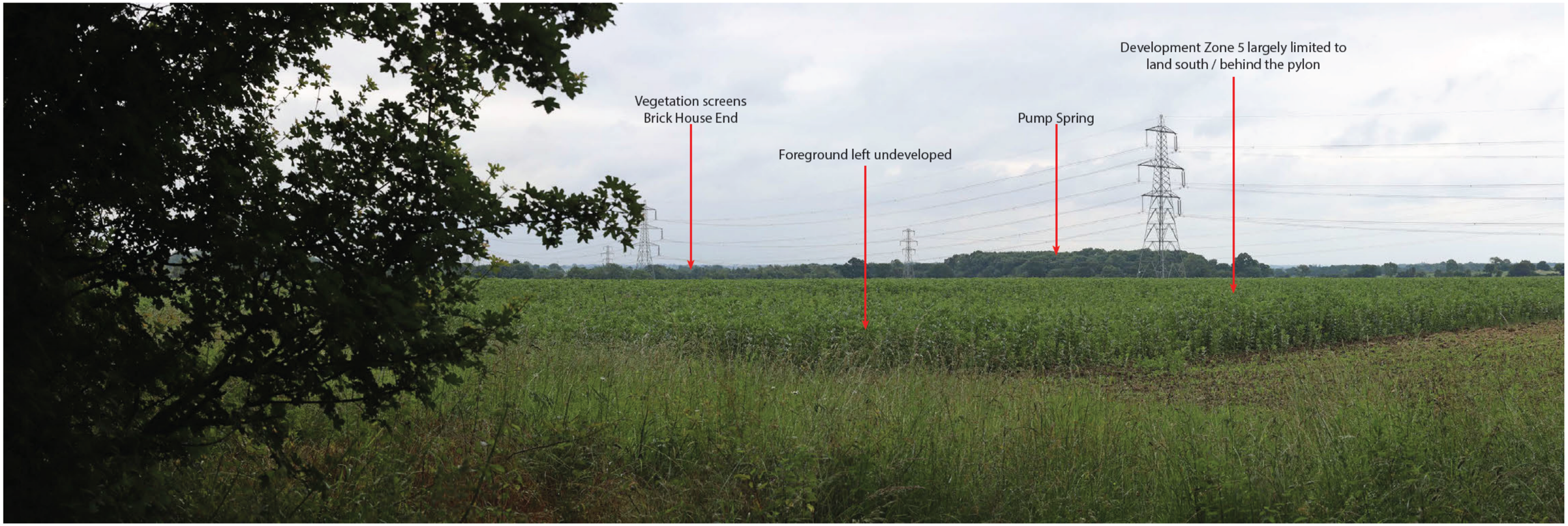
Camera make & model	- Canon EOS 5D, FFS	**Viewpoint height (AOD)**	- 116m
Date & time of photograph	- 29/06/2021 @ 10:04	**Distance from site**	- 5m
OS grid reference	- 546183, 227788		

FIGURE 6.5

Context Baseline Views

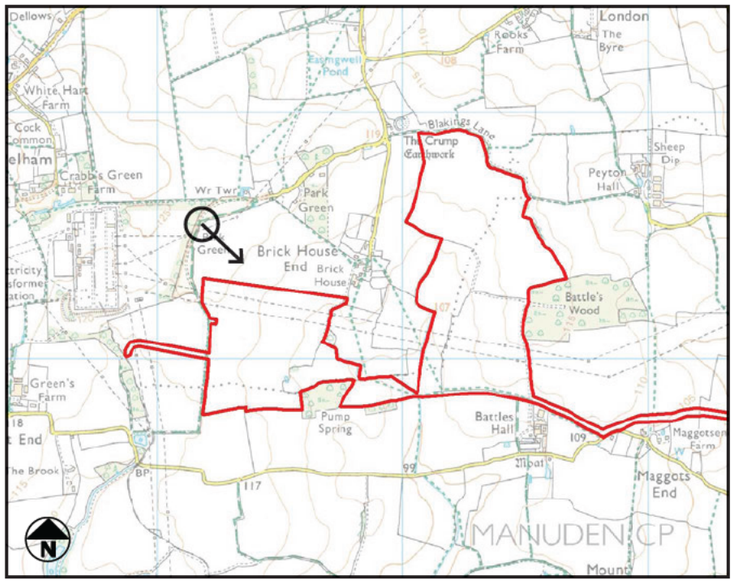
DRWG No: P20-1300_07 REV: E

Date: 23/01/2023



CONTEXT BASELINE VIEWPOINT 3A

Public Bridleway 57-5, south west of the site at Park Green, looking south to south east.



Camera make & model	- Canon EOS 5D, FFS	**Viewpoint height (AOD)**	- 132m
Date & time of photograph	- 29/06/2021 @ ?10:26	**Distance from site**	- 225m
OS grid reference	- 546190, 228551		

FIGURE 6.5

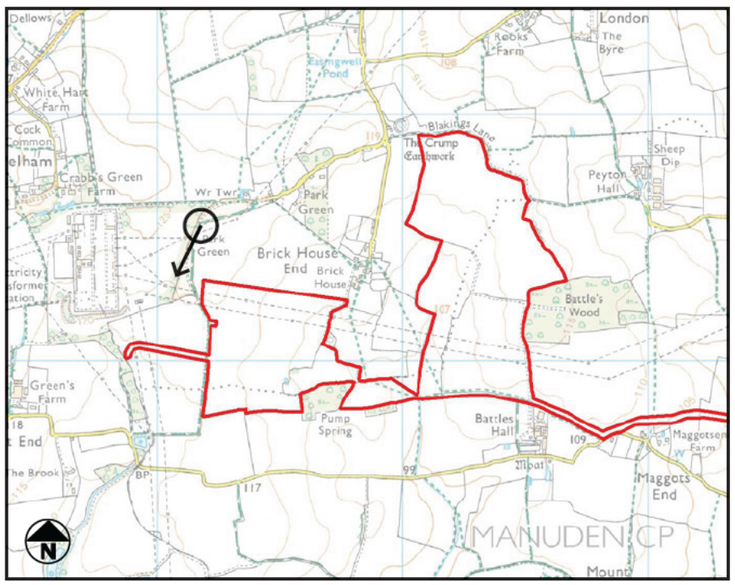
Context Baseline Views

DRWG No: P20-1300_07 REV: E

Date: 23/01/2023

CONTEXT BASELINE VIEWPOINT 3B

Public Bridleway 57-5, south west of the site at Park Green, looking south to south east.



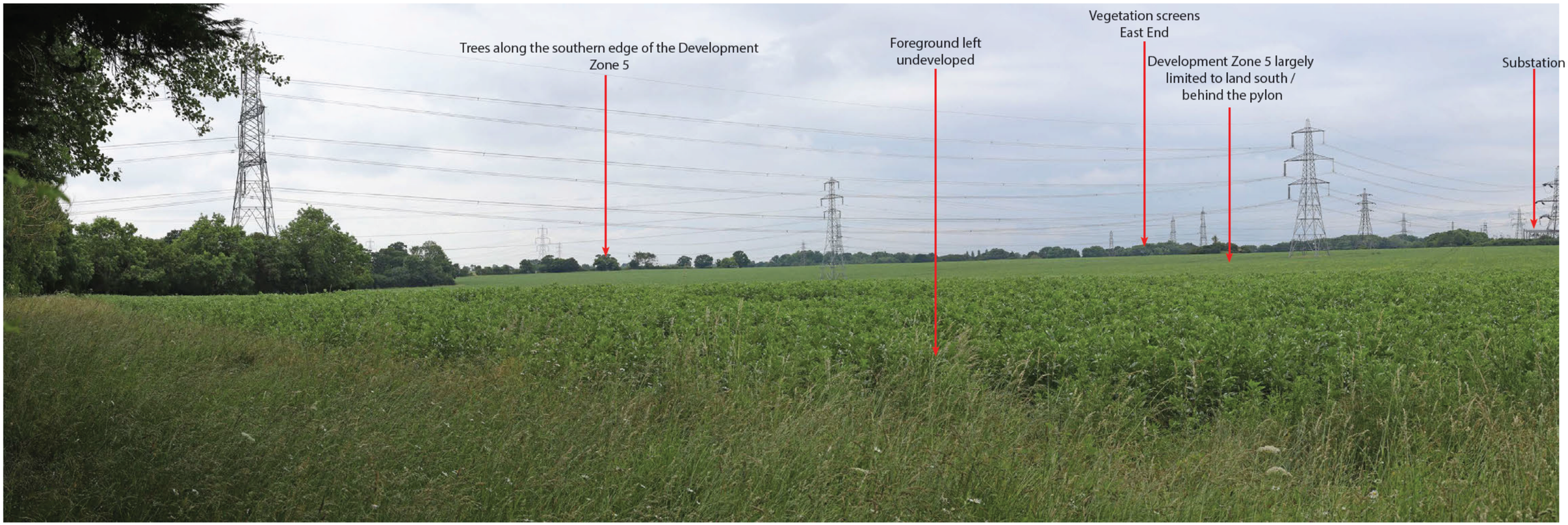
Camera make & model	- Canon EOS 5D, FFS	**Viewpoint height (AOD)**	- 132m
Date & time of photograph	- 29/06/2021 @ ?10:26	**Distance from site**	- 225m
OS grid reference	- 546190, 228551		

FIGURE 6.5

Context Baseline Views

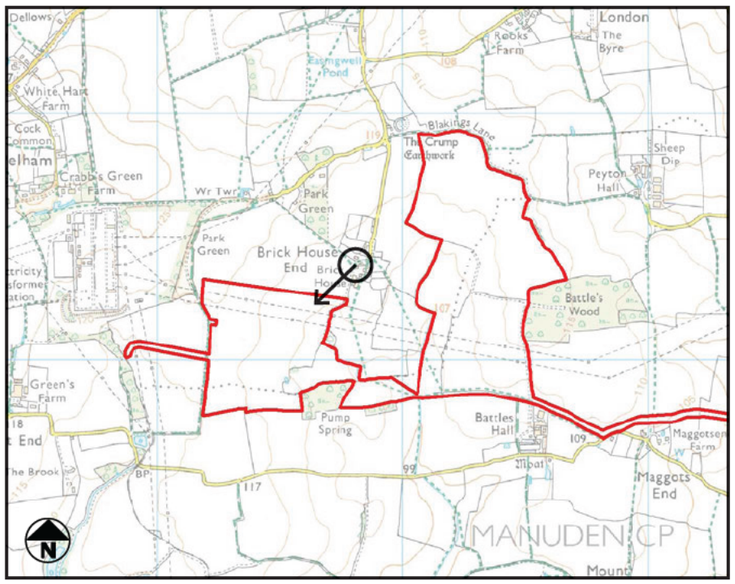
DRWG No: P20-1300_07 REV: E

Date: 23/01/2023



CONTEXT BASELINE VIEWPOINT 4

Public Footpath 52-5, near north western edge of Brick House End, looking south west.



