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PELHAM SPRING SOLAR FARM

LANDSCAPE AND VISUAL IMPACT ASSESSMENT

ON BEHALF OF LOW CARBON SOLAR PARK 6 LIMITED

Pegasus Group

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1. INTRODUCTION

1.1 Pegasus Group have been commissioned by Low Carbon Solar Park 6 Limited to prepare a Landscape and Visual Impact Assessment (LVIA) in support of a planning application for the Pelham Spring Solar Farm near Maggot's End (refer to the Figure 1 Site Location Plan). The site falls within the administrative boundaries of Uttlesford District Council. The layout of the scheme is illustrated on the Landscape Strategy (Pegasus' drawing number P20-1300_06, Revision K) (Figure 2).

1.2 The proposed scheme has undergone 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 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.

1.3 During the meeting held on the 8th of April 2022 the Council's heritage and landscape officers suggested changes to the proposed scheme. 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."**

1.4 The advice given by the Council stated: **"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. It was acknowledged that the landscape harm would need to 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."**

Scope of Work and Methodology

1.5 This LVIA has been prepared by Radek Chanas MEng LA MA Garden and Landscape History, a Chartered Landscape Architect. It reviews and evaluates the baseline condition of the site and its surrounding landscape, and considers opportunities for mitigation measures and whether such measures would be appropriate to the local landscape character.

1.6 The main objectives of the LVIA are:

- To describe the landscape character of the site and its surroundings, evaluate its sensitivity to change and, taking into account the magnitude of change, assess the effect that the proposal would have on the local landscape character.
- To identify potential visual receptors (i.e. people who would be able to see the development), evaluate their sensitivity to change and, taking into account the magnitude of change, assess the effect that the proposal would have on visual amenity. Residential visual amenity issue is excluded from this LVIA.
- To identify landscape elements associated with the site, evaluate their sensitivity to change and, taking into account the magnitude of change, assess the effect the proposals would have on landscape elements.
- To identify mitigation measures and opportunities for landscape character and visual amenity enhancement, in order to mitigate, offset or reduce the predicted adverse effects.

1.7 The LVIA assesses the operational stage of the proposed development only, as the construction and decommissioning stages would be of short and temporary duration. Any potential effects brought about by the construction and decommissioning stages are likely to be lower or similar to those assessed post construction. The effects are therefore assessed at Year 1, immediately post-completion, and at Year 5 to take into account proposed mitigation and enhancement measures. The assumed vegetative growth is taken as 0.5m per year.

1.8 Desktop studies revealed a number of cumulative solar schemes in the area, west and east of Stocking Pelham and near Berden. These, however, are at preliminary

stage and it is not certain whether they will come forward. For that reason potential cumulative landscape character or visual issues are not considered in this LVIA.

1.9 The EIA screening has not been received at this stage; the scheme is being assessed as a non-EIA development. This LVIA has been undertaken with regards to the best practice guidelines within the *Guidelines for Landscape and Visual Impact Assessment* Edition 3 (hereafter referred to as *GLVIA3*). The *GLVIA3* states 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."**[1]

1.10 *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."[2]

1.11 *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"**[3]

1.12 All effects are taken as adverse unless otherwise stated. This LVIA should be read in conjunction with the supporting Planning Statement and Design and Access Statement (DAS). The detailed methodology for this LVIA provided in Appendix 1. The photographic evidence has been prepared with regard to the new Technical Guidance Note 06/19 published 17th September 2019 by the Landscape Institute: *Visual Representation of Development Proposals.*

[1] Paragraph 1.1, Page 4, GLVIA3rd Edition
[2] Paragraph 1.17, Page 9, GLVIA, 3rd Edition
[3] Paragraph 2.23, Page 21, GLVIA, 3rd Edition

2. DESCRIPTION OF THE SITE AND PROPOSALS

2.1 The 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 1. The nearest group of dwellings is located in the hamlet of Brick House End to the west. Battles Hall and other properties in Maggot's End sit to the south east of the site, and along Maggot's End Road leading west from Manuden to East End and then Stocking Pelham. Blacking's Lane forms, in part, the site's northern edge and coincides with Public Right of Way (PRoW) Public Footpath FP 5-12. A number of other PRoWs cross the site or pass in very close proximity, linking Battle's Hall and Maggot's End Road with Brick House End.

2.2 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 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.

2.3 Broadly speaking, the site is enclosed to the north by Blacking's Lane and associated vegetation, Battle's Wood to the east, boundary hedgerows and hedgerow trees to the south, and Pump Spring woodland, which compartmentalise the site and visually separates its western most part. The Pelham Spring Electricity Substation is located to the west. Tree vegetation that encloses the Substation provides screening to the west. The site and its immediate surroundings are influenced by the existing large scale energy infrastructure, as acknowledge 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."**

2.4 The proposed development, broadly speaking, can be divided into two areas which reflects the compartmentalised character of the site. The eastern part is largely located between The Crump, Brick House End, and Battle's Hall; with its western part located between Pump Spring woodland and the Pelham Spring Electricity Substation.

2.5 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 best fit alternative, responding to the site's 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.

2.6 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. 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.

2.7 The eastern part of the proposed development is enclosed to the west and east by tree and hedgerow vegetation, effectively preventing from gaining any views in or out. Furthermore, the northern perimeter of the site is marked by a strong line of vegetation associated with Blacking's Lane, which coupled with the gently rising topography completely separates the site from the landscape to the north and the neighbouring The Crump. In summary, the proposed development lacks any visual connectivity with the short, medium to long distance landscape to the west, north, or east.

2.8 The construction access would be from Manuden Road, along one of the field boundary hedgerows, and would run to the north of Battle's Hall and Battle's Hall Barns. It would fall within a large scale arable field between Battle's Wood and Battle's Hall and would follow the alignment of Public Footpath 39-4. The construction access would avoid existing PRoWs. The proposed internal access tracks would follow field boundaries and utilise the existing gaps in vegetation and / or existing field access points, where possible.

2.9 The proposed DNO 132kV substation and 132/33kV transformer compound would be located in a discreet parcel of land, in the southern part of the 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. 57.7 x 28.1m with the compound enclosed by fencing. The connection between the

panels and substation would be underground. A single internal access track, forming the DNO access route, would connect the substation with Maggot's End Road and provide access west to the site's western parcel.

Colours and materials

2.10 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 with the Council. This LVIA is based on the assumptions that the colour and finishes are likely to be recessive and dark, to reduce their visibility. The 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

2.11 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.

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

2.13 During on site survey it was noted that there are a number of overgrown hedgerows with hedgerow trees around the 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.

2.14 By offsetting the proposed panels from the boundaries, the scheme avoids any direct effect upon the Root Protection Zone 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 risk which could result in future tree works.

2.15 With regards to Public Footpaths 4-39 and 34-39, which cross the site, these PRoWs would be enclosed 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 site's western most field, it would be segregated from the site by a new hedgerow. The northern edge of this area would be also enclosed by a new hedgerow and hedgerow trees, to address the issue of inter-visibility with the nearby Public Footpath 5-52 located to the north.

2.16 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.

2.17 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 parcel 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 Blacking'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.

3. LANDSCAPE ELEMENTS

3.1 The effects of the proposals on the character of the wider landscape are discussed in detail in section 4. This part of the LVIA analyses the effect of the proposed solar farm on those landscape elements and features including topography, vegetation, and other features that help characterise the site, and provide the structural integrity of its environment.

3.2 Existing landscape features and elements within and immediately surrounding the site are shown on the Landscape Strategy (Figure 2) along with the proposed planting. The existing condition of the 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 5). At this stage it is envisaged that there would be no need to remove any existing vegetation along the delivery route or construction access between Manuden Road and the site.

Effect upon the ground cover

3.3 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 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.

3.4 The existing ephemeral arable crop and grass margins, and improved grassland that characterise the 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 2 Landscape Strategy for details). Overall, the proposals would replace an ephemeral vegetation with permanent grassland, resulting in 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 site

3.5 The gently sloping landform of the 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.

3.6 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 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 site.

Effect upon tree and hedge resource

3.7 None of the trees within the site's boundaries are protected by any Tree Preservation Order (TPO)[4] 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.

3.8 Based on the Landscape Strategy (Figure 3) it transpires that the proposed development would bring about a net gain in the site's hedgerow and hedgerow tree resource. The increase in the resource would be considerable and the proposed

[4] Based on Uttlesford District Council on-line mapping [redacted] [accessed 02 September 2021].

hedgerow and hedgerow tree planting would result in a high magnitude of change, and major beneficial effect within the site.

Public Rights of Way (PRoWs)

3.9 None of the PRoWs abutting or leading through the 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 site would be retained and enclosed by new hedgerow and hedgerow tree planting – refer to the Landscape Strategy plan (Figure 2).

Effect upon water features

3.10 Some of the 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 proposed infrastructure. In short, the existing water features would be retained and not physically affected.

Summary Statement

3.11 The proposed development would have minor beneficial effects upon the grassland of the site, due to the change from ephemeral arable crop to species rich grassland. In terms of the site's topography effects would be negligible neutral. With regard to the tree and hedgerow resource the proposals would bring about major beneficial effects.

3.12 Other landscape features, such as water features and PRoWs would be retained and would not be physically affected.

4. LANDSCAPE CHARACTER

4.1 This chapter seeks to establish how the proposed development would have a bearing upon landscape character locally. The effects on landscape character considers how the introduction of new landscape elements physically alters the landform, landcover, landscape pattern, and perceptual attributes of the site or how visibility of the proposals changes the way in which landscape character is perceived. Landscape character is defined in *GLVIA3* as the:

> **"Distinct, recognisable and consistent pattern of elements** in the landscape that makes one landscape different from another, rather than better or worse**."**[5]

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

4.2 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 site is located within the South Suffolk and North Essex Clayland (NCA 86), as identified by Natural England.[6] The key characteristics includes:

- **"**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

[5] Glossary, Page 157, GLVIA 3rd Edition
[6] Natural England, NCA 86 South Suffolk and North Essex Clayland, [redacted] [accessed 02 February 2021]

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.**"**

4.3 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, 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

4.4 The landscape around the site is described and analysed in the *Essex Landscape Character Assessment*, published in 2003 by Essex County Council. According to the published *Assessment* the 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).[7]

4.5 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."**

4.6 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**"**

4.7 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**."**

[7] Essex County Council, Essex *Landscape Character Assessment* (2003),

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

Uttlesford District Council Landscape Character Assessment

4.9 At the district level, Uttlesford District Council published its own landscape character assessment titled *Braintree, Brentwood, Chelmsford, Maldon And Uttlesford Landscape Character Assessments*.[8] According to the published assessment the site is located within H4 'Berden and Farnham Chalk Upland' Landscape Character Area (LCA), part of Landscape Character Type (LCT) H 'Chalk Upland Landscapes'.[9]

4.10 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."**

[redacted] accessed 12 March 2021]

[redacted] [accessed 12 March 2021].

4.11 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 sta**tion outside Berden."**

4.12 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 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

4.13 The following paragraphs analyse the site's landscape character, based on on-site assessment, 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. The analysis is carried out in accordance with Box 5.1 of the *GLVIA3*. Landscape factors identified in Box 5.1 are not analysed in detail, due to the scope of this LVIA, but rather a general commentary is provided in the paragraphs below.

Surrounding landscape

4.14 The landscape around the 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 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 a very limited visual connectivity with the surrounding and wider environs (refer to Figure 1 Site Location Plan).

4.15 Stocking Pelham and Berden are the closest settlements of notable size, and are located to the north and north west. Both settlements are separated from the site by undulating landform and strong landscape framework. In short, there is lack of any inter-visibility between the 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 not visible from the site or its environs, being associated within the River Stort valley and separated from the 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 site, and connects with Maggot's End via a number of Public Footpaths. Despite proximity, views from within the hamlet are generally screened.

Landscape Value

4.16 The landscape is not subject to any statutory or non-statuary landscape designations. The site represents a typical example of managed agricultural landscape. The site and indeed the majority of the surrounding wider landscape are not subject to any statutory landscape designations (such as National Park or Area of Outstanding Natural Beauty). 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.

4.17 In terms of its scenic qualities, the site is a pleasant and attractive, but unremarkable area 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 site is almost imperceptible. In short, the site and its immediate environs are not seen in the context of the River Stort valley landscape, located further east.

4.18 The undulating topography around the 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.

4.19 The 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 covered by Tree Preservation Order. The site and immediately adjacent fields are not covered by any landscape conservation designations that would relate to ecology or biodiversity. The 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 site. Noise and movement are limited. Based on the above analysis the value of the local landscape is assessed as being medium.