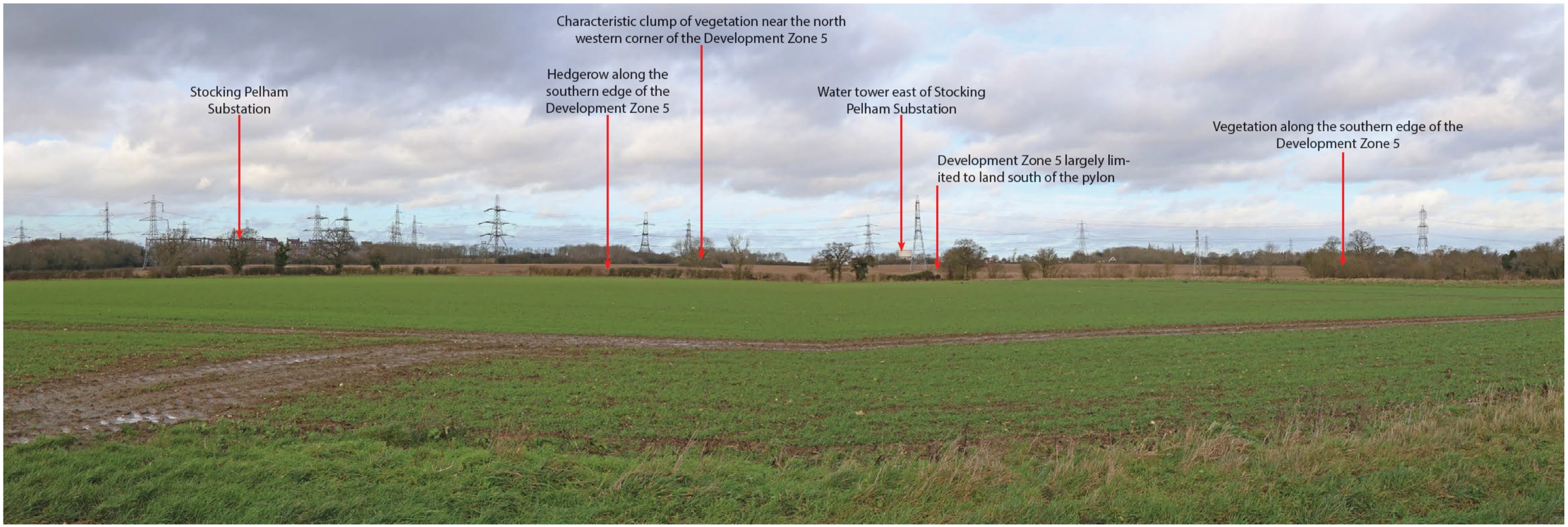
Camera make & model	– Canon EOS 5D, FFS	**Viewpoint height (AOD)**	– 112m
Date & time of photograph	– 29/06/2021 @ 10:44	**Distance from site**	– 140m
OS grid reference	– 546802, 228384		

FIGURE 6.5

Context Baseline Views

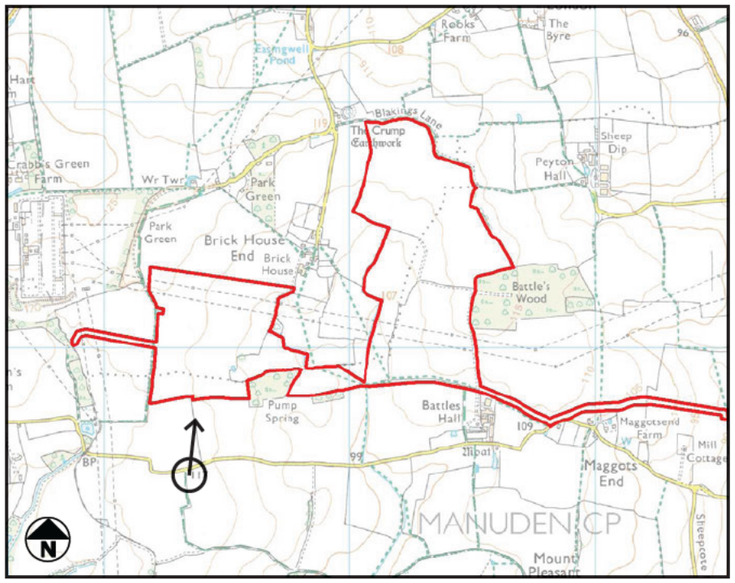
DRWG No: P20-1300_07 REV: E

Date: 23/01/2023



CONTEXT BASELINE VIEWPOINT 5A

Maggots End Road / Public Bridleway 39_11 looking north to east

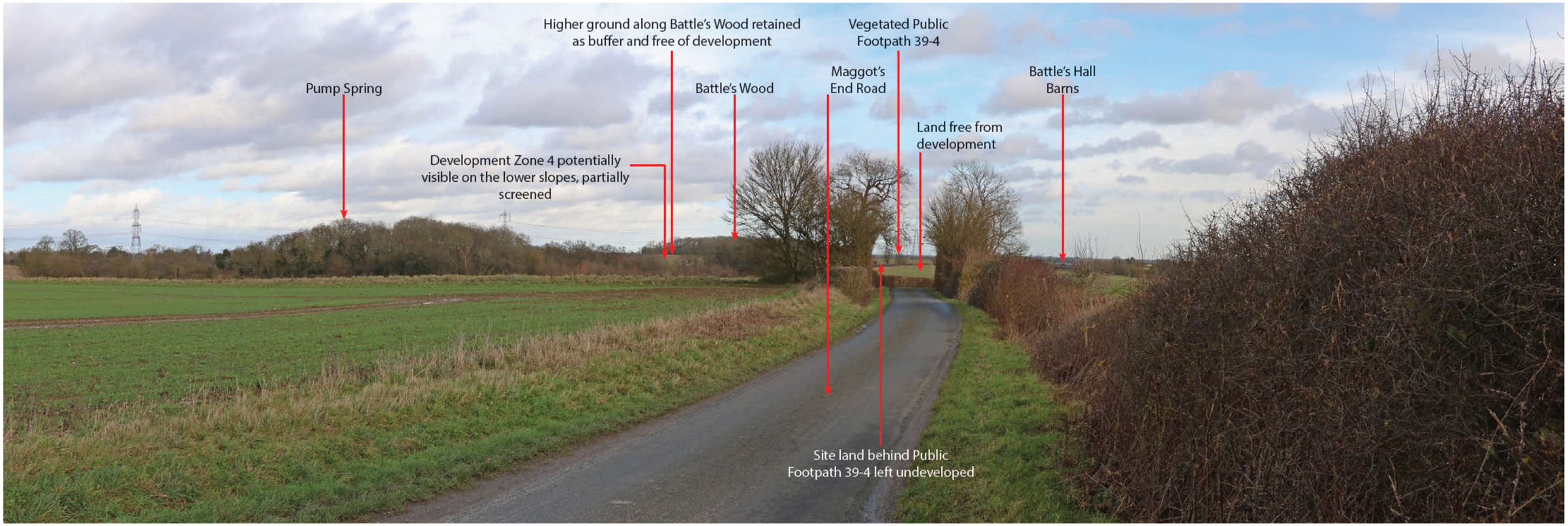


Camera make & model	- Canon EOS 5D, FFS	**Viewpoint height (AOD)**	- 118m
Date & time of photograph	- 21/01/2021 @ 14:11	**Distance from site**	- 285m
OS grid reference	- 546337, 227504		