Landscape Susceptibility

4.20 The 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 3 Topography and Visual Receptors Plan). The site's western, northern, and eastern perimeter coincides with a locally higher ground, effectively placing the 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 site. The higher ground to the south east of the 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".[10] 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 i**n 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."**[11]

4.21 The landscape appears settled and quiet, but is not remote. Its relative level of tranquillity is reduced by a strongly linear features of 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 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'.[12]

4.22 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"**.[13] Lack of boundary vegetation is also evident particularly within the site and along the nearby Maggot's

[10] *Essex Landscape Character Assessment* (2003), p. 39
[11] *Braintree, Brentwood, Chelmsford, Maldon And Uttlesford Landscape Character Assessments* (2006), p. 338.
[12] Ibid., pp. 337 – 338.
[13] *Essex Landscape Character Assessment* (2003), p. 51.

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 site and nearby visual receptors, and indeed the wider landscape.

4.23 Solar farms are characterised by their light footprint and low profile, with the panels following and reflecting the underlying topography. On that basis the susceptibility of the local landscape to this type of development is assessed as low.

Landscape sensitivity

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

Landscape character effects

4.25 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.

4.26 The proposed development would be physically and visually curtailed by the existing mature hedgerows and hedgerow trees that delineate the 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 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 slightly 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 scheme utilises the more compartmentalised fields around Battle's Wood and Spring Wood whilst limiting adverse effects upon the field pattern

and perception of wooded landscape, responding in a positive manner to the characteristics of the site.

4.27 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 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 Blacking'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.

4.28 The proposed solar panels would be of low profile, being approx. 3m in height, and would follow the gently undulating landform across the 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 being familiar to local residents such as Pumps Spring woodland and Battle's Wood. The onsite survey did not reveal any views where the 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 prevents from gaining any simultaneous views that would affect the appreciation or contribution of its architecture and associated Scheduled Monument to the landscape character.

4.29 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 scheme from the landscape to the south, thus help preserve the appreciation of its rural character. The sense of openness would decrease locally, but this would be limited to the site itself, with the existing landscape framework already providing a strong sense of enclosure.

4.30 In terms of sensory and perceptual qualities of the local landscape, these would remain largely unchanged with the solar panels requiring a 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 site. It is important to note that the proposed planting strategy has been purposely devised to limit views into the site and reduce any adverse visual effects, and not exacerbate adverse effects caused by the large scale pylons and nearby substation at Stocking Pelham.

4.31 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.

4.32 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.**"**

4.33 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 on site resulting in limited nevertheless beneficial change to the condition and quality of the landscape on a local level.

4.34 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.

4.35 Whilst the changes to the proposed scheme resulted in the solar modules being removed from parts of the eastern parcel, these changes aimed largely at addressing the issue of visual amenity, perception of the countryside, and perceptual qualities of the landscape character. Therefore, the magnitude of change remains assessed as low.

4.36 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).

4.37 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

4.38 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 form 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 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.

5. VISUAL AMENITY

5.1 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."**[14]

5.2 The assessment was carried out in late January and late June 2021 as part of on-site surveys. Site photographs were taken to record the character and nature of the views, and the existing visibility of the site. Where relevant the seasonal changes to the vegetative cover have been considered as part of the visual assessment.

Visual Receptors

5.3 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 site. The majority of such receptors are located at some distance, 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 3 Topography and Visual Receptors Plan).

5.4 There are a number of Public Rights of Way that cross and abut the site, with the network of PRoWs extending across the surrounding countryside. These tend to converge at the nearby settlements, for example Stocking Pelham to the north west, Berden to the north, Manuden to the south east, and Mallows Green to the south. Views from these PRoWs are influenced by the boundary vegetation and topography with the site falling in and out of the view. The Pelham Substation and lines of large scale electricity pylons and overhead cables influence the perception of the local landscape, as acknowledged by the Council's landscape officer (refer to the Council's pre-application advice): "It was also recognised by the landscape officer that the existing electrical infrastructure adjacent to the site does

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

weigh in favour of the proposed development at this location compared to other locations in the district." A number of those PRoWs have been visited during the site visit and included in this assessment.

5.5 Harcamlow Way is the only long distance route within the local area and traverses the landscape in the eastern and southern part 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

5.6 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 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 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 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 (refer to Figure 5 Baseline Panoramas and Photoviews and Figure 6 Photomontages).

5.7 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 3 Topography and Visual Receptors Plan. Views from within the 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 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 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 site terminate on this vegetation (Viewpoints 2 and 3, Figure 5). 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 site are also considerably restricted giving evidence of the vegetative screening around the site. In short, there is a distinctive lack of any inter-visibility between the site and the more distant landscape to the west.

5.8 As discussed previously, the northern, north eastern, and eastern perimeter of the eastern parcel of the 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 that marks the eastern edge of the site. It is important to note that this vegetation marks the highest point along the site's northern and eastern perimeter with the landscape beyond falling away from the site. At the same time, the 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.

5.9 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 site. As evidenced by the site photography (Viewpoint 8, Figure 5) 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 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 site.

5.10 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 lack of any inter-visibility between the 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.

5.11 With regards to views from the east, Battle's Wood and the aforementioned hedgerow along the site's north eastern perimeter sit at approx. 119m AOD with the 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 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 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 site, around Mount Pleasant (approx. 105m AOD) (Viewpoint 16, Figure 5)

5.12 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 from gaining any elevated or unrestricted views towards the site.

5.13 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 from gaining any clear views towards the 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 site from the southern study area. This slight elevated ground is located immediately to the south west and south east of the 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 3 Topography & Visual Receptors Plan and Figure 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.

5.14 It also transpires that the majority 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 site and adjacent to it, sections of the public highway between East End and Maggots End immediately to the south of the site, and PRoWs located on the slightly elevated ground to the south of the road.

Sensitivity of Receptors

5.15 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 scheme. 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 assessed as medium.

5.16 Further details on the LVIA methodology are provided in Appendix 1.

Viewpoint Assessment

5.17 Initially, a set of 12 viewpoints have been selected around the site, and generally in close proximity to it, reflecting the theoretical visibility of the proposed scheme 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, 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.

5.18 The inclusion of a viewpoint in this LVIA does not imply that predicted effects will occur, or will be of higher magnitude of change. A variety of landscape and visual mitigation measures have been incorporated through the iterative design process in order to prevent, reduce or offset potential landscape and visual effects.

5.19 It is worth reiterating that in the majority of cases the nature and character of the views gained from around the site are strongly influenced by changes in the landform and field boundary vegetation with a number of locations substantially restricted and not offering clear views of the site.

Viewpoint 1 Public Bridleway 024, between East End and the site, looking north east to east.

Baseline

5.20 This location illustrates initial views from Maggot's End Road towards the site, as one leaves the enclosed landscape around East End and travels towards Maggot's End. Views are foreshortened by the gently rising topography that forms the foreground with views of large scale electricity pylons partially restricted. The intervening vegetation screens Pump Spring wood and landscape further east.

Sensitivity

5.21 Receptors traveling along PRoWs are of high sensitivity.

Magnitude of Change

5.22 The field boundary hedgerows and trees visible in the middle ground mark the alignment of Public Bridleway 57-5, which forms the site's western edge and is a continuation of Public Bridleway 024. The site's southern boundary is screened although some of the associated trees are identifiable. The site's western edge and site land is not visible due to changes in levels and growing crop – broad beans at approx. 40-50cm height.

5.23 Given the height of this vegetation, compared with the 3m solar panels, it is predicted that the western edge of the proposed development would be evident due to proximity and relatively open views. The panels would be largely seen in isolation, enclosed by the nearby tree vegetation and hedgerows, and with little landscape context, although they would be seen in a relative close proximity and across much of the view. The magnitude of change is assessed as medium post construction at Year 1. It is envisaged that with the successful establishment of the proposed mitigation measures, assumed to be managed at 3m in height when mature, the magnitude of change would diminish to low at Year 5 in winter months.

Scale of Effects

5.24 The proposed development would bring about major adverse effects at Year 1, reducing to moderate adverse at Year 5.

Viewpoint 2 Public Bridleway 57-5, south western corner of the site, looking north to east.

Baseline

5.25 This viewpoint has been purposely selected to illustrate the open views across the site's Development Zone 8 and prove lack of inter-visibility with the landscape to the north and east. Views are relatively open but short range and terminate on the tree planting along the Stocking Pelham Electricity Substation to the west and north west, the wooded pastures of Park Green Open Access Land, and vegetated edge of Sleepy Hollow and Highfields to the north. Views north east and east terminate on the heavily vegetated edge of Brick House End with the associated properties not visible.

Sensitivity

5.26 Receptors traveling along PRoWs are of high sensitivity.

Magnitude of Change

5.27 The proposed development would be seen immediately in front of PRoW users, changing the character and nature of view. The tree vegetation seen in the

background would be considerably screened, but the proposals would be seen in isolation with the wider landscape generally not visible, except for views south west. Such views, however, would be in the opposite direction and the proposed development would have limited influence over these views. The proposed planting would be ineffective at Year 1 with the magnitude of change assessed as major. Once the proposed mitigation planting has established and views of the proposals screened or restricted to a considerable degree, it is anticipated that the magnitude of change would reduce to low at Year 5. The panels would be located some 30m away at their closest point and the modules fencing and CCTV cameras are unlikely to be evident or exerting a strong visual influence given the context. Whilst there is potential for some of the infrastructure to be identifiable through the maturing hedgerow in winter months, the introduced tree canopies and strongly linear alignment of the new hedgerow would deflect the focus and direct the eye along the PRoW and to the north west, rather than across the site itself.

Scale of Effects

5.28 The proposed development would bring about major adverse effects at Year 1 diminishing at Year 5 to moderate adverse once the planting has sufficiently matured to screen the proposed development.

<u>Viewpoint 3 Public Bridleway 57-5, south west of the site at Park Green, looking south to south east.</u>

Baseline

5.29 This location has been purposely selected to illustrate one specific point along the edge of Park Green Open Access Land where restricted views towards the site can be gained. A gap in vegetation allows for views east and south and due to elevation (approx. 123m AOD) views are medium to long range. Generally speaking, the heavily treed edge of Brick House End terminates views to the east, and hamlet is not visible. The more distant landscape in the eastern study area appears above the tree canopies but its contribution is greatly reduced. Pump Spring wood is easily identifiable and screens views to the south east. The eye travels south and south west with the landscape gently sloping south and revealing medium to long range landscape of arable field sand wooded horizon.

Sensitivity

5.30 Receptors traveling along PRoWs are of high sensitivity.

Magnitude of Change

5.31 The southern edge of the western parcel is partially screened due to changes in levels but the canopies of the boundary trees interrupt views south. The electricity pylons, visible in the foreground, help ascertain the extent of the western parcel and its northern boundary. The proposed panels would be located at approx. 340m away, and largely behind the pylons, with the northern most edge of the development visible. The majority of the panels, however, would not be visible due to the sloping terrain. The edge of the panels would appear as a simple line, following the topography of the site, and partly restricting views to the south and south west. Receptors would be looking at the back of the panels with deer fencing and newly planted hedgerow and hedgerow trees enclosing the proposed development. At Year 1 the introduced change is considered to be high due to proximity. The introduced planting strategy would reduce the degree of change at Year 5 to low with the new maturing hedgerow and hedgerow trees replacing the solar panels in this view. Although the views would be foreshortened the proposed vegetation is not considered incongruous with views being incidental and gap planted up as part of the landscape strategy.

Scale of Effects

5.32 The proposed development would bring about major adverse effects at Year 1, reducing to moderate adverse at Year 5.

<u>Viewpoint 4 Public Footpath 52-5, near north western edge of Brick House End, looking south west.</u>

Baseline

5.33 This view is located near the western edge of Brick House End, before the receptors enter the well treed and enclosed village environs. It is short range and solely focused on the field visible in the foreground and strong landscape framework that surrounds it. Large scale electricity pylons and upper part of the Stocking Pelham Electricity Substation form a feature in this view. The southern part of the site is visible due to gentle change in levels with its boundary vegetation screening views further south west.

Sensitivity

5.34 Receptors traveling along PRoWs are of high sensitivity.

Magnitude of Change

5.35 Due to the topographical profile of this large scale arable field the majority of land site associated with the site's western parcel is visible. The proposed development

would introduce a linear feature into this landscape with the northern edge of the western parcel likely to screen the rest of the panels. The new hedgerow and trees would reinforce the linear arrangement of the panels, which would be seen from the back, and would be recessive in this view. Due to proximity the magnitude of change would be high at Year 1. Once the proposed mitigation planting has matured, at Year 5, the magnitude of change is predicted to diminish to low with the proposed vegetation substantially screening views of the proposed development and adding got the well treed char acer of the local landscape.