FIGURE 6.5
Context Baseline Views

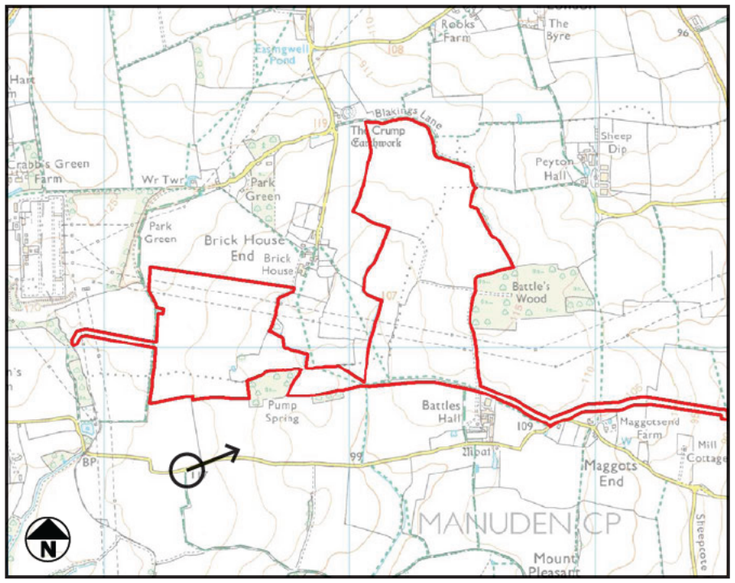
DRWG No: P20-1300_07 REV: E

Date: 23/01/2023



CONTEXT BASELINE VIEWPOINT 5B

Maggots End Road / Public Bridleway 39_11 looking north to east

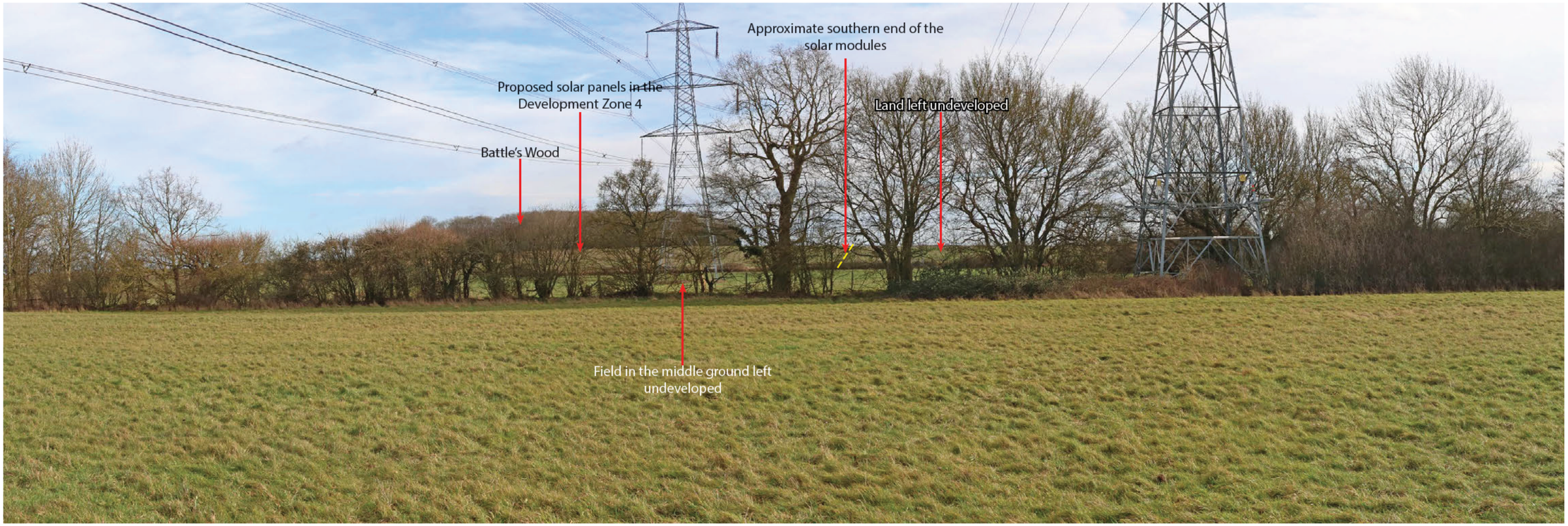


Camera make & model	- Canon EOS 5D, FFS	**Viewpoint height (AOD)**	- 118m
Date & time of photograph	- 21/01/2021 @ 14:11	**Distance from site**	- 285m
OS grid reference	- 546337, 227504		

FIGURE 6.5
Context Baseline Views

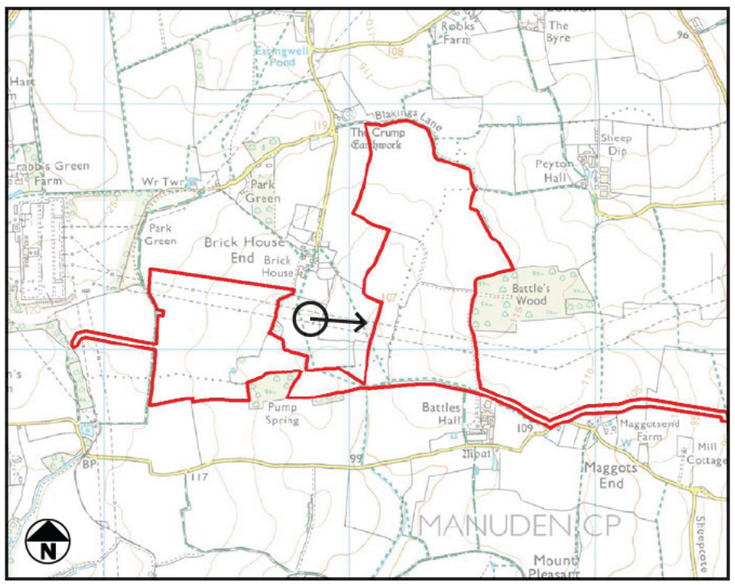
DRWG No: P20-1300_07 REV: E

Date: 23/01/2023



CONTEXT BASELINE VIEWPOINT 6A

Public Footpath 5_15, south of Brick House End, looking east.



Camera make & model	- Canon EOS 5D, FFS	**Viewpoint height (AOD)**	- 109m
Date & time of photograph	- 21/01/2021 @ 13:35	**Distance from site**	- 125m
OS grid reference	- 546839, 228123		

FIGURE 6.5

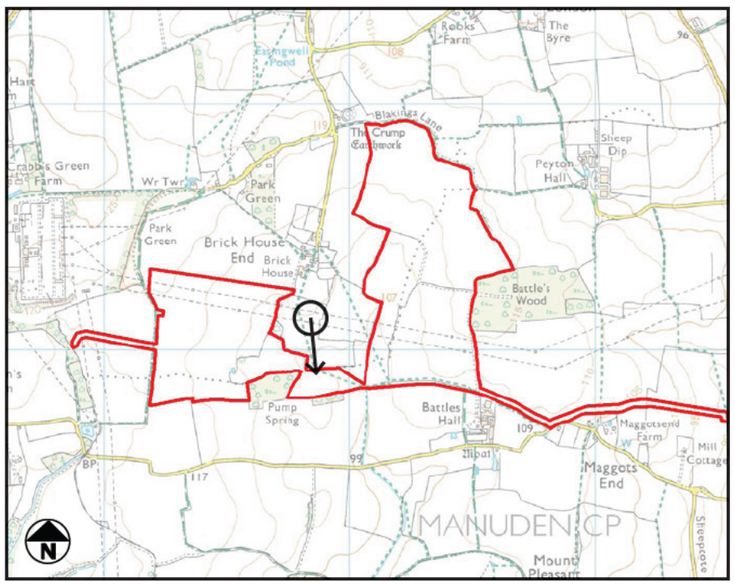
Context Baseline Views

DRWG No: P20-1300_07 REV: E

Date: 23/01/2023

CONTEXT BASELINE VIEWPOINT 6B

Public Footpath 5_15, south of Brick House End, looking south.



Camera make & model	- Canon EOS 5D, FFS	**Viewpoint height (AOD)**	- 109m
Date & time of photograph	- 21/01/2021 @ 13:35	**Distance from site**	- 125m
OS grid reference	- 546839, 228123		

FIGURE 6.5

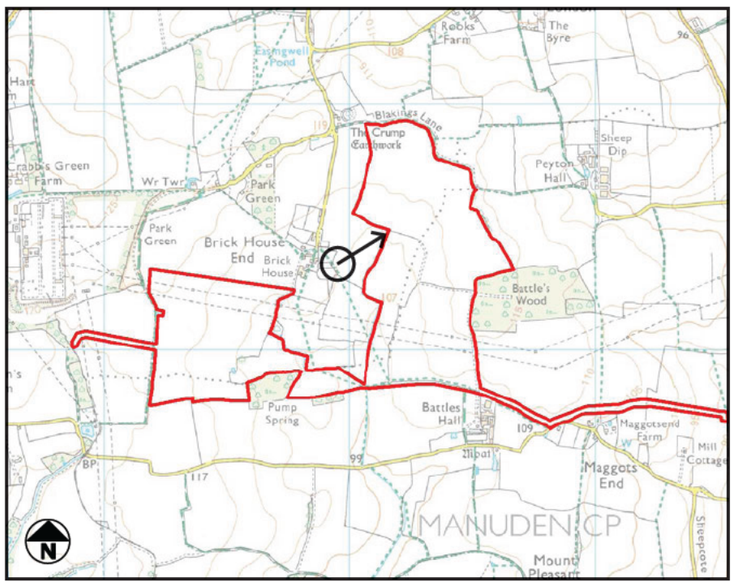
Context Baseline Views

DRWG No: P20-1300_07 REV: E

Date: 23/01/2023

CONTEXT BASELINE VIEWPOINT 7A

Public Footpath 5_14, eastern edge of Brick House End, looking north to south east.

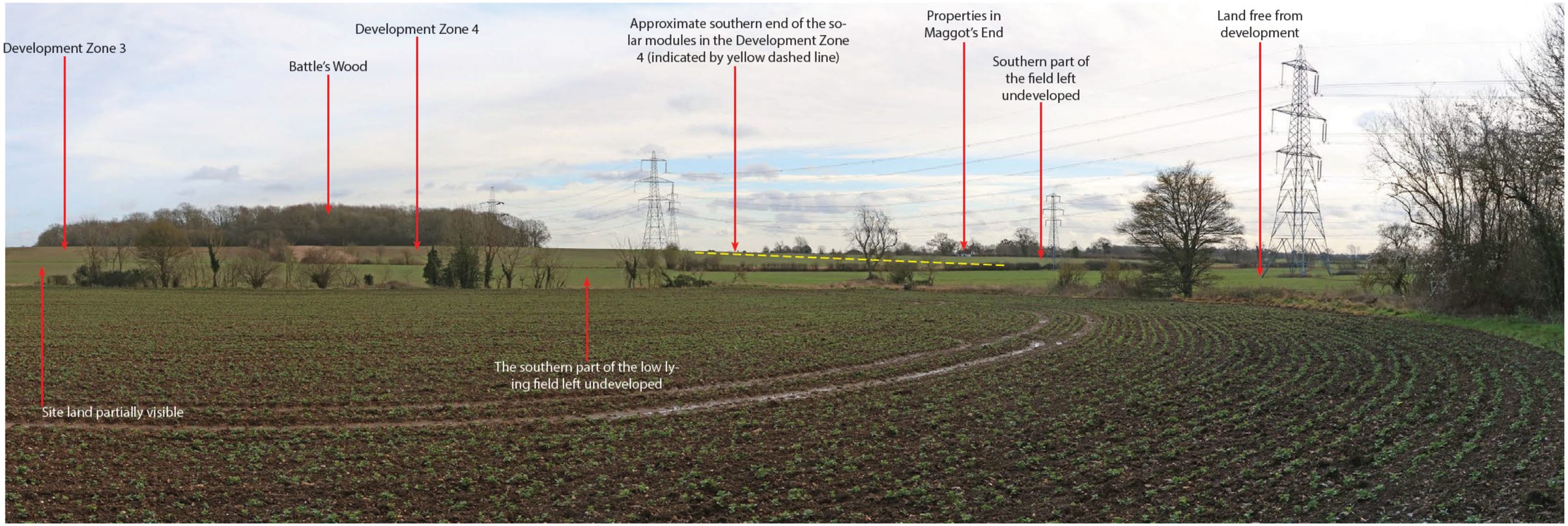


Camera make & model	– Canon EOS 5D, FFS	**Viewpoint height (AOD)**	– 115m
Date & time of photograph	– 21/01/2021 @ 13:24	**Distance from site**	– 140m
OS grid reference	– 546941, 228356		

FIGURE 6.5
Context Baseline Views

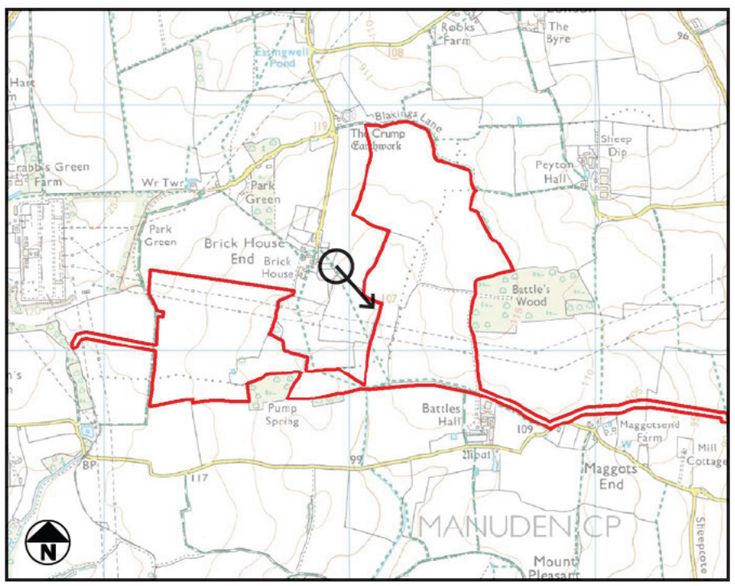
DRWG No: P20-1300_07 REV: E

Date: 23/01/2023



CONTEXT BASELINE VIEWPOINT 7B

Public Footpath 5_14, eastern edge of Brick House End, looking north to south east.



Camera make & model	– Canon EOS 5D, FFS	**Viewpoint height (AOD)**	– 115m
Date & time of photograph	– 21/01/2021 @ 13:24	**Distance from site**	– 140m
OS grid reference	– 546941, 228356		

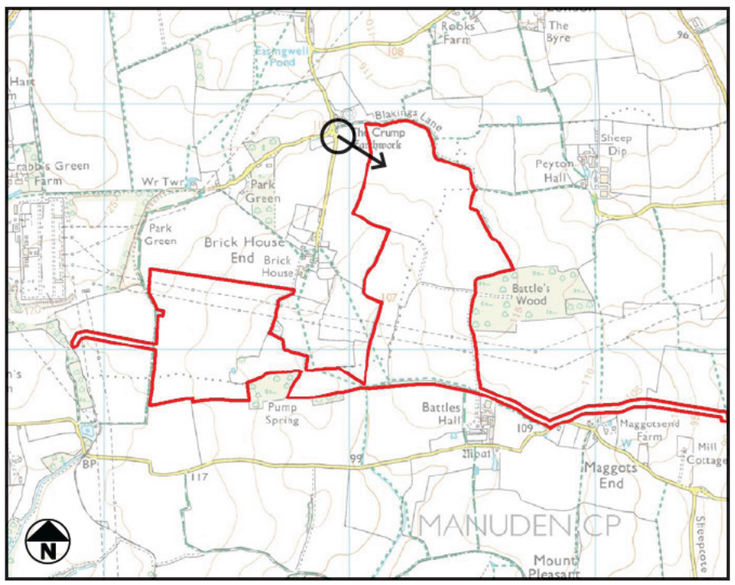
FIGURE 6.5
Context Baseline Views

DRWG No: P20-1300_07 REV: E

Date: 23/01/2023

CONTEXT BASELINE VIEWPOINT 8

Minor road leading south to Brick House End, near The Crump, looking south east to south.



Camera make & model	– Canon EOS 5D, FFS	**Viewpoint height (AOD)**	– 120m
Date & time of photograph	– 21/01/2021 @ 14:43	**Distance from site**	– 120m
OS grid reference	– 546950, 228874		

FIGURE 6.5

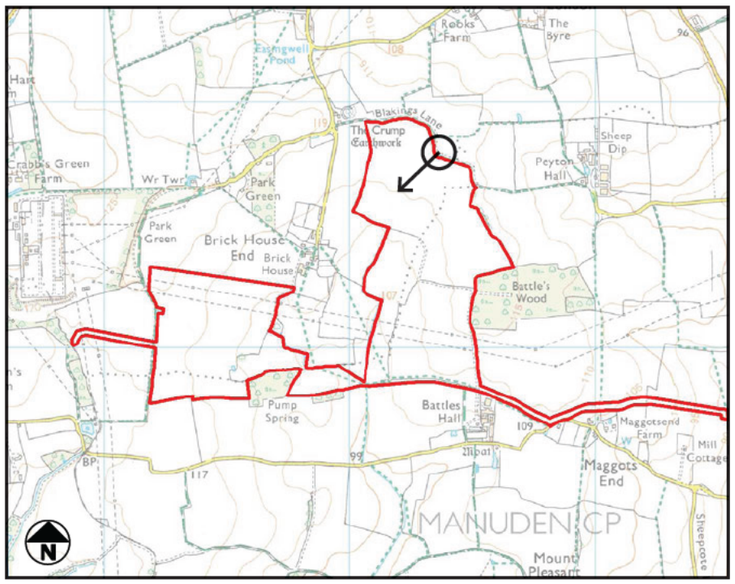
Context Baseline Views

DRWG No: P20-1300_07 REV: E

Date: 23/01/2023

CONTEXT BASELINE VIEWPOINT 9

Blaking's Lane, Public Footpath 39_3, looking south west.



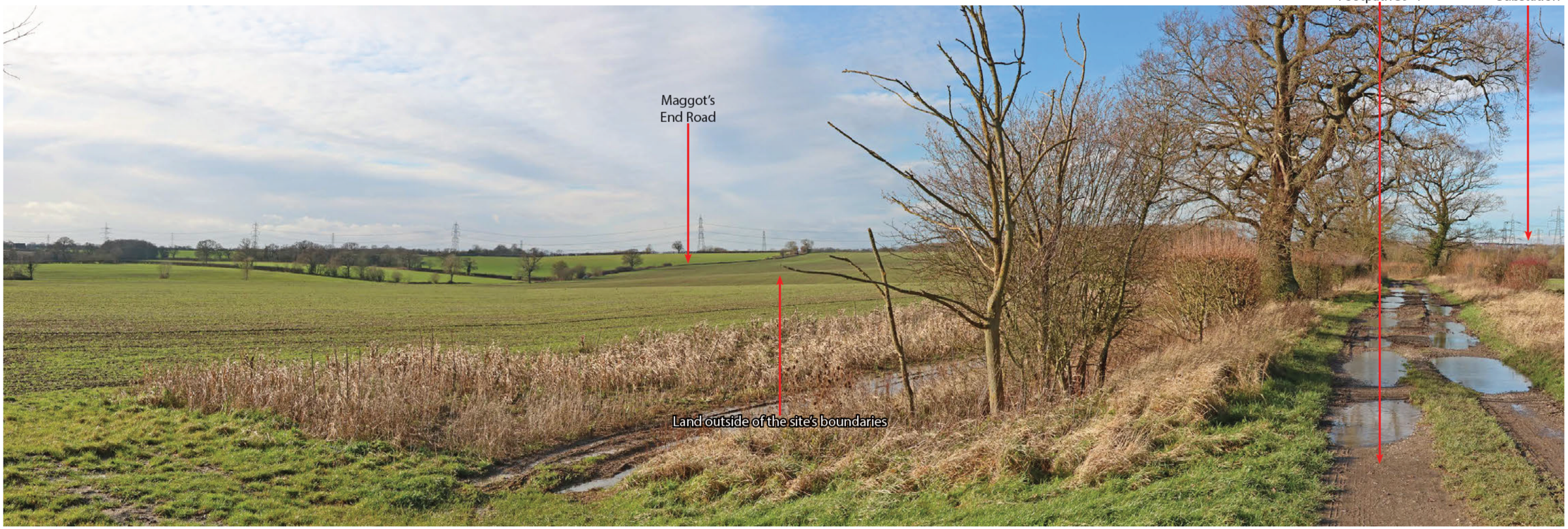
Camera make & model	– Canon EOS 5D, FFS	**Viewpoint height (AOD)**	– 129m
Date & time of photograph	– 21/01/2021 @ 14:53	**Distance from site**	– 10m
OS grid reference	– 547358, 228788		

FIGURE 6.5

Context Baseline Views

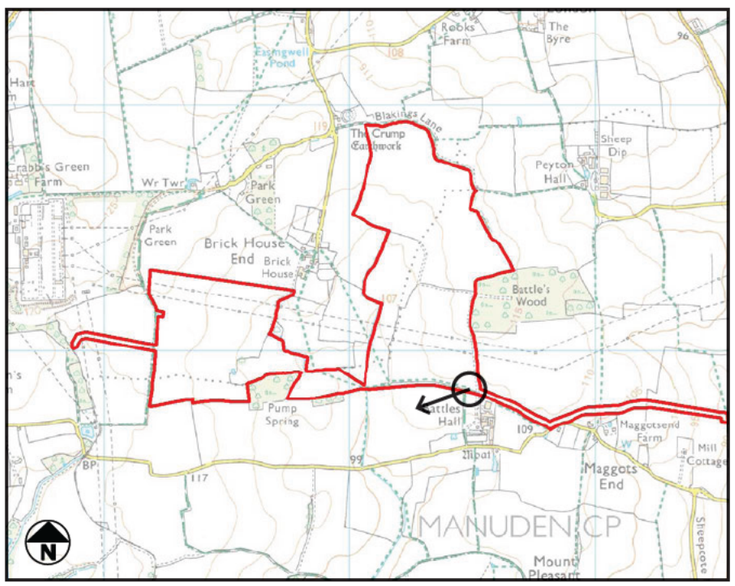
DRWG No: P20-1300_07 REV: E

Date: 23/01/2023



CONTEXT BASELINE VIEWPOINT 10A

Public Footpath 39_4, near Battle's Hall, looking south west to north west.