Scale of Effects

5.36 The proposed development would bring about major adverse effects at Year 1, reducing to moderate adverse at Year 5.

Viewpoint 5 Maggots End Road / Public Bridleway 39-11 looking north to east

Baseline

5.37 This viewpoint is located along the elevated section of Maggot's End Road and coincides with the northern end of Public Bridleway 39-11. It is one of the first locations along this road, and indeed in the western part of the study area, where less restricted views of the site can be gained. The nearby Public Bridleway 5-57, located to the north west, is separated by an additional hedgerow and views are further restricted thus views from this particular PRoW were considered less informative.

5.38 Views to the north include the nearby Stocking Pelham Substation with strong lines of large scale electricity pylons. The south facing slope with pylons, visible through tree canopies, forms the Development Zone 8. The horizon is wooded and neither Stocking Pelham nor Berden are visible. A water tower, located to the east of the Stocking Pelham Substation, is visible amongst tree canopies. Views to the north east and east include Pump Spring and Battle's Wood. A small cluster of properties, identified as Battle's Hall Barns, is visible in the distance and partially screened by the roadside hedgerow. The landscape in the eastern study area is distant, appears vegetated, and lacks any evident or easily recognisable features.

Sensitivity

5.39 Receptors along PRoWs are of high sensitivity with receptors along Maggot's End Road being medium.

Magnitude of Change

5.40 The majority of the proposed development would not be visible from this viewpoint and indeed this section of the road. Pump Spring wood screens the majority of the site with trees along Maggot's End Road further interrupting the views. As part of the iterative design process carried out in 2021 the land between Pump Spring wood, Maggot's End Road, and Battle's Hall was removed from development. A buffer along Battle's Wood is also being proposed, which covers the higher ground, and would act as a physical and visual buffer free from development.

5.41 Receptors are likely to gain views of the site's western parcel with the panels and deer fencing identifiable against the backdrop of trees lining the horizon, and framed by Pump Spring wood to the east/ right (Figure 6 Photomontage). Trees along the southern boundary of the western parcel include mature specimens which help filter views. The low lying topography across the southern part of this parcel helps foreshorten the views and the majority of the panels would not be easily identifiable.

5.42 Battle's Wood marks the higher ground to the east of the site and separates the site from the north eastern and eastern study area. Some of the panels on the sloping ground may appear in front of Battle's Wood, but the visibility would be restricted by the intervening tree canopies.

5.43 Based on the visibility of the site's western parcel, the magnitude of change is assessed as low. It is envisaged that with the successful establishment of the proposed mitigation measures, with the enhanced hedgerow assumed to be managed at 3m in height when mature, the magnitude of change would diminish to negligible at Year 5 in winter months, given the context.

Scale of Effects

5.44 The proposed development would bring about minor adverse effects upon the road users and moderate adverse effects upon PRoW users at Year 1 in winter. It is important to note that this assessment is not representative of views gained from Public Bridleway 39-11. At Year 5 the effects would diminish to negligible neutral at this very specific location.

<u>Viewpoint 6 Public Footpath 5-15, south of Brick House End, looking east to south.</u>

Baseline

5.45 This view illustrates the visual and physical separation between the site and the nearby Public Footpath 5-15 that leads south from Brick End House. Views from

this Public Footpath are strongly enclosed and inward looking, with views terminating on the immediate field boundary hedgerows and tree belts. Pump Spring and associated belt of trees terminate views south and south east with views to the east heavily filtered by the intervening mature and tall field hedgerow and hedgerow trees. The landscape gently rises to the east and the higher ground is marked by Battle's Wood, but the more distant eastern part of the study area is not visible. There are no other features visible in this view.

Sensitivity

5.46 Receptors along PRoWs are of high sensitivity.

Magnitude of Change

5.47 The majority of the site would not be visible from this viewpoint. Receptors at this viewpoint would gain heavily filtered views of a relatively small area of solar modules and associated infrastructure, located on the sloping ground seen against Battle's Wood. The refinements to the layout carried out following the pre-application advice from the Council in June 2022 resulted in the development being omitted from the low lying field closest to this viewpoint – around the bottom of the pylon on the left hand side of the panorama; and the slightly elevated ground seen to the right of Battle's Wood – the dashed yellow line shown on Figure 5 represents an indicative southern most edge of the eastern parcel.

5.48 These introduced changes ensure that the foreground and part of the sloping slightly elevated ground near Battle's Wood would remain open and undeveloped, and converted to permanent pastures. Therefore, the foreground and much of the middle ground would remain unchanged with the receptors' visual amenity continuing to be influenced by the open pastoral field, strong landscape framework around, and views of the pylons. Views to the south, towards the proposed substation and solar modules would be screened by the intervening mature trees, and this part of the scheme is unlikely to be visible. The magnitude of change is assessed as low at Year 1, given the reduction in the extent of the proposed solar modules, increased distance between the receptor and proposed infrastructure when compared to the previous planning application UTT/21/3356/FUL, and proposed planting. Once the mitigation measures have been implemented with the hedgerow structure and condition improved, it is anticipated that the magnitude of change would diminish to negligible at Year 5.

Scale of Effects

5.49 Receptors at this Viewpoint 2 and this section of Public Footpath 5-15 would be subject to moderate adverse effects at Year 1, diminishing to negligible neutral at Year 5, in winter months.

Viewpoint 7 Public Footpath 5-14, eastern edge of Brick House End, looking north to south east.

Baseline

5.50 This location illustrates views as one leaves the heavily enclosed hamlet of Brick House End and travels towards Maggot's End, traversing the site. The surrounding landscape is low lying and enclosed by a gently undulating topography and tree vegetation to the north and east. The western edge of Development Zone 5 is marked by a mature and tall hedgerow, which links with the tree vegetation around The Crump (outside the view). Blaking's Lane can be easily identified on the horizon to the north and north east. It is marked by a strongly vegetated tree line that links with Battle's Wood to the east. There is evident lack of any inter-visibility between the site and the wider landscape further north and east. Views to the south east terminate on the rising ground, which forms the site's south eastern edge, with some of the properties in Maggot's End visible on the horizon.

Sensitivity

5.51 Receptors along PRoWs are of high sensitivity.

Magnitude of Change

5.52 Receptors at this location would gain views of the proposed solar panels and associated infrastructure, which would be located on the gently sloping landform that forms the background to this view, seen against Battle's Wood. The currently proposed refined layout omits the solar modules on the higher ground in the northern most part of the eastern parcel, providing an increased physical buffer to Blaking's Lane and reducing the perceived massing of the scheme in views north east. The relatively tall, albeit gappy in places, line of vegetation that marks the low lying eastern edge of the site would provide visual buffer, with the proposed planting reinforcing its function as a landscape element and its screening effects. The low lying field, located behind this tall vegetation would include solar modules but only in its northern part, which benefits from better screening and stronger sense of enclosure. The southern part of the field, with views gained through a gappy boundary hedgerow is now being proposed to remain open and undeveloped, to lower the influence of the proposed infrastructure upon the nearby visual receptors and reduce the adverse effects. The gently sloping ground located to the

right of the view, i.e., south west of Battle's Wood and seen in the context of the large scale pylons would be also left undeveloped – change from the previously proposed layout.

5.53 The majority of the visible panels seen against Battle's Wood would be easily identifiable due to proximity, change in levels, and lack or limited intervening boundary vegetation in this particular direction of view. Views to the north east (most of Viewpoint 7A), however, would be heavily filtered by the boundary hedgerow. The existing vegetation provides a considerable screening and illustrates how mitigation measures can successfully reduce the anticipated scale of effects at this location. The magnitude of change at Year 1 is assessed as medium, reducing to low at Year 5 – based on the conservative view that tree canopies would not have developed sufficiently to screen the site completely.

Scale of Effects

5.54 Based on the above the scale of effects at Year 1 would be major adverse reducing to moderate adverse at Year 5. It is important to note, however, that with time these effects would reduce further. Once the proposed hedgerow trees and tree belt fully matures, the effects are likely to be negligible neutral.

Viewpoint 8 Minor road leading south to Brick House End, near The Crump, looking south east to south.

Baseline

5.55 This location has been purposely selected to illustrate views from the north west of Development Zone 5 and near The Crump, and is the only location in this part of the study area where views towards the site can be gained. The viewpoint is positioned at a field entrance, where a gap in the mature roadside hedgerow (approx. 10m wide) allows for some restricted views towards the site. The roadside hedgerow (road leading to Brick House End) encloses and screens views to the south. Battle's Wood and tree vegetation along Blaking's Lane form a well wooded/ treed horizon and views are short to medium range. None of the properties in Brick House End or Maggot's End are visible in this view. The Crump is separated and largely screened by its garden vegetation and trees/ hedgerow associated with Blaking's Lane.

Sensitivity

5.56 Road users are of medium sensitivity.

Magnitude of Change

5.57 The north western boundary of the eastern parcel is marked by a mature and tall hedgerow with hedgerow trees, which collectively create a strong and dense visual barrier. Some gaps do exist, mostly due to being a dormant season, and traveling receptors would gain glimpsed and very restricted views into the interior of the site with solar modules identifiable in the view (Figure 6 Photomontage). It is important to note that receptors would be looking at the back of the panels, which would appear dark and recessive, and visually merge with the dark browns and greys of the winter landscape. The majority of the site would be screened and views from this location would be gained in transition. The magnitude of change is assessed as low at Year 1, as a worst case scenario. This would diminish to negligible at Year 5 once the mitigation planting has matured.

Scale of Effects

5.58 The proposed development would bring about minor adverse effects upon the road users at Year 1 in winter. At Year 5 the effects would diminish to negligible neutral.

Viewpoint 9 Blaking's Lane, Public Footpath 5-12, looking south west.

Baseline

5.59 Blaking's Lane is characterised by a strong sense of physical and visual enclosure with views out very restricted and only gained through understorey and tree vegetation. In other words, there are no views of the site from this Lane, and the associated Public Footpath 5-12, that would be clear or unrestricted. Views are strongly interrupted and the arable field in the background forms the northern part of the site – Development Zone 5. None of the features or built form in the surrounding landscape can be easily identified due to the intervening vegetation. Views north east are also enclosed and where Blaking's Lane joins Public Footpath 5-50, restricted views to the north east and towards the low lying Little London can be gained.

Sensitivity

5.60 Receptors along PRoWs are of high sensitivity.

Magnitude of Change

5.61 Views are considerably screened, and the layout includes a considerable physical buffer to Blaking's Lane, which would be left undeveloped. The design work carried out in July 2022, following the pre-application feedback from the Council, resulted in the buffer being increased, particularly along the western section of Blaking's Lane near The Crump. Views from this particular location, however, would remain

very close range with the receptors looking at the back of the panels through the tree and understorey vegetation. Due to proximity the magnitude of change is assessed as medium at Year 1, as the receptors would be subject to very restricted, yet prolonged views of the panels and perimeter fencing seen in very close proximity. The proposed mitigation planting would reinforce the vegetation along Blaking's Lane, and it is anticipated that at Year 5 the magnitude of change would quickly diminish to negligible.

Scale of Effects

5.62 Based on the above, the proposed development would bring about major adverse effects at Year 1 reducing to negligible neutral at Year 5.

Viewpoint 10 Public Footpath 39-4, near Battle's Hall, looking south west to north west.

Baseline

5.63 This location has been selected along an agricultural track and Public Footpath 39-4 which leads from Maggot's End and Battle's Hall along the site's southern edge. It is one of the first locations where views into the site's Development Zone 6 and 7 can be gained from around Battle's Hall. Battle's Hall itself is enclosed by a relatively high brick garden wall and its garden vegetation. Battle's Hall Barns also benefit from vegetative screening with views heavily interrupted Therefore views from the nearby Public Footpath 39-37, which skirts the edge of this particular property, have not been considered as informative.

5.64 Public Footpath 39-4 follows a relatively well vegetated agricultural track, although gappy in places, and views into the site are generally restricted to very restricted, particularly further west along this route. This viewpoint, therefore, illustrates views from its eastern edge where gaps in the hedgerow line are more evident. Maggot's End Road can be identified to the south west, in the middle ground, and is marked by seldom growing trees. The road follows the undulating and rising landscape with the horizon elevated and relatively simple, with occasional trees and electricity pylons forming a feature on the skyline. Views due west are very restricted by the hedgerow and tree vegetation associated with this track, but the Stocking Pelham Substation is visible in the distance just above the tree vegetation. Views north west are medium range and terminate on the wooded horizon which encloses the hamlet of Brick House End. The undulating topography is very evident with views north restricted by the rising arable field, and this higher ground is marked by Battle's Wood. A large scale electricity pylon marks this higher ground and interrupts the landscape pattern, exerting a considerable negative influence.

Sensitivity

5.65 Receptors along PRoWs are of high sensitivity.

Magnitude of Change

5.66 As part of the iterative design carried out in 2021, the proposed development was re-designed to provide a buffer to Battle's Hall and Maggot's End Road. In other words, the land between this PRoW and Maggot's End Road is excluded from development This would also ensure that the character and nature of views gained south and south west at this location would remain largely unchanged and the visible land would remain undeveloped and open. As explained elsewhere in this LVIA, following the pre-application advice from the Council in June 2022, the layout of the scheme has been subject to further revisions. As part of this process, the southern most areas of the eastern parcel, those closest to Public Footpath 39-4 and this Viewpoint 10, have been omitted from the currently proposed layout to limit the visibility of the proposed scheme and reduce the negative influence over the users of this PRoW.

5.67 Therefore, the southern most edge of the eastern parcel has moved further away from this PRoW, some 200m away at its closets point with the edge of the site being located behind the line of pylons visible in the middle ground. The gently rising landform would partially screen the scheme with the solar modules and fencing as well, visible over the brow of the hill. The foreground would remain undeveloped with additional hedgerow and tree planting proposed along this Public Footpath 39-4 to further protect the visual amenity of the associated receptors. Other parts of the proposed development, its low lying areas and northern most part of the eastern parcel would not be visible due to change in levels. The western most part would be screened by Pump Spring wood.

5.68 The proposed modules would appear as a relatively simple linear form that follows the local topography with views limited to the edge of the scheme. The scale and massing of the overall scheme would not be percpetible, and receptors would continue to gain views of the distant woodlands, tree canopies, with the foreground left undeveloped. The nearby large scale pylons provide context and reduce the degree of change. This coupled with the increased buffer, proposed mitigation planting including trees, and retained sense of openness in views to the north west and north, results in the magnitude of change being assessed as low.

5.69 As explained in the previous sections of this LVIA the iterative design process and proposed extensive mitigation measures have been developed to reduce the anticipated degree of change. Once the proposed mitigation measures have established and matured, it is anticipated that the magnitude of change could reduce to negligible at Year 5.

Scale of Effects

5.70 Based on the above the scale of effects at Year 1 would be moderate adverse, diminishing to negligible neutral at Year 5.

Viewpoint 11 Maggots End Road / Public Footpath 39-7 looking north west to south east.

Baseline

5.71 Viewpoint 11 is located at the low lying point along Maggot's End Road to illustrate the enclosed character of the local landscape around the site and illustrate lack of connectivity with the wider landscape. It also coincides with Public Footpath 39-7, which leads north across the site towards Brick House End. Views to the west terminate on the gently rising and smooth horizon punctuated by trees and electricity pylons. Blocks of woodland around the Stocking Pelham Substation, coupled with Pump Spring woodland prevent from gaining views north west towards the settlement of Stocking Pelham. Views are short to medium range. Views to the north follow a shallow fold in the landscape drained by field ditches, enclosed by the rising landform to the north and north east. Blaking's Lane and Battle's Wood mark this higher ground and enclose the site. The foreground comprises large scale arable fields, which form a buffer between the road and the site. The remaining part of the site is separated by internal field boundary hedgerows, hedgerow trees, and blocks of woodland/tree belts. Battle's Hall and Battle's Hall Barns are visible to the east and are enclosed by tree vegetation, which screens the rest of Maggot's End.

Sensitivity

5.72 Receptors along PRoWs are of high sensitivity with users along Maggot's End Road being medium.

Magnitude of Change

5.73 The proposed solar modules, associated with the eastern parcel would be located over 500m away, behind the vegetated Public Footpath 39-4 and first line of pylons seen in the background. Given the presence and height of the intervening vegetation and change in levels it is predicted that the solar modules located on

the higher ground near Battle's Wood would be considerably restricted, with views likely to be limited to their upper most parts only. . In views north, along Public Footpath 39-7, the low lying areas of solar modules along the western edge of the eastern parcel and those located in its northern part are likely to be visible in a relatively narrow angle of view, enclosed by hedgerows and tree canopies either side.

5.74

5.75 The focus of the receptors would be on the undeveloped foreground back clothed by blocks of woodland and hedgerow trees. The appreciation of the surrounding open countryside and vernacular architecture such as Battle's Hall would be retained. Whilst the increased offset from the vegetated Public Footpath 39-4 serves to reduce the inter-visibility, views into the western part of the parcel would continue to be gained. On that basis, the magnitude of change is assessed as low at Year 1. Once the proposed mitigation measures have matured, this is likely to diminish to negligible.

Scale of Effects

5.76 The proposed development would bring about minor adverse effects upon the road users and moderate adverse effects upon the PRoW users at Year 1. This would, however, reduce at Year 5 to negligible neutral.

Viewpoint 12 Public Footpath 39-8, south of Maggots End Road, looking north.

Baseline

5.77 Viewpoint 12 is located to the south of Viewpoint 11 and is of similar direction of view and character. The shallow valley, however, is more perceptible with the landscape rising to the left and right, enclosing the view. Pump Spring and hedgerow trees to the west terminate views with vegetation along Blaking's Lane almost completely screened by landform yet identifiable on the horizon. Battle's Wood can be seen to the right of the view and behind the roadside hedgerows along Maggot's End Road, near Battle's Hall. The central section of the road, however, is open and low lying with a low and neatly trimmed hedgerow visible to the right of the view. Battle's Hall and Battle's Hall Barns are screened by intervening hedgerows.

Sensitivity

5.78 Receptors along PRoWs are of high sensitivity.

Magnitude of Change

5.79 Views into the interior of the site are screened by the vegetated Public Footpath 39-4, which in this particular view, reads as a linear feature in the distance with tree canopies associated with Blaking's Lane punctuating the skyline.

5.80 The surrounding Pump Spring woodland, Battle's Wood, and internal hedgerows and hedgerow trees provide a strong sense of enclosure around the scheme, and the majority of the scheme would not be visible or evident. Receptors may gain views of the southern most edge of the eastern parcel, seen over the hedgerow associated with the aforementioned Public Footpath 39-4. The upper parts of the modules, would appear as a simple and linear element, following the horizontal pattern of field hedgerows. Due to the distance over 700m, increased as part of the design changes implemented in July 2022, the perception of the mass and scale would be considerably diminished and inconsequential. The scheme would not introduce any verticality or visual competition. The large scale pylon visible to the right of the view and near Battle's Wood, marks the approximate south eastern edge of the scheme with the land further to the right left undeveloped.

5.81 Whilst the visibility of the scheme would be very limited, as a precautionary approach, the magnitude of change is assessed as low at Year 1. At Year 5 this would reduce to negligible with the proposed planting almost completely screening the proposed scheme.

Scale of Effects

5.82 The proposed development would bring about a moderate adverse effect at Year 1 at most, diminishing to negligible neutral at Year 5.

<u>Viewpoint 13 Maggots End Road / Public Bridleway 39-12, south of Battle's Hall, looking north west to north east.</u>

Baseline

5.83 Viewpoint 13 is located along PRoW 39-12 / 39-5, in close proximity to the previously assessed Viewpoint 12, but sits slightly at approx. 104m AOD, some 7m higher. This more elevated location has been purposely selected as it forms a localised ridge, which is marked by a relatively tall and mature hedgerow (at approx. 2m height). This vegetation coupled with changes in landform separates the site from Manuden and Mallows Green, and indeed the southern and south eastern study area. Similarly to Viewpoint 12, the site is enclosed by blocks of woodland and gently rising landscape to the west and east. Views west and north

west terminate on the medium range horizon with the Stocking Pelham Substation visible amongst tree canopies. Views east terminate on the close range rising horizon with hedgerows and trees, and there is evident lack of any visual connectivity with the more distant landscape to the east.

Sensitivity

5.84 Receptors along PRoWs are of high sensitivity.

Magnitude of Change

5.85 Receptors at this location would gain a similar view to that assessed at Viewpoint 12, although it would be slightly more elevated. Despite the increase in elevation, views into the interior of the site are very restricted and the appreciation of the proposed scheme would be very limited. Some of the solar modules located along the southern edge of the eastern parcel would appear above the vegetated Public Footpath 39-4, which is identifiable in the view. The panels would be located behind the first line of pylons, some 150m away from the PRoW 39-4, which would further help diminish their height and massing.

5.86 The magnitude of change is assessed as low at Year 1. Once the mitigation measures have matured, however, this is likely to reduce to negligible at Year 5.

Scale of Effects

5.87 Based on the above the proposed development would result in moderate adverse effects at Year 1 diminishing to negligible neutral at Year 5.

Viewpoint 14 Minor road leading to Mallows Green/ Public Bridleway 39-12, looking north.

Baseline

5.88 Viewpoint 14 is located on the higher ground to the south of the site, near Mallows Green, at approx. 108m AOD. The SZTV indicates that the proposed development might be theoretically visible, and this viewpoint aims to illustrate this very limited inter-visibility. Mallows Green is screened by the intervening topography and vegetation with views north restricted and heavily filtered by field boundary hedgerows and trees. Tree canopies cloak the mid distance low lying landscape with the gently rising horizon lined with Pump Spring woodland and Battle's Wood. The water tower and the Stocking Pelham Substation come into the view, as one moves along this Public Bridleway 39-12. Views towards the site also include Battle's Hall but the distant landscape in the north eastern and eastern study area is not visible due to changes in the topography.

Sensitivity

5.89 Receptors along PRoWs are of high sensitivity.

Magnitude of Change

5.90 The proposed development would be considerably screened, even in winter months, with the majority of the scheme not visible at all, i.e., its western parcel and modules associated with the low lying wester edge and northern part of the eastern parcel. Based on the line of sight between this viewpoint and large scale pylons around Battle's Wood it transpires that only a small area of the eastern parcel would be visible from this location. The proposed panels would be located to the left of Battle's Wood and nearby large scale pylon. The higher ground seen against Battle's Wood falls outside of the site's boundaries and would remain undeveloped.

5.91 The southern edge of the eastern parcel would be located approximately 1.5km away and in a relatively narrow angle of view, interrupted by tree canopies, with the remaining part of the wide panorama unaffected. Given the distance and reduction in scale, following the pre-application advice from the Council, the massing and overall physical extent of the solar modules would be smaller than that proposed as part of the now refused planning application UTT/21/3356/FUL.

5.92 Based on the above the magnitude of change would be negligible at Year 1 and Year 5.

Scale of Effects

5.93 The proposed development would bring about m negligible neutral at Year 1 and Year 5.

<u>Viewpoint 15 Maggot's End, Maggot's End Road, looking north west.</u>

Baseline

5.94 This location has been selected to illustrate views from Maggot's End and can be used as a proxy view for residential receptors. The foreground is characterised by neatly trimmed roadside hedgerows with built form and garden vegetation interrupting views towards the site. Battle's Wood is seen on the higher ground and above the roadside hedgerow, but the majority of the site is screened.

Sensitivity

5.95 Receptors traveling along Maggot's End Road are of medium sensitivity.

Magnitude of Change

5.96 Due to changes in levels, intervening built form and vegetation the eastern parcel would be almost completely screened with receptors potentially gaining glimpsed views of the upper parts of the solar modules, seen in the context of large scale pylons.

5.97

5.98 The proposed development would be seen in a relatively narrow angle of view and in the context of large scale electricity pylons which would deflect attention. The intervening tree canopies associated with Battle's Hall Barns would help interrupt views of the proposed panels, thus reducing their visual influence. It is also important to note that this view would be gained in transition and is very oblique, with the roadside hedgerow likely to restrict views for the majority of the travelling receptors. On that basis the magnitude of change is assessed as negligible at Year 1 and likely to remain negligible at Year 5.

Scale of Effects

5.99 The proposed development would bring about a negligible neutral effect at Year 1 and at Year 5.

Viewpoint 16 SUSTRANS No.11 / Brixton Lane, looking west.

Baseline

5.100 Viewpoint 16 has been purposely selected to verify the SZTV and prove the very limited inter-visibility between the site and the study area to the east. Brixton Lane follows the undulating landform and, in parts, is enclosed by roadside vegetation with views towards the site limited by the direction of travel. The identified viewpoint offers relatively unrestricted views towards the site. The valley of the River Stort forms the low lying mid range landscape with the landform climbing and marked by Battle's Wood. The more distant western study area is not visible. Properties in Maggot's End can be seen on the upper slopes, to the left of the view. Manuden Road can be easily identified on the lower slopes and coincides with SUSTRANS No.11, which continues north along this road, via Manuden.