Camera make & model	- Canon EOS 5D, FFS	**Viewpoint height (AOD)**	- 109m
Date & time of photograph	- 21/01/2021 @ 12:58	**Distance from site**	- 0m
OS grid reference	- 547476, 227842		

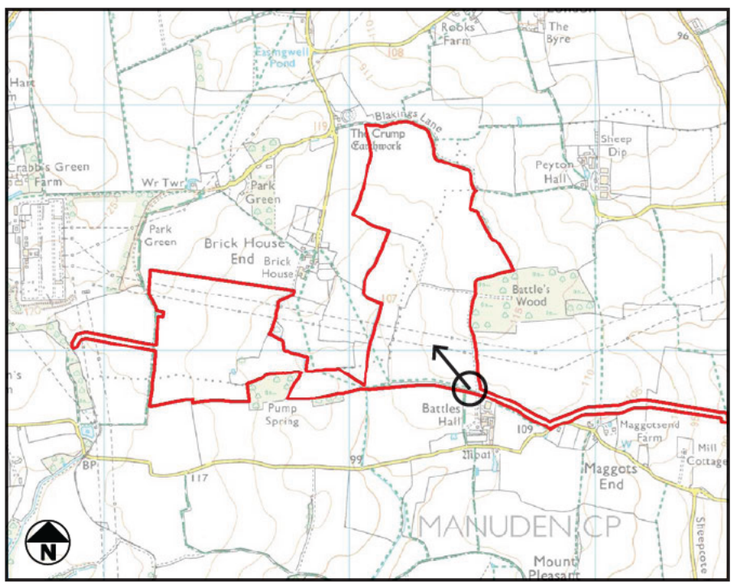
FIGURE 6.5
Context Baseline Views

DRWG No: P20-1300_07 REV: E

Date: 23/01/2023

CONTEXT BASELINE VIEWPOINT 10B

Public Footpath 39_4, near Battle's Hall, looking south west to north west.



Camera make & model	- Canon EOS 5D, FFS	**Viewpoint height (AOD)**	- 109m
Date & time of photograph	- 21/01/2021 @ 12:58	**Distance from site**	- 0m
OS grid reference	- 547476, 227842		

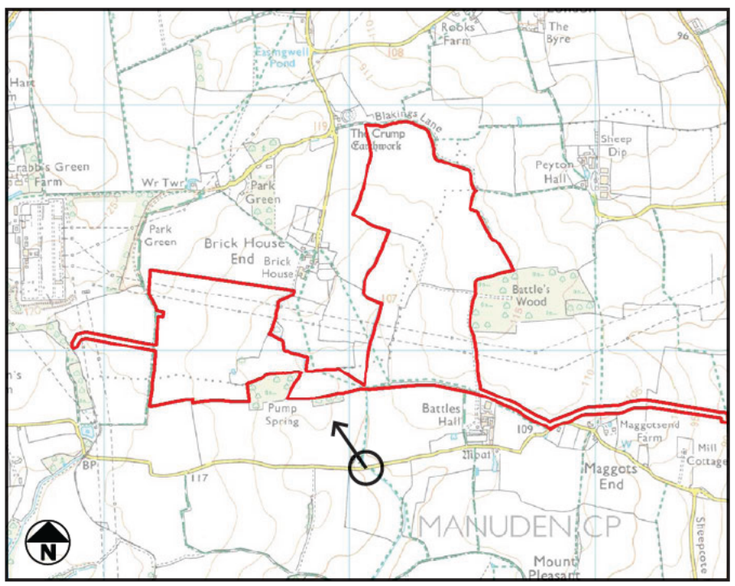
FIGURE 6.5
Context Baseline Views

DRWG No: P20-1300_07 REV: E

Date: 23/01/2023

CONTEXT BASELINE VIEWPOINT 11A

Maggots End Road / Public Footpath 39_7 looking north west to south east.

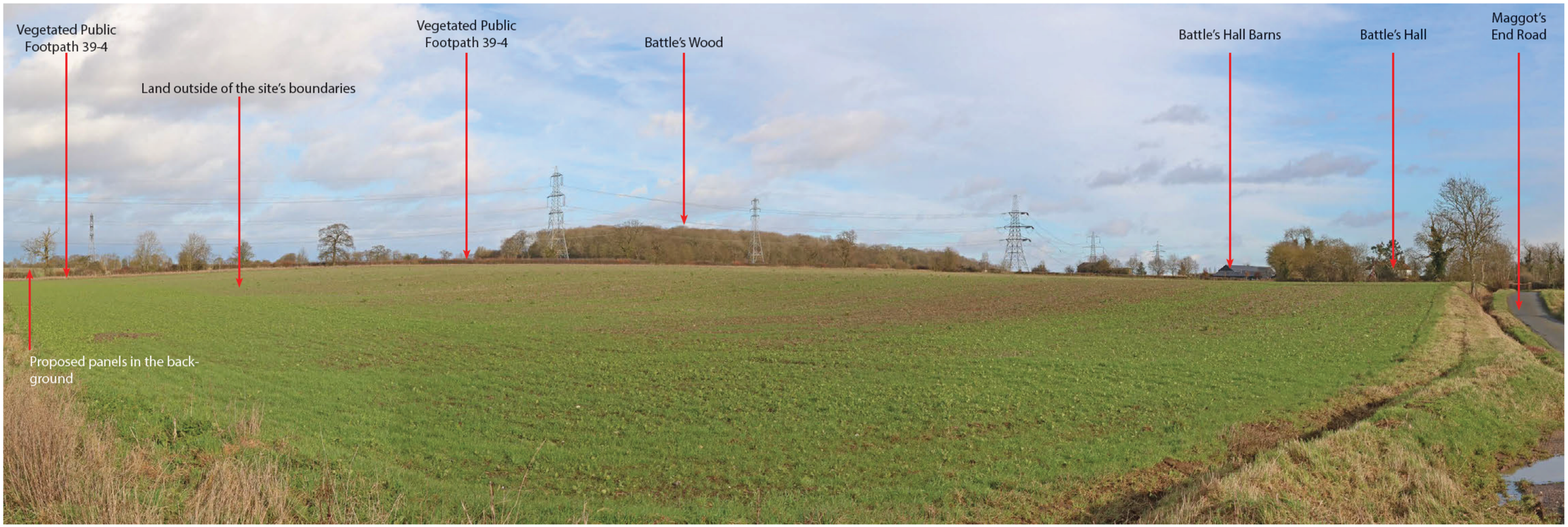


Camera make & model	- Canon EOS 5D, FFS	**Viewpoint height (AOD)**	- 99m
Date & time of photograph	- 21/01/2021 @ 13:59	**Distance from site**	- 315m
OS grid reference	- 547057, 227526		

FIGURE 6.5
Context Baseline Views

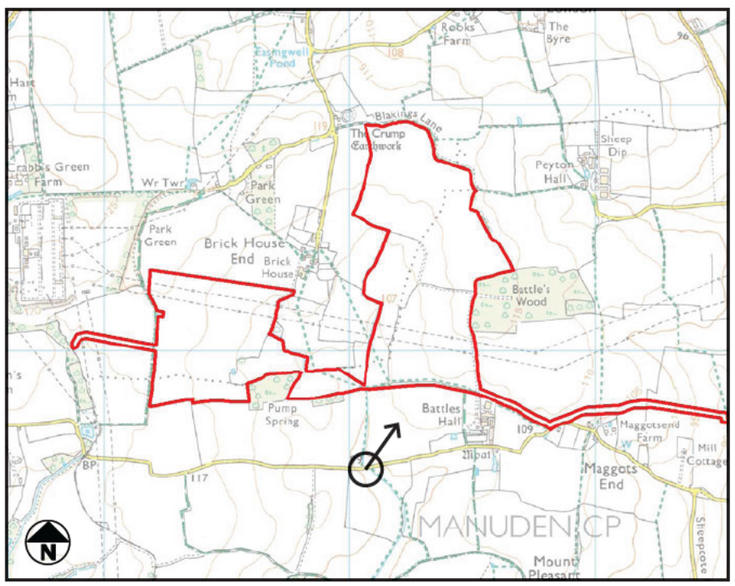
DRWG No: P20-1300_07 REV: E

Date: 23/01/2023



CONTEXT BASELINE VIEWPOINT 11B

Maggots End Road / Public Footpath 39_7 looking north west to south east.



Camera make & model	- Canon EOS 5D, FFS	**Viewpoint height (AOD)**	- 99m
Date & time of photograph	- 21/01/2021 @ 13:59	**Distance from site**	- 315m
OS grid reference	- 547057, 227526		

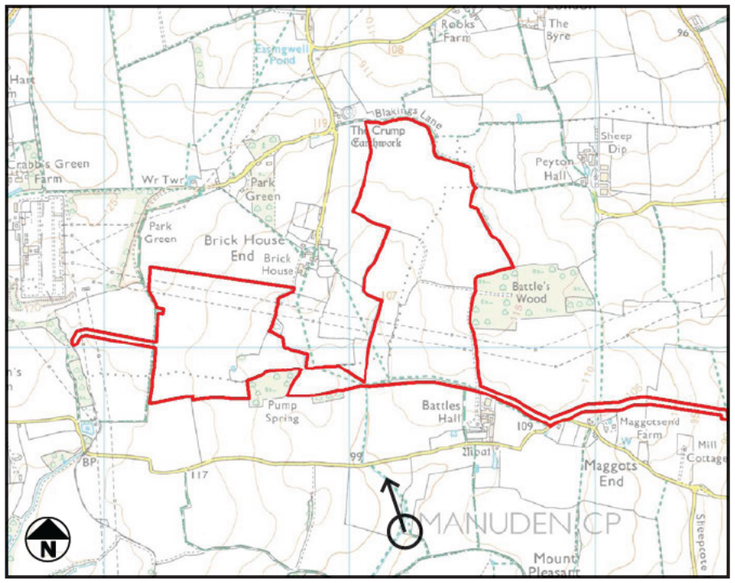
FIGURE 6.5
Context Baseline Views

DRWG No: P20-1300_07 REV: E

Date: 23/01/2023

CONTEXT BASELINE VIEWPOINT 12

Public Footpath 39_8, south of Maggots End Road, looking north.