Sensitivity

5.101 Receptors along SUSTRANS are of high sensitivity.

Magnitude of Change

5.102 Battle's Wood and vegetation along Blaking's Lane screen the interior of the site. There is evident lack of any visual connectivity between this area and the site. The tree canopies, visible above the brow of the hill, have been identified as Pump Spring, and prove the lack of inter-visibility with the western part of the site. It is worth reiterating that none of the previously described built form around the site such as Battle's Hall Barns or that in Brick End House, is visible in this view. Following the recent design changes, with the scale of the eastern parcel reduced, it is unlikely that the proposed infrastructure would be perceptible and any introduced change would be inconsequential to the visual amenity. The magnitude of change is assessed as negligible at Year 1 and Year 5.

Scale of Effects

5.103 The introduction of the proposed development would result in negligible neutral effects at Year 1 and Year 5.

Public Highways

5.104 None of the public highways within the study area, with the exception of the Maggots End Road between East End and Maggots End, offer any direct or unrestricted views towards the 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 site. The road between East End and Maggots End, therefore, is the only relevant public highway.

5.105 As one leaves East End, the landform gently slopes east towards a local watercourse, but views are strongly enclosed by roadside hedgerows and trees with the road changing its alignment several times. There is lack of any inter-visibility with the site until the road reaches a locally higher ground, marked on the OS Explorer map as 117m AOD – refer to Viewpoint 5. Views of the western parcel are partially restricted by the site's field boundary trees and hedgerow, 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. 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 site become oblique to very oblique with the southern edge of the proposed development screened or considerably restricted by the boundary hedgerows and trees – refer to Viewpoint 11. The vegetated Public Footpath 39-4 serves to screen parts of the site and would restrict views of the

introduced infrastructure. As one approaches Battles Hall, to the south east of the site, the road becomes enclosed by hedgerows again, and views become very restricted – refer to Viewpoint 15.

5.106 In terms of views from the more open and central section of Maggot's End Road, i.e., towards the site's southern edge, these would be considerably restricted or 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. 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.

5.107 To reiterate, no other public highways have been considered relevant or offering views towards the site.

Public Rights of Way

5.108 The above carried out assessment includes views from the nearby PRoWs and the assessed static views provide a suitable evidence in terms of potential visual effects upon these linear receptors.

5.109 As described in Section 2 of this LVIA, Public Footpath 39-4, 39-34, 5-14 and 5-15, cross the site and these PRoWs would be enclosed 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 site: 5-57, 5-25, 5-12, and 39-3 would also be subject to a high magnitude of change at Year 1.

5.110 The proposed Landscape Strategy addressed this with the existing vegetation reinforced and gaps planted up. The PRoWs that abut the site would be enclosed 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 curtailed by the new hedgerows and improved existing hedgerows, and the visual amenity of PRoW receptors would be protected. In such 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 giving the substantial landscape proposals.

5.111 In addition to the above listed PRoWs other routes that are located to the south west and south of the 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 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 recent reduction in scale of the proposed scheme. 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

5.112 A detailed assessment of views from residential properties has been excluded from this LVIA as these are considered to be private views. The scope of work of this LVIA did not include a Residential Visual Amenity Study, but the issue of residential receptors is covered, in broad terms, in the following paragraphs. The assessment is based on the site visit and level of inter-visibility as observed from within the site and nearby PRoWs towards the nearby properties. Photographs towards these properties have not been included in this LVIA due to privacy concerns and the assessment is based on onsite observations.

5.113 Based on the site visit it transpires that residents of Battle's Hall benefit from a strong sense of enclosure provided by the garden vegetation and a relatively high brick wall that encloses part of their curtilage to the west. Therefore, the garden wall and vegetation would screen views from the garden area and ground floor windows. There may be some restricted and filter views from the upper floor but due to lack of access the nature of these views was not confirmed. In any case, such views would be restricted and would overlook the site with the eye travelling further west.

5.114 Receptors at Battle's Hall Barns may potentially gain some views towards the south eastern edge of the site. The built form, however, includes single storey buildings along its western edge, enclosed by an approx. 1.5m hedgerow. Thus, views from the ground floor would be considerably restricted with the magnitude of change considered low at Year 1 and effects moderate adverse at most. These would

diminish at Year 5 to negligible neutral. The roofscape of this single storey building screens the taller buildings located in the northern and eastern part of Battle's Hall Barns. 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.

5.115 In terms of Brick House End Cottages No.1 and No.2, based on the assessment of Viewpoint 7 the scale of effects at Year 1 would be major adverse reducing to moderate adverse at Year 5. It is important to note, however, that with time these effects would reduce further. Once the proposed hedgerow trees and tree belt fully matures, the effects are likely to be negligible neutral.

5.116 The remaining residential receptors within Brick House End are considered to have their views either completely screened or considerably restricted. Brick House is set within its own relatively large and enclosed setting, and views from the nearby PRoWs towards this dwelling have not been gained when carrying out the onsite assessment. It is therefore predicted that the residents of Brick House would experience a negligible magnitude of change with effects also negligible neutral at Year 1.

5.117 With regard to the residents of Rose Garth their ground floor views would be interrupted by the roadside vegetation that forms the foreground to their eastward aspect. In addition, the site's boundary vegetation would further screen or interrupt the views of the proposed panels. It is predicted that the magnitude of change upon the residents of Rose Garth would be low at Year 1, resulting in moderate adverse effects at Year 1. Such effects are likely to diminish as the site's boundary vegetation matures further.

Summary of Visual Effects

5.118 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 would be close to very close range, often located within the site or near 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.

Table 1 Summary Table - Visual Assessment (Winter Views)

Visual Receptor	Value of View (Low / Medium / High)	Susceptibility of Visual Receptor (Low / Medium / High)	Sensitivity of Visual Receptor (Low / Medium / High)	Change to View (Year 1)	Degree of Effect (Year 1)	Change to View (Year 5)	Degree of Effect (Year 5)
Viewpoints							
Viewpoint 1	Medium	High	High	Medium	Major Adverse	Low	Moderate Adverse
Viewpoint 2	Medium	High	High	High	Major Adverse	Low	Moderate Adverse
Viewpoint 3	Medium	High	High	High	Major Adverse	Low	Moderate Adverse
Viewpoint 4	Medium	High	High	High	Major Adverse	Low	Moderate Adverse
Viewpoint 5	Medium	Medium	Medium	High	Major Adverse	Low	Minor Adverse
Viewpoint 6	Medium	High	High	Low	Moderate Adverse	Negligible	Negligible Neutral
Viewpoint 7	Medium	High	High	Medium	Major Adverse	Low	Moderate Adverse
Viewpoint 8	Medium	Medium	Medium	Low	Minor Adverse	Negligible	Negligible Neutral
Viewpoint 9	Medium	High	High	Medium	Major Adverse	Negligible	Negligible Neutral
Viewpoint 10	Medium	High	High	Low	Moderate Adverse	Negligible	Negligible Neutral
Viewpoint 11	Medium	High	High	High	Major Adverse	Low	Moderate Adverse
	Medium	Medium	Medium				Minor Adverse
Viewpoint 12	Medium	High	High	Low	Moderate Adverse	Negligible	Negligible Neutral

Viewpoint 13	Medium	High	High	Low	Moderate Adverse	Negligible	Negligible Neutral
Viewpoint 14	Medium Medium	High Medium	High Medium	Negligible	Negligible	Negligible	Negligible Neutral
Viewpoint 15	Medium	Medium	Medium	Negligible	Negligible Neutral	Negligible	Negligible Neutral
Viewpoint 16	Medium	High	High	Negligible	Negligible Neutral	Negligible	Negligible Neutral
Road Users							
Maggots End Road (central section only)	Medium	Medium	Medium	Low to Negligible	Moderate Adverse to Negligible Neutral	Negligible	Negligible Neutral
PRoW Users							
39-7, 39-4, 39-34, 5-14 and 5-15	Medium	High	High	High	Major Adverse	Low to Negligible	Moderate Adverse to Negligible Neutral
39-37, 5-12, 5-75, and 39-3	Medium	High	High	High	Major Adverse	Low to Negligible	Moderate Adverse to Negligible Neutral
39-8, 39-12, 39-11	Medium	High	High	Low to Negligible	Moderate Adverse to Negligible Neutral	Negligible	Negligible Neutral
39-5	Medium	High	High	Low	Moderate Adverse	Negligible	Negligible Neutral
Residential Receptors (ground floor – assumed views)							
Brick House End Cottages	Medium	High	High	High	Major Adverse	Low to Negligible	Moderate Adverse Negligible Neutral

No. 1 and No. 2							
Brick House	Medium	High	High	Negligible	Negligible Neutral	Negligible	Negligible Neutral
Rose Garth	Medium	High	High	Low	Moderate Adverse	Negligible	Negligible Neutral
Brick House End (in general)	Medium	High	High	Negligible	Negligible Neutral	Negligible	Negligible Neutral
Battle's Hall Barns	Medium	High	High	Low	Moderate Adverse	Negligible	Negligible Neutral
Battle's Hall	Medium	High	High	Negligible	Negligible Neutral	Negligible	Negligible Neutral
Maggot's End (in general)	Medium	High	High	Negligible	Negligible Neutral	Negligible	Negligible Neutral

6. CONCLUSIONS

6.1 Pegasus Group have been commissioned by Low Carbon Solar Park 6 Limited to prepare a Landscape and Visual Impact Assessment (LVIA) in support of a planning application for the Pelham Spring Solar Farm near Maggot's End. The layout of the scheme has been informed by Pegasus' preliminary assessment and incorporates a number of built in mitigation measures.

Effects on Landscape Elements

6.2 The proposed development would have a minor beneficial effect upon the grassland of the site, due to the change from ephemeral arable crop to permanent pastures. With regard to the hedgerow and tree resource the proposals would bring about major beneficial effect. Due to light footprint of the proposed development, the effects upon the site's topography would be negligible neutral. Other landscape features, such as water features and PRoWs would be retained and would not be affected.

Effects on Landscape Character

6.3 Following the pre-application advice received from the Council in June 2022, the proposed development has been re-designed to further reduce its physical extent and level of inter-visibility with the nearby PRoWs and surrounding landscape. 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 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. 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.

6.4 The assessment has concluded that the proposed development would result in 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).

6.5 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.

Effects on Visual Amenity

6.6 Based on the viewpoint assessment and site visits it has transpired 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. Therefore visual receptors associated with the majority of the study area would not be affected.

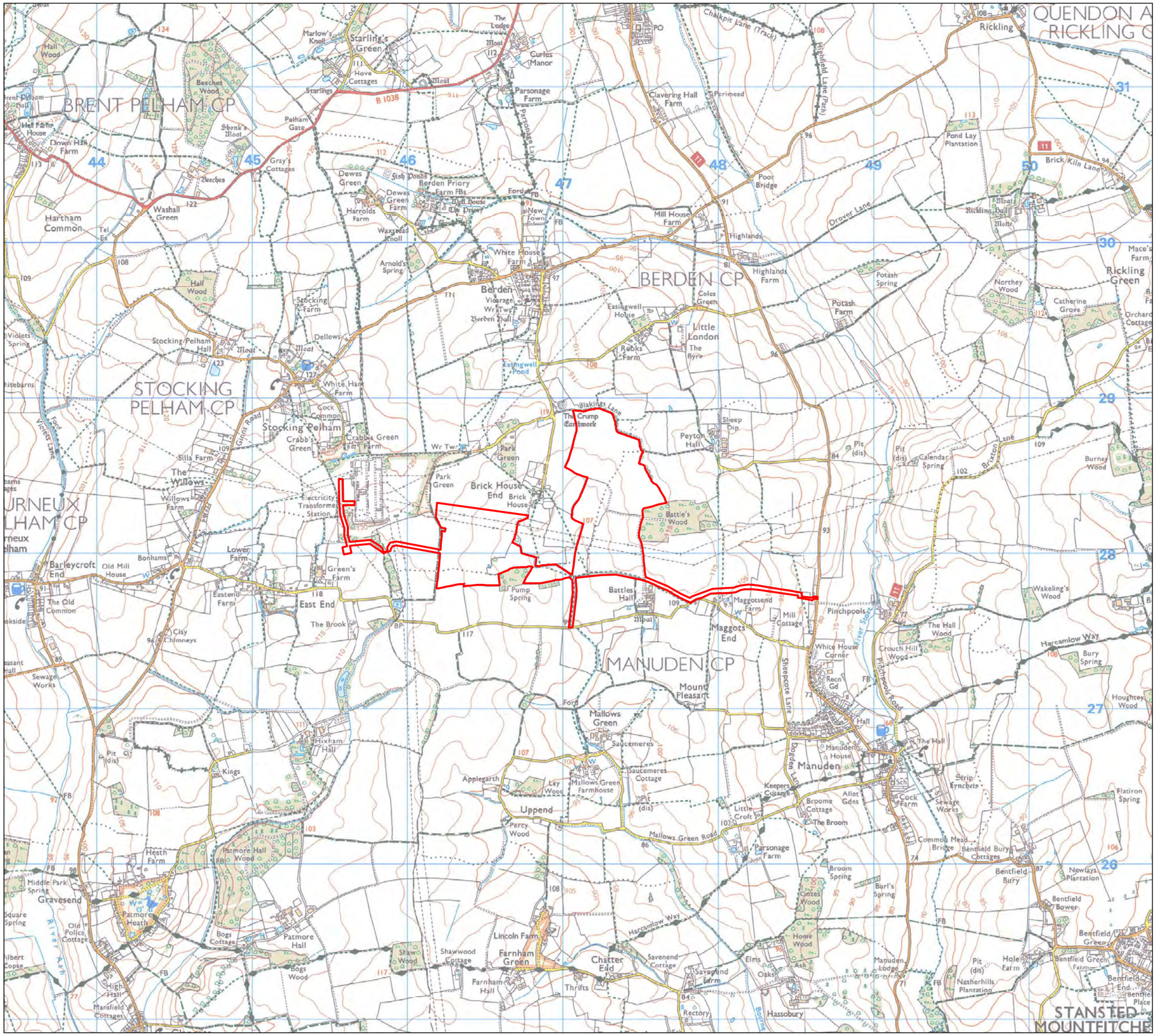
6.7 The identified and assessed visual receptors therefore represent close to very close receptors, often located within the site or near its perimeter. The predicted visual effects are therefore high or medium at year 1 for a number of these receptors. It is important to stress, however, that the built in mitigation measures and planting proposal help achieve a relatively low degree of change, in visual terms. Out of 16 no of viewpoints only 6 of them have been assessed as subject to moderate adverse effects at Year 5 due to very close proximity and high sensitivity of receptor.

Conclusions

6.8 The proposed development could be effectively integrated and assimilated into the surrounding landscape. The combination of undulating topography and strong landscape framework around the site 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.

FIGURE 1

SITE LOCATION PLAN



DESIGN | ENVIRONMENT | PLANNING | ECONOMICS | HERITAGE

KEY

Site Boundary

Revisions:
First Issue- 12/06/2020 JS
A - (30/03/2021 JS) Revised boundary
B - (03/09/2021 AD) Revised boundary

Site Location Plan

Pelham Spring Solar Farm

Client:	Low Carbon Ltd		
DRWG No:	**P20-1300_02**	Sheet No: **-**	REV: **B**
Drawn by:	AD	Approved by:	RCH
Date:	03/09/2021		
Scale:	1:25,000 @ A3		

Pegasus Environment

FIGURE 2

LANDSCAPE STRATEGY

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

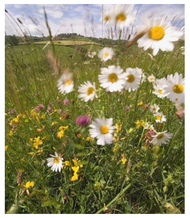
Proposed Hedgerow Planting Planting

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
- Grazing Seed Mix to Panel Compounds — Grazing mixture suitable for sheep grazing
- Meadow Seed Mix — Meadow mixture suitable for clay soils
- Areas for reptiles — Existing grass to be retained and appropriately managed as tussock grass for ecological benefit
- Area for Skylark conservation — Meadow mixture suitable for clay soils
- Proposed Hedgerow Planting
- Proposed Small-Scale Tree Planting
- Proposed Legacy Large-Scale Tree Planting
- Proposed Woodland / Tree Belt Planting

DESIGN | ENVIRONMENT | PLANNING | ECONOMICS | HERITAGE

Revisions:
First Issue- 12/03/2021 JS
A - (31/03/2021 IHW) Revised PV layout
B - (01/04/2021 IHW) Revised following client comments
C - (09/04/2021 ARW) Revised following comments
D - (13/04/2021 ARW) Amended to revised layout
E - (08/09/2021 IHW) Revised PV layout, proposals amended to suit
F - (14/09/2021 IHW) Amended following internal comments
G - (15/09/2021 IHW) Amends to key
H - (01/10/2021 IHW) Secondary compound removed
J - (03/08/2022 LDI) Layout update
K-(11/08/2022 LDI Minor changes to client comments
L-(12/08/2022 IHW) Additional legacy tree planting added to southern boundary and additional labels added
M-(18/08/2022 IHW) Tree removals and skylark mitigation adjusted

0 100m

N

Landscape Strategy
Pelham Spring Solar Farm

Client: Low Carbon Ltd

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

Drawn by : IHW Approved by: IHW

Date: 18/08/2022

Scale: 1:2500 @ A1

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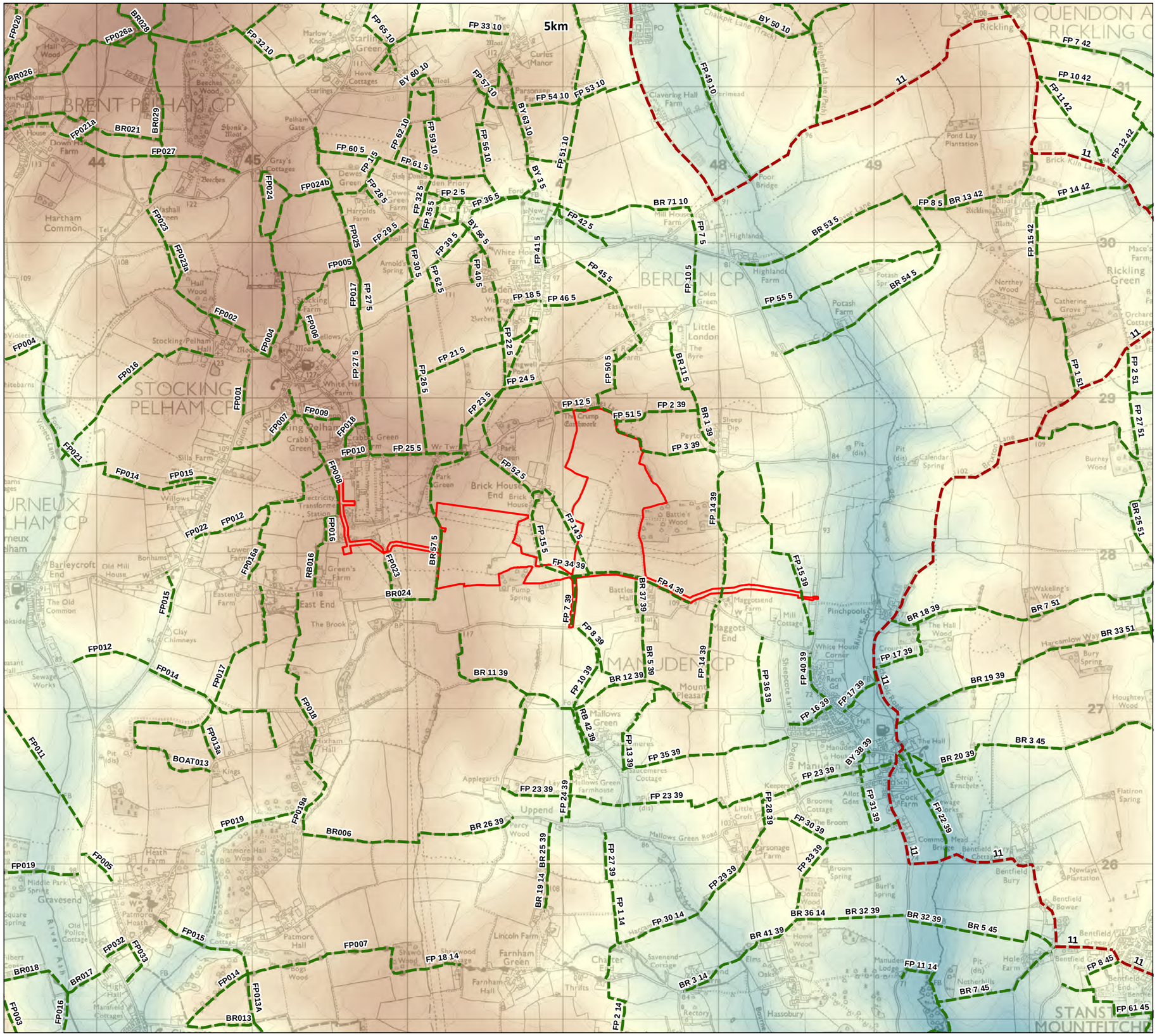
FIGURE 3

TOPOGRAPHY AND VISUAL RECEPTORS PLAN



KEY

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

DTM (metres above ordnance datum)

High : 134.51

Low : 63.5642

DESIGN | ENVIRONMENT | PLANNING | ECONOMICS | HERITAGE

Revisions:
First Issue- 15/02/2021 AD
A - (25/02/2021 JS) Revised boundary
B - (03/09/2021 AD) Revised boundary

Topography & Visual Receptors Plan

Pelham Spring Solar Farm

Client:	Low Carbon Ltd		
DRWG No:	**P20-1300_03**	Sheet No: **-**	REV: **B**
Drawn by:	AD	Approved by:	RCH
Date:	03/09/2021		
Scale:	1:25,000 @ A3		

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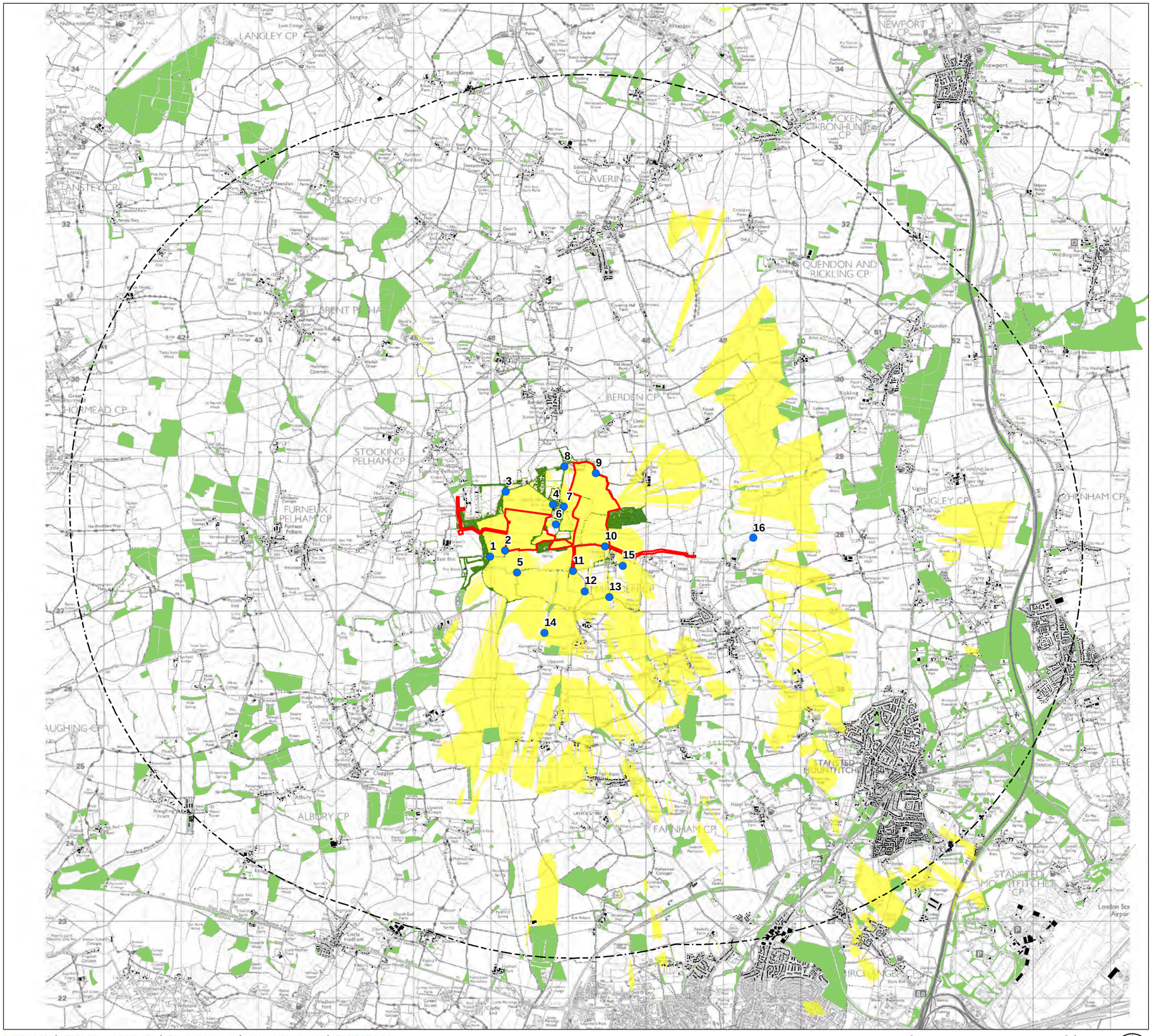
FIGURE 4

SCREENED ZTV AND VIEWPOINT LOCATIONS PLAN



KEY

- Site Boundary
- 5km Buffer
- OS Open Map Local Building
- OS Open Map Local Woodland
- National Tree Map Data (2019)
- Zone of Theoretical Visibility - 3m Development Height
- 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 datsets 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 bbeyond 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.