Camera make & model	– Canon EOS 5D, FFS	**Viewpoint height (AOD)**	– 97m
Date & time of photograph	– 21/01/2021 @ 12:20	**Distance from site**	– 590m
OS grid reference	– 547213, 227265		

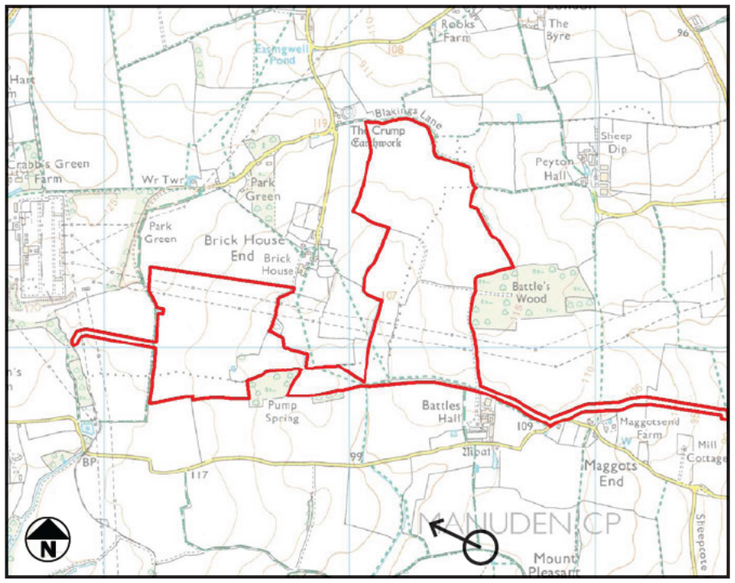
FIGURE 6.5
Context Baseline Views

DRWG No: P20-1300_07 REV: E

Date: 23/01/2023

CONTEXT BASELINE VIEWPOINT 13A

Maggots End Road / Public Bridleway 39_12, south of Battle's Hall, looking north west to north east

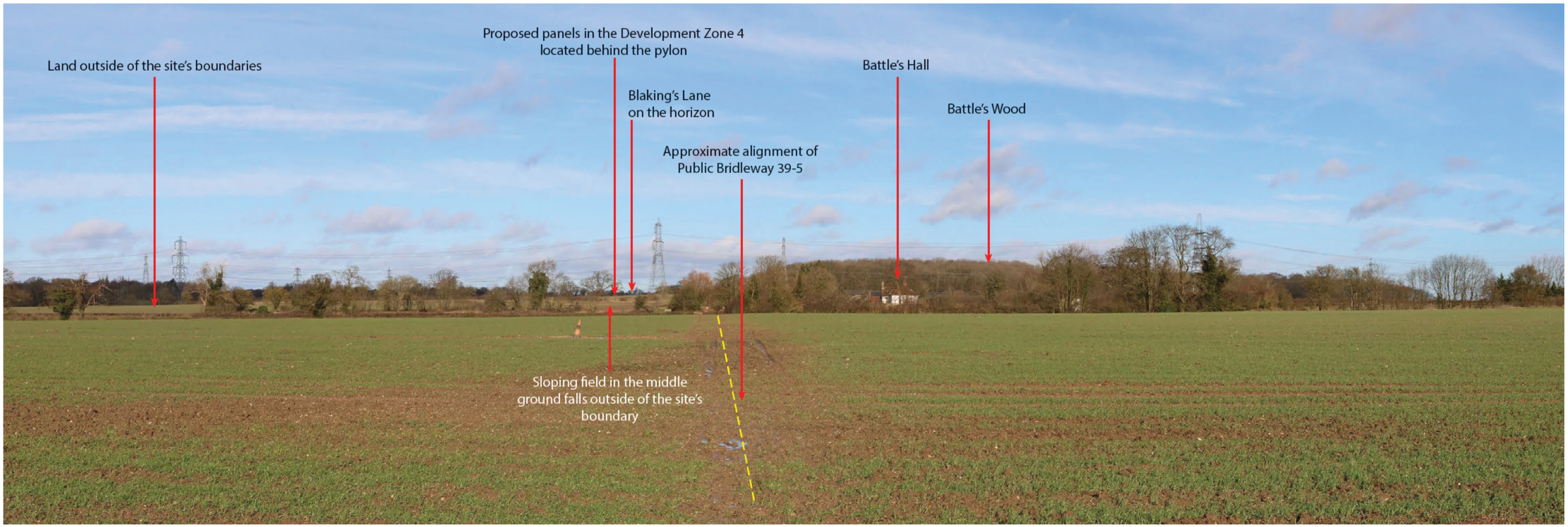


Camera make & model	- Canon EOS 5D, FFS	**Viewpoint height (AOD)**	- 104m
Date & time of photograph	- 21/01/2021 @ 12:46	**Distance from site**	- 570m
OS grid reference	- 547530, 227188		

FIGURE 6.5
Context Baseline Views

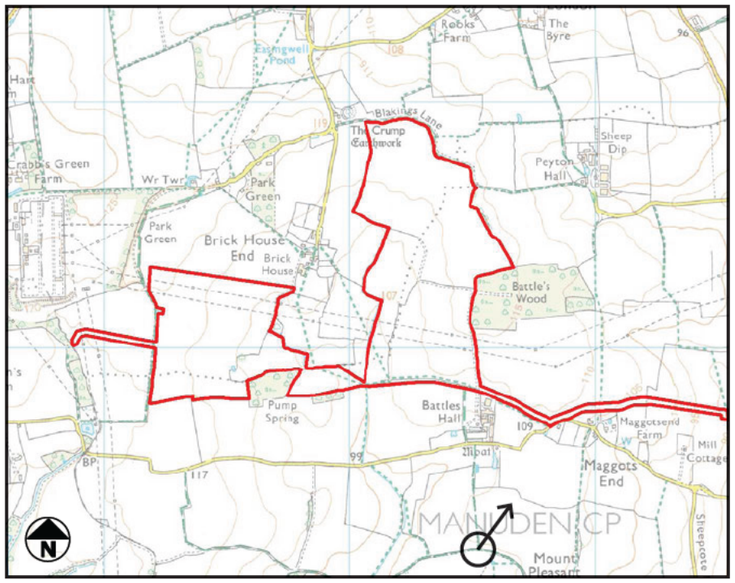
DRWG No: P20-1300_07 REV: E

Date: 23/01/2023



CONTEXT BASELINE VIEWPOINT 13B

Maggots End Road / Public Bridleway 39_12, south of Battle's Hall, looking north west to north east



Camera make & model	- Canon EOS 5D, FFS	**Viewpoint height (AOD)**	- 104m
Date & time of photograph	- 21/01/2021 @ 12:46	**Distance from site**	- 570m
OS grid reference	- 547530, 227188		

FIGURE 6.5

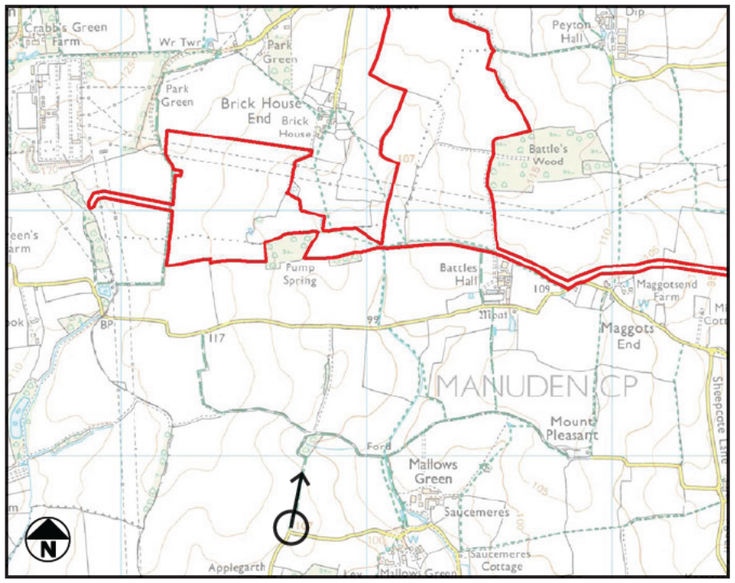
Context Baseline Views

DRWG No: P20-1300_07 REV: E

Date: 23/01/2023

CONTEXT BASELINE VIEWPOINT 14

Minor road leading to Mallows Green/ Public Bridleway 39_12, looking north.



Camera make & model	- Canon EOS 5D, FFS	**Viewpoint height (AOD)**	- 108m
Date & time of photograph	- 21/01/2021 @ 14:26	**Distance from site**	- 1080m
OS grid reference	- 546693, 226721		

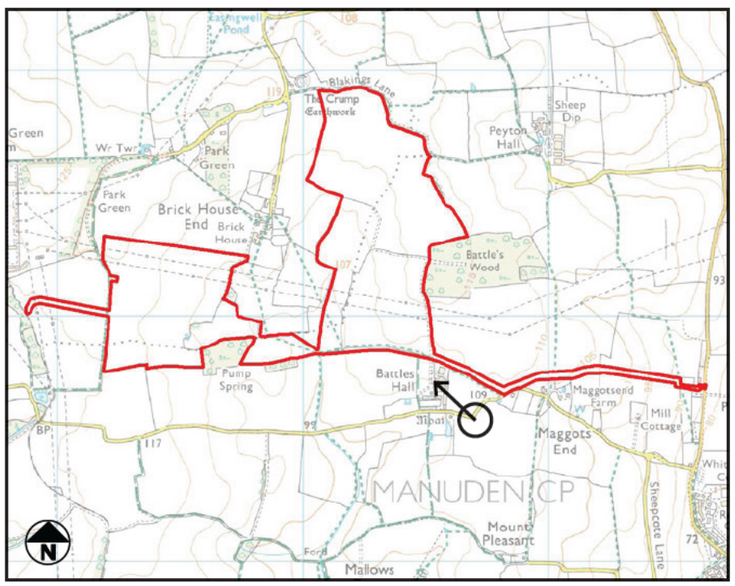
FIGURE 6.5
Context Baseline Views

DRWG No: P20-1300_07 REV: E

Date: 23/01/2023

CONTEXT BASELINE VIEWPOINT 15

Maggot's End, Maggot's End Road, looking north west.