Revisions:
First Issue- 04/06/2020 JS
A - (29/03/2021 AD) Revised boundary and SZTV re-run
B - (03/09/2021 AD) Revised boundary and SZTV re-run
C - (28/07/2022 CR) Revised scheme and SZTV re-run

Screened Zone of Theoretical Visibility and Viewpoint Location Plan

Pelham Spring Solar Farm

Client:	Low Carbon Ltd		
DRWG No:	**P20-1300_01**	Sheet No: **-**	REV: **C**
Drawn by:	CR	Approved by:	RCH
Date:	28/07/2022		
Scale:	1:50,000 @ A3		

Pegasus Environment

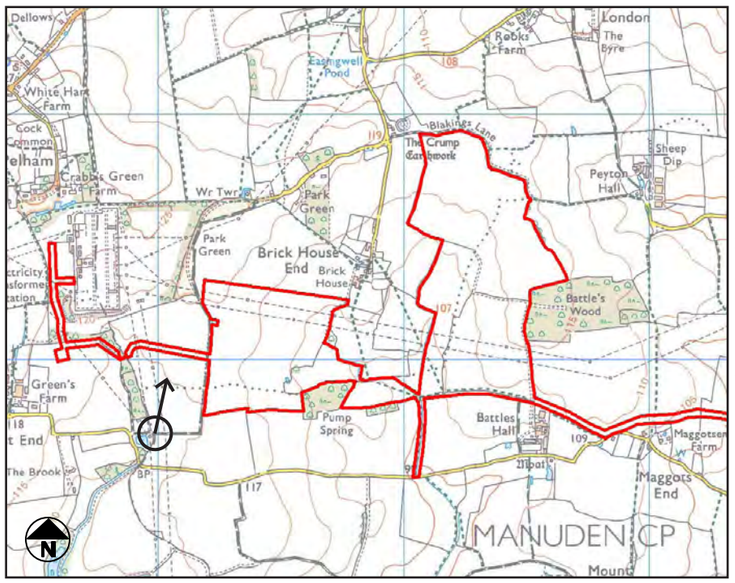
DESIGN | ENVIRONMENT | PLANNING | ECONOMICS | HERITAGE

FIGURE 5

BASELINE PANORAMAS AND PHOTOVIEWS

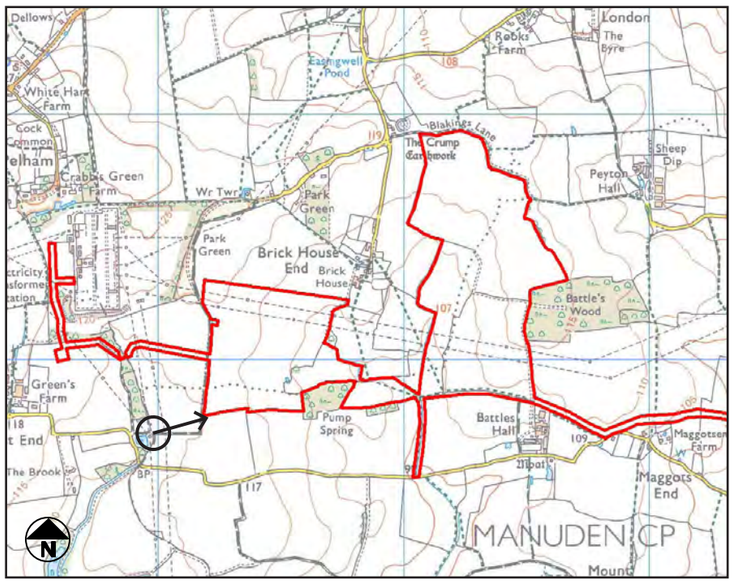
CONTEXT BASELINE VIEWPOINT 1A

Public Bridleway 024, between East End and the site, looking north east to east.



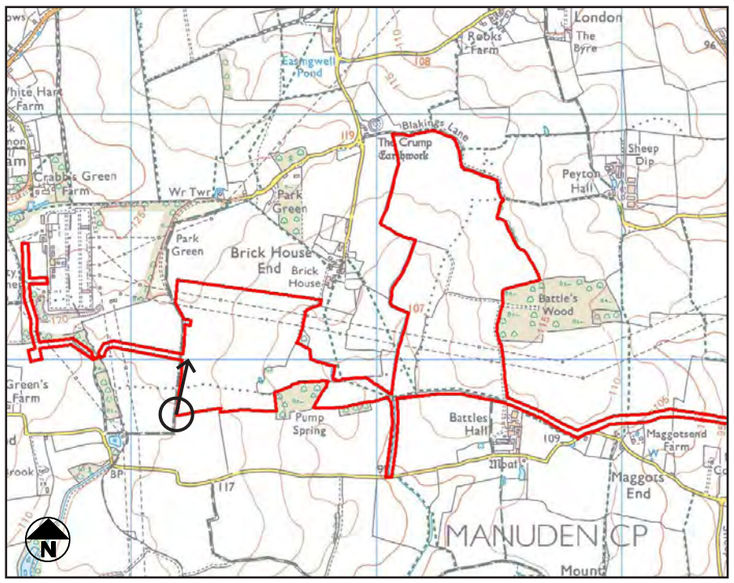
CONTEXT BASELINE VIEWPOINT 1B

Public Bridleway 024, between East End and the site, looking north east to east.



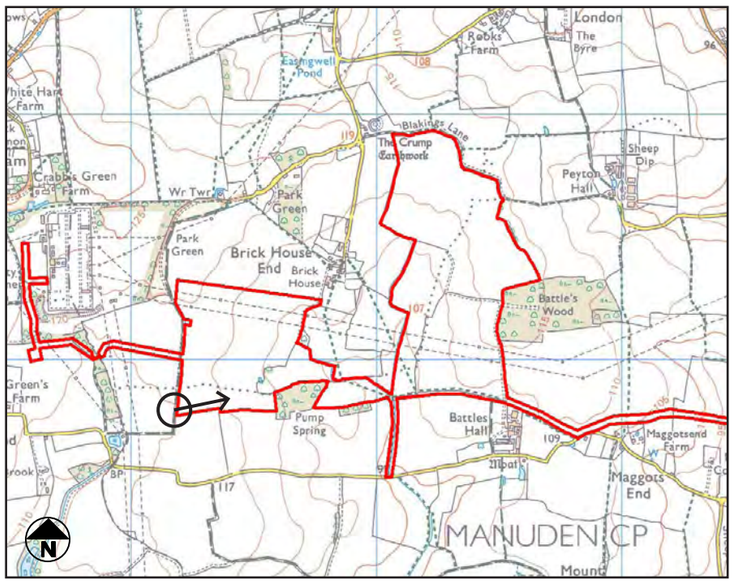
CONTEXT BASELINE VIEWPOINT 2A

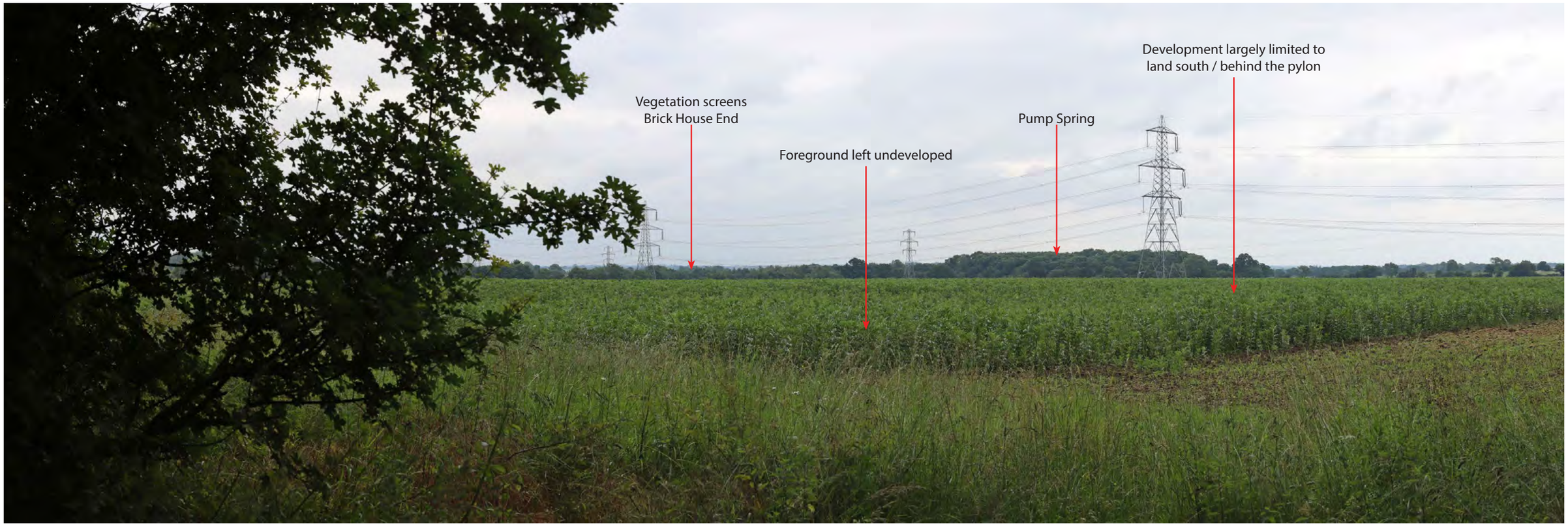
Public Bridleway 57-5, south western corner of the site, looking north to east.



CONTEXT BASELINE VIEWPOINT 2B

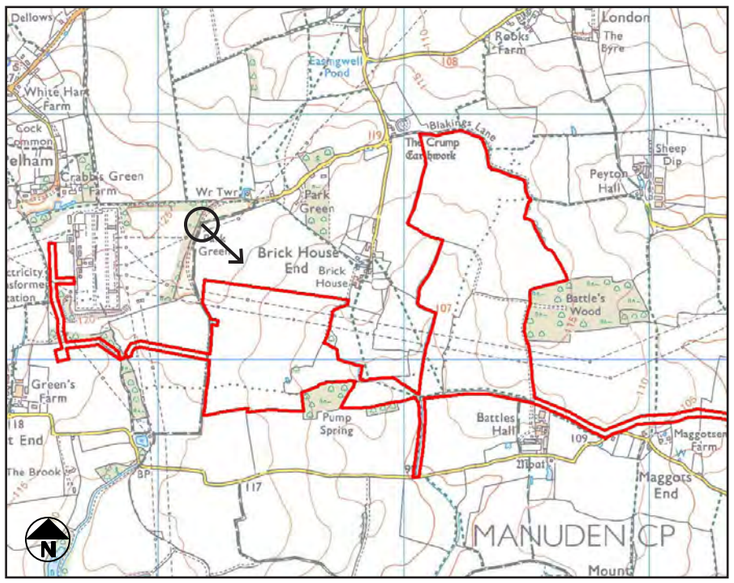
Public Bridleway 57-5, south western corner of the site, looking north to east.