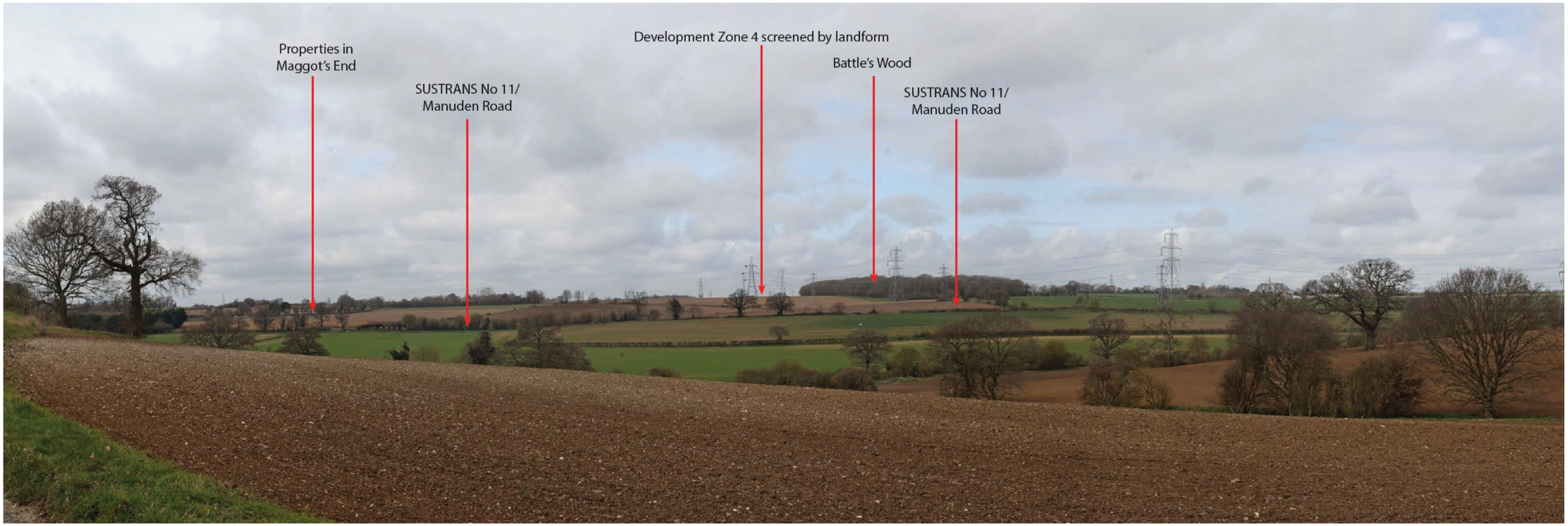
Camera make & model	- Canon EOS 5D, FFS	**Viewpoint height (AOD)**	- 109m
Date & time of photograph	- 25/03/2021 @ 13:08	**Distance from site**	- 130m
OS grid reference	- 547703, 227594		

FIGURE 6.5

Context Baseline Views

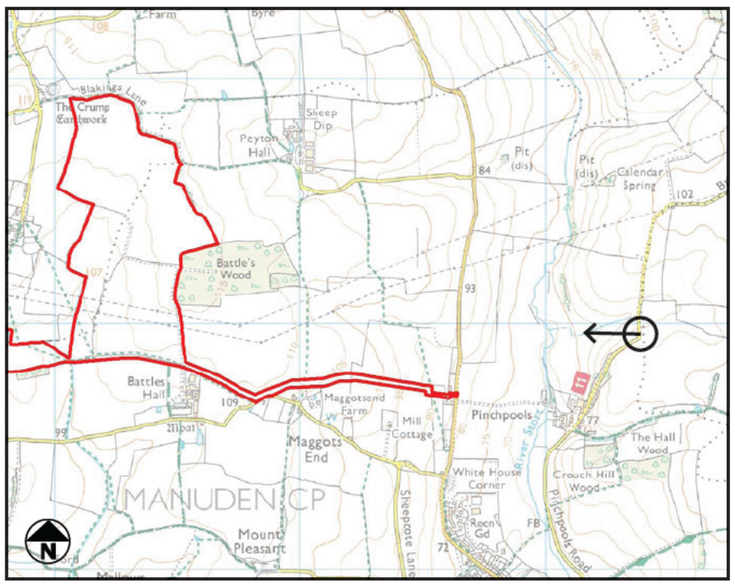
DRWG No: P20-1300_07 REV: E

Date: 23/01/2023



CONTEXT BASELINE VIEWPOINT 16

SUSTRANS No.11 / Brixton Lane, looking west.



Camera make & model	- Canon EOS 5D, FFS	**Viewpoint height (AOD)**	- 92m
Date & time of photograph	- 25/03/2021 @ 12:44	**Distance from site**	- 785m
OS grid reference	- 549387, 227952		

FIGURE 6.5

Context Baseline Views

DRWG No: P20-1300_07 REV: E

Date: 23/01/2023

Figure 6.6 Photomontages.

Camera make & model	Ca o EOS 6D Ma k	**V ewpo nt he ght AOD)**	117m	**V sual sat on Type**	ype 1
Lens make & focal length	Ca o EF 50mm /1 4 USM	**D stance from s te**	296m	**Hor zontal F eld of V ew**	75°
Date & t me of photograph	29/06/2021 @ 09 44	**Pro ect on**	Cy d ca	**He ght of camera AGL**	1 5m
OS gr d reference	546327 227511	**Enlargement / Sheet S ze**	100% @ A1	**Page s ze / mage s ze mm)**	841 x 297 / 820 x 249

DRWG NO: 09 | REV:A DATE: 15/12/2022

TO BE VIEWED AT A COMFORTABLE ARM'S LENGTH

VIEWPOINT 5 - EXISTING VIEW CONTEXT PANORAMA

View looking west from public footpath adjacent to the southern site boundary.

FIGURE X.X | PHOTOMONTAGES

Camera make & model	Ca o EOS 6D Ma k	V ewpo nt he ght AOD)	117m	V sual sat on Type	ype 3
Lens make & focal length	Ca o EF 50mm /1 4 USM	D stance from s te	296m	Hor zontal F eld of V ew	39 6°
Date & t me of photograph	29/06/2021 @ 09 44	Pro ect on	P a a	He ght of camera AGL	1 5m
OS gr d reference	546327 227511	Enlargement / Sheet S ze	100% @ A3	Page s ze / mage s ze mm)	420 x 297 / 390 x 260

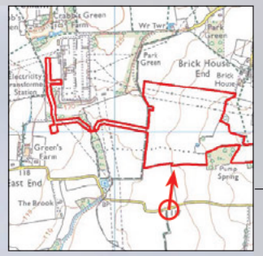
VIEWPOINT 5 - EXISTING VIEW

Maggots End Road / Public Bridleway 39_11 looking north

DRWG NO: 09 | REV:A DATE: 15/12/2022

TO BE VIEWED AT A COMFORTABLE ARM'S LENGTH

FIGURE 6.6 | PHOTOMONTAGES



Camera make & model	Ca o EOS 6D Ma k	V ewpo nt he ght AOD)	117m	V sual sat on Type	ype 3
Lens make & focal length	Ca o EF 50mm /1 4 USM	D stance from s te	296m	Hor zontal F eld of V ew	39 6°
Date & t me of photograph	29/06/2021 @ 09 44	Pro ect on	P a a	He ght of camera AGL	1 5m
OS gr d reference	546327 227511	Enlargement / Sheet S ze	100% @ A3	Page s ze / mage s ze mm)	420 x 297 / 390 x 260

VIEWPOINT 5 - PHOTOMONTAGE VIEW (YEAR 1)

Maggots End Road / Public Bridleway 39_11 looking north

DRWG NO: 09 | REV:A DATE: 15/12/2022

TO BE VIEWED AT A COMFORTABLE ARM'S LENGTH

FIGURE 6.6 | PHOTOMONTAGES

Camera make & model	Ca o EOS 6D Ma k	V ewpo nt he ght AOD)	117m	V sual sat on Type	ype 3
Lens make & focal length	Ca o EF 50mm /1 4 USM	D stance from s te	296m	Hor zontal F eld of V ew	39 6°
Date & t me of photograph	29/06/2021 @ 09 44	Pro ect on	P a a	He ght of camera AGL	1 5m
OS gr d reference	546327 227511	Enlargement / Sheet S ze	100% @ A3	Page s ze / mage s ze mm)	420 x 297 / 390 x 260

VIEWPOINT 5 - PHOTOMONTAGE VIEW (YEAR 5)

Maggots End Road / Public Bridleway 39_11 looking north

DRWG NO: 09 | REV:A DATE: 15/12/2022

TO BE VIEWED AT A COMFORTABLE ARM'S LENGTH

FIGURE 6.6 | PHOTOMONTAGES

Camera make & model	Ca o EOS 750D	**V ewpo nt he ght AOD)**	120m	**V sual sat on Type**	ype 1
Lens make & focal length	Ca o EF 50mm f/1 4 USM	**D stance from s te**	119m	**Hor zontal F eld of V ew**	75°
Date & t me of photograph	21/01/2021 @ 14 43	**Pro ect on**	Cy d ca	**He ght of camera AGL**	1 5m
OS gr d reference	546950 228880	**Enlargement / Sheet S ze**	100% @ A1	**Page s ze / mage s ze mm)**	841 x 297 / 820 x 240

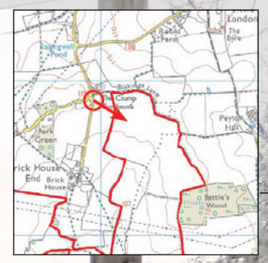
DRWG NO: 09 | REV:A DATE: 15/12/2022

TO BE VIEWED AT A COMFORTABLE ARM'S LENGTH

VIEWPOINT 8 - EXISTING VIEW CONTEXT PANORAMA

Minor road leading south to Brick House End,
near The Crump, looking south east.

FIGURE X.X | PHOTOMONTAGES



Camera make & model	Ca o EOS 750D	V ewpo nt he ght AOD)	120m	V sual sat on Type	ype 3
Lens make & focal length	Ca o EF 50mm /1 4 USM	D stance from s te	119m	Hor zontal F eld of V ew	39 6°
Date & t me of photograph	21/01/2021 @ 14 43	Pro ect on	P a a	He ght of camera AGL	1 5m
OS gr d reference	546950 228880	Enlargement / Sheet S ze	100% @ A3	Page s ze / mage s ze mm)	420 x 297 / 390 x 260

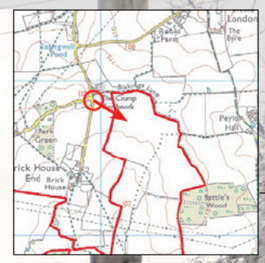
DRWG NO: 09 | REV:A DATE: 15/12/2022

TO BE VIEWED AT A COMFORTABLE ARM'S LENGTH

VIEWPOINT 8 - EXISTING VIEW

Minor road leading south to Brick House End, near The Crump, looking south east.

FIGURE 6.6 | PHOTOMONTAGES



Camera make & model	Ca o EOS 750D	V ewpo nt he ght AOD)	120m	V sual sat on Type	ype 3
Lens make & focal length	Ca o EF 50mm /1 4 USM	D stance from s te	119m	Hor zontal F eld of V ew	39 6°
Date & t me of photograph	21/01/2021 @ 14 43	Pro ect on	P a a	He ght of camera AGL	1 5m
OS gr d reference	546950 228880	Enlargement / Sheet S ze	100% @ A3	Page s ze / mage s ze mm)	420 x 297 / 390 x 260

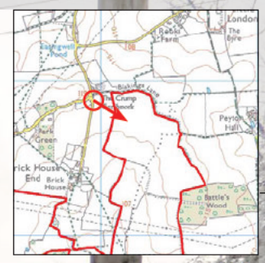
VIEWPOINT 8 - PHOTOMONTAGE VIEW (YEAR 1)

Minor road leading south to Brick House End, near The Crump, looking south east.

FIGURE 6.6 | PHOTOMONTAGES

DRWG NO: 09 | REV:A DATE: 15/12/2022

TO BE VIEWED AT A COMFORTABLE ARM'S LENGTH



Camera make & model	Ca o EOS 750D	V ewpo nt he ght AOD)	120m	V sual sat on Type	ype 3
Lens make & focal length	Ca o EF 50mm /1 4 USM	D stance from s te	119m	Hor zontal F eld of V ew	39 6°
Date & t me of photograph	21/01/2021 @ 14 43	Pro ect on	P a a	He ght of camera AGL	1 5m
OS gr d reference	546950 228880	Enlargement / Sheet S ze	100% @ A3	Page s ze / mage s ze mm)	420 x 297 / 390 x 260

VIEWPOINT 8 - PHOTOMONTAGE VIEW (YEAR 5)

Minor road leading south to Brick House End,
near The Crump, looking south east.

FIGURE 6.6 | PHOTOMONTAGES

DRWG NO: 09 | REV:A DATE: 15/12/2022

TO BE VIEWED AT A COMFORTABLE ARM'S LENGTH

Camera make & model	Ca o EOS 750D	V ewpo nt he ght AOD)	104m	V sual sat on Type	ype 1
Lens make & focal length	Ca o EF 50mm /1 4 USM	D stance from s te	440m	Hor zontal F eld of V ew	75°
Date & t me of photograph	21/01/2021 @ 12 47	Pro ect on	Cy d ca	He ght of camera AGL	1 5m
OS gr d reference	547529 227194	Enlargement / Sheet S ze	100% @ A1	Page s ze / mage s ze mm)	841 x 297 / 820 x 240

DRWG NO: 09 | REV:A DATE: 15/12/2022

TO BE VIEWED AT A COMFORTABLE ARM'S LENGTH

VIEWPOINT 13 - EXISTING VIEW CONTEXT PANORAMA

Maggots End Road / Public Bridleway 39_12,
south of Battle's Hall, looking north

FIGURE X.X | PHOTOMONTAGES

Camera make & model	Ca o EOS 750D	V ewpo nt he ght AOD)	104m	V sual sat on Type	ype 3
Lens make & focal length	Ca o EF 50mm /1 4 USM	D stance from s te	440m	Hor zontal F eld of V ew	39 6°
Date & t me of photograph	21/01/2021 @ 12 47	Pro ect on	P a a	He ght of camera AGL	1 5m
OS gr d reference	547529 227194	Enlargement / Sheet S ze	100% @ A3	Page s ze / mage s ze mm)	420 x 297 / 390 x 260

VIEWPOINT 13 - EXISITING VIEW

Maggots End Road / Public Bridleway 39_12,
south of Battle's Hall, looking north

FIGURE 6.6 | PHOTOMONTAGES

DRWG NO: 09 | REV:A DATE: 15/12/2022

TO BE VIEWED AT A COMFORTABLE ARM'S LENGTH

Camera make & model	Ca o EOS 750D	V ewpo nt he ght AOD)	104m	V sual sat on Type	ype 3
Lens make & focal length	Ca o EF 50mm /1 4 USM	D stance from s te	440m	Hor zontal F eld of V ew	39 6°
Date & t me of photograph	21/01/2021 @ 12 47	Pro ect on	P a a	He ght of camera AGL	1 5m
OS gr d reference	547529 227194	Enlargement / Sheet S ze	100% @ A3	Page s ze / mage s ze mm)	420 x 297 / 390 x 260

VIEWPOINT 13 - PHOTOMONTAGE VIEW (YEAR 1)

Maggots End Road / Public Bridleway 39_12,
south of Battle's Hall, looking north

FIGURE 6.6 | PHOTOMONTAGES

DRWG NO: 09 | REV:A DATE: 15/12/2022

TO BE VIEWED AT A COMFORTABLE ARM'S LENGTH

Camera make & model	Ca o EOS 750D	V ewpo nt he ght AOD)	104m	V sual sat on Type	ype 3
Lens make & focal length	Ca o EF 50mm /1 4 USM	D stance from s te	440m	Hor zontal F eld of V ew	39 6°
Date & t me of photograph	21/01/2021 @ 12 47	Pro ect on	P a a	He ght of camera AGL	1 5m
OS gr d reference	547529 227194	Enlargement / Sheet S ze	100% @ A3	Page s ze / mage s ze mm)	420 x 297 / 390 x 260

VIEWPOINT 13 - PHOTOMONTAGE VIEW (YEAR 5)

Maggots End Road / Public Bridleway 39_12,
south of Battle's Hall, looking north

FIGURE 6.6 | PHOTOMONTAGES

DRWG NO: 09 | REV:A DATE: 15/12/2022

TO BE VIEWED AT A COMFORTABLE ARM'S LENGTH

Figure 6.7 Cumulative Zone of Theoretical Visibility - Land at Berden Hall Farm.

KEY

- Site Boundary
- Land at Berden Hall Farm
- OS Local Buildings
- OS Local Woodland
- National Tree Map Data (2019)
- Zone of Theoretical Visibility - Land at Berden Hall Farm 2.5m Development Height Visible Only
- Zone of Theoretical Visibility - Main Site 3m Development Height Visible Only
- Zone of Theoretical Visibility - Both Sites Visible
- Viewpoint Location

Screened ZTV Production Information -
The ZTV has been produced using multiple datasets to create a DSM (Digital Surface Model). These have been combined together accurately using ESRI GIS software. The following datasets have been used to create the DSM-

- OS Terrain 5 (used as the base DTM (digital Terrain Model) This is a 5m grid dataset.

- Bluesky's National Tree Map (NTM) This is a detailed dataset covering England and Wales. It provides a comprehensive database of location, height and canopy spread for every single tree 3m and above in height. This is created from stereo aerial photography. Heights used within the model are the MEAN heights supplied with the dataset.

- OS Open Map Local Woodland - used to model vegetation beyond the NTM data - set to indicative 15m height

- OS Open Map Local Buildings - used to model buildings - set to indicative 8m height.

- Viewer height set at 1.7m (in accordance with para 6.11 of GLVIA Third Edition)

- Calculations include earth curvature and light refraction

N.B. This Zone of Theoretical Visibility (ZTV) image illustrates the theoretical extent of where the development may be visible from, assuming 100% atmospheric visibility, and includes the screening effect from vegetation and buildings, based on the assumptions stated above.

Figure 6.7

Cumulative Zone of Theoretical Visibility- Land at Berden Hall Farm

DRWG No: **P20-1300_16** Sheet No: **1** REV: **C**
Date: 07/12/2022
Scale: 1:30,000 @ A3

DESIGN | ENVIRONMENT | PLANNING | ECONOMICS | HERITAGE

0 1.25 km

N

Figure 6.8 Cumulative Zone of Theoretical Visibility - Stocking Pelham BESS.

KEY

- Site Boundary
- Stocking Pelham BESS
- OS Local Buildings
- OS Local Woodland
- National Tree Map Data (2019)
- Zone of Theoretical Visibility - Stocking Pelahm BESS 6m Development Height Visible Only
- Zone of Theoretical Visibility - Main Site 3m Development Height Visible Only
- Zone of Theoretical Visibility - Both Sites Visible
- Viewpoint Location

Screened ZTV Production Information -
The ZTV has been produced using multiple datasets to create a DSM (Digital Surface Model). These have been combined together accurately using ESRI GIS software. The following datasets have been used to create the DSM-

- OS Terrain 5 (used as the base DTM (digital Terrain Model) This is a 5m grid dataset.

- Bluesky's National Tree Map (NTM) This is a detailed dataset covering England and Wales. It provides a comprehensive database of location, height and canopy spread for every single tree 3m and above in height. This is created from stereo aerial photography. Heights used within the model are the MEAN heights supplied with the dataset.

- OS Open Map Local Woodland - used to model vegetation beyond the NTM data - set to indicative 15m height

- OS Open Map Local Buildings - used to model buildings - set to indicative 8m height.

- Viewer height set at 1.7m (in accordance with para 6.11 of GLVIA Third Edition)

- Calculations include earth curvature and light refraction

N.B. This Zone of Theoretical Visibility (ZTV) image illustrates the theoretical extent of where the development may be visible from, assuming 100% atmospheric visibility, and includes the screening effect from vegetation and buildings, based on the assumptions stated above.

Figure 6.8

Cumulative Zone of Theoretical Visibility- Stocking Pelham BESS

DRWG No: **P20-1300_16** Sheet No: **2** REV: **-**
Date: 07/12/2022
Scale: 1:30,000 @ A3

DESIGN | ENVIRONMENT | PLANNING | ECONOMICS | HERITAGE

0 1 km

Town & Country Planning Act 1990 (as amended)
Planning and Compulsory Purchase Act 2004

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Expertly Done.

DESIGN | ECONOMICS | ENVIRONMENT | HERITAGE | LAND & PROPERTY | PLANNING | TRANSPORT & INFRASTRUCTURE