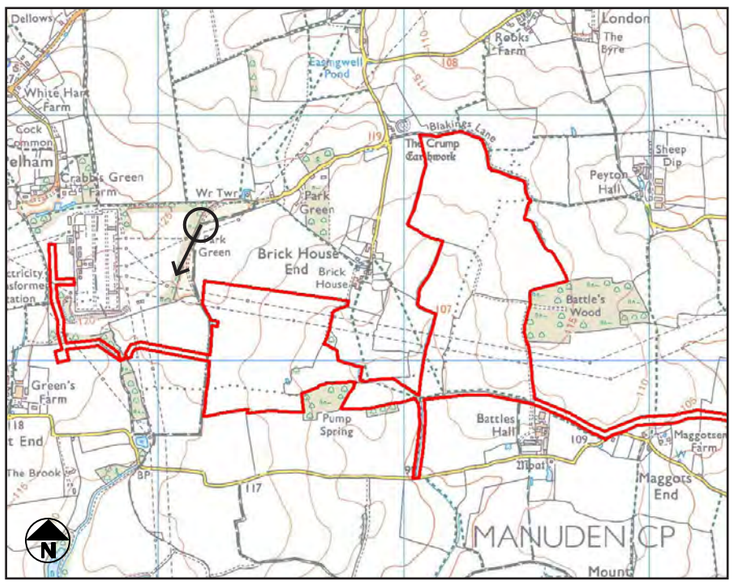
CONTEXT BASELINE VIEWPOINT 3A

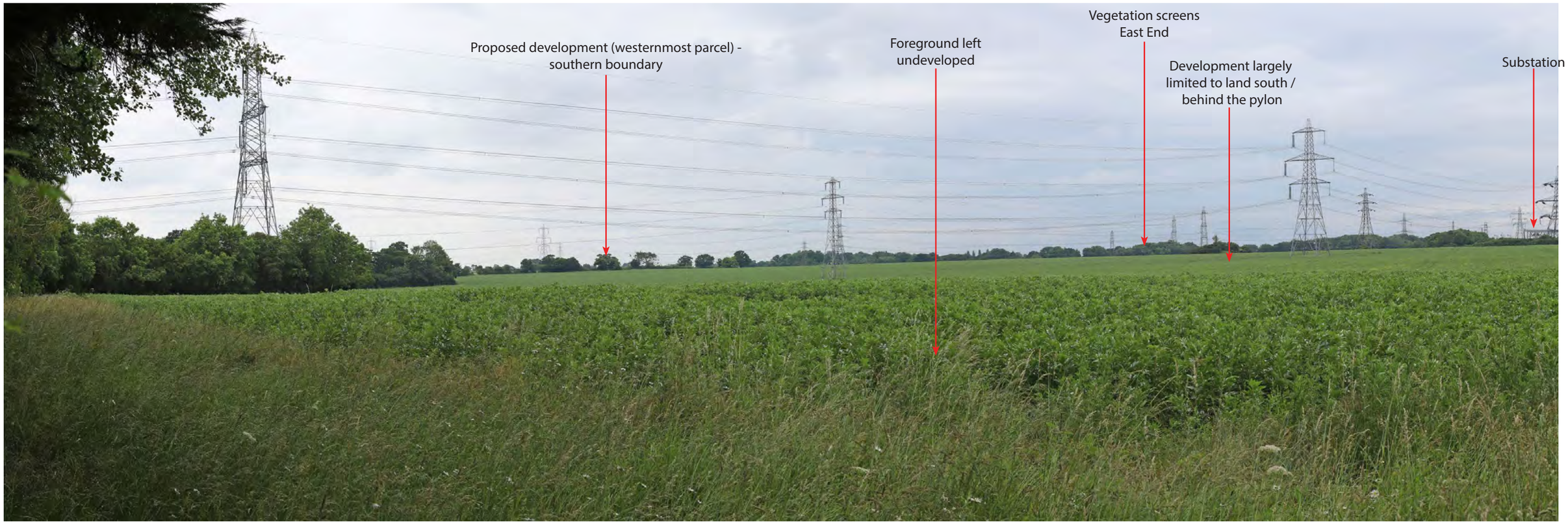
Public Bridleway 57-5, south west of the site at Park Green, looking south to south east.



CONTEXT BASELINE VIEWPOINT 3B

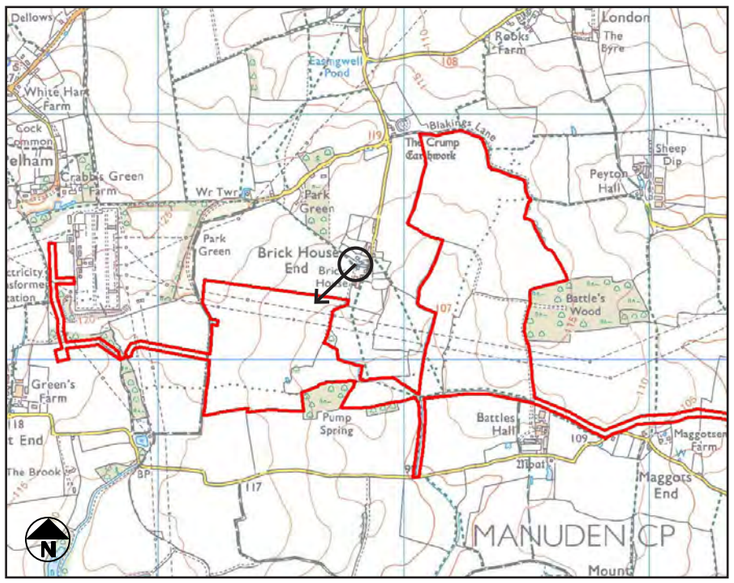
Public Bridleway 57-5, south west of the site at Park Green, looking south to south east.

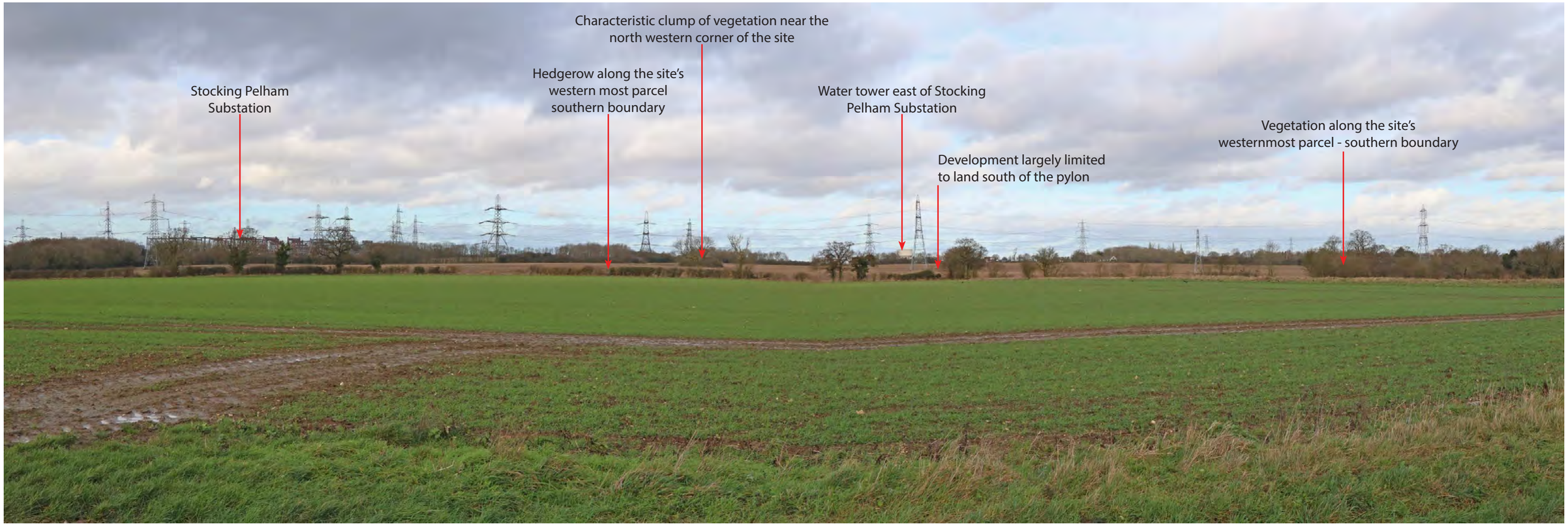




CONTEXT BASELINE VIEWPOINT 4

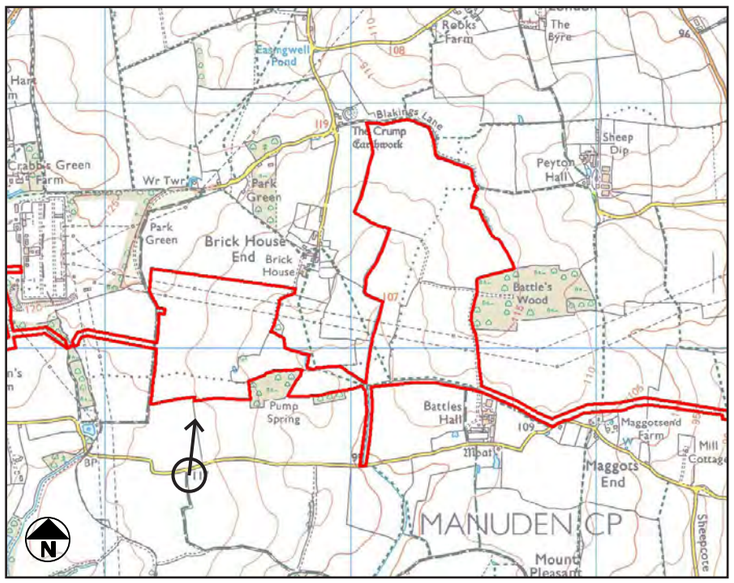
Public Footpath 52-5, near north western edge of Brick House End, looking south west.

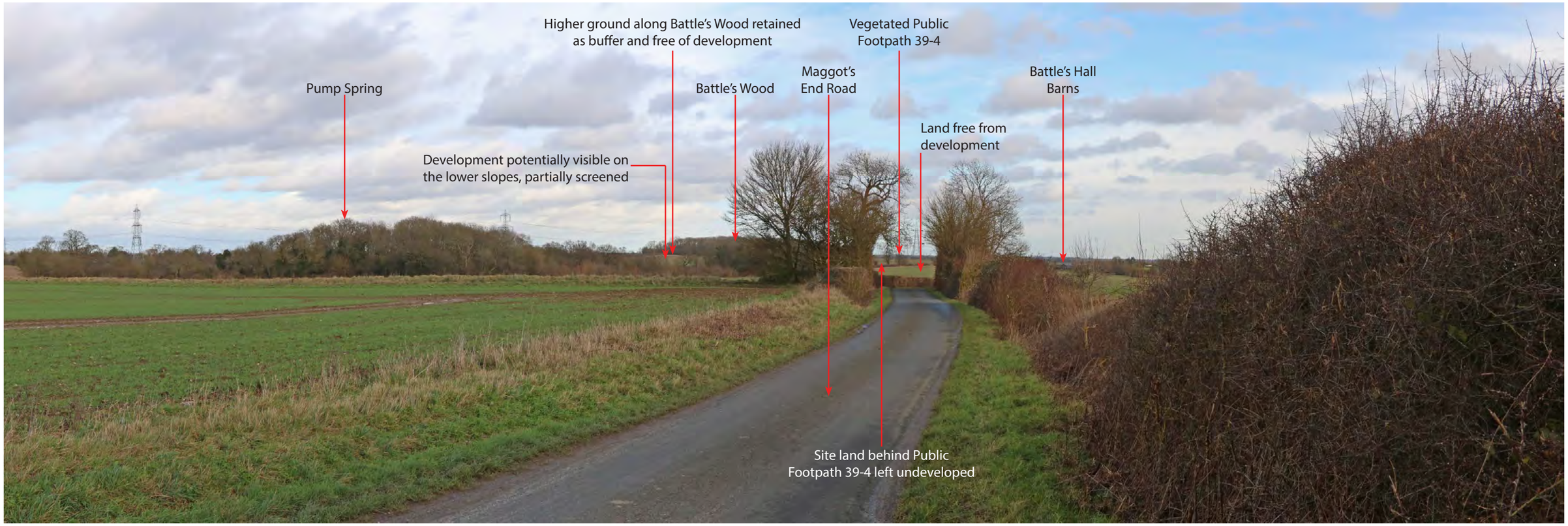




CONTEXT BASELINE VIEWPOINT 5A

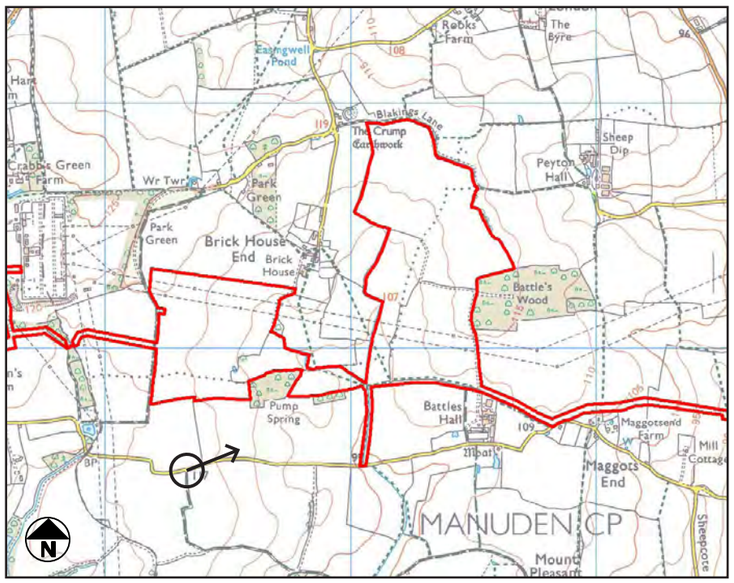
Maggots End Road / Public Bridleway 39_11 looking north to east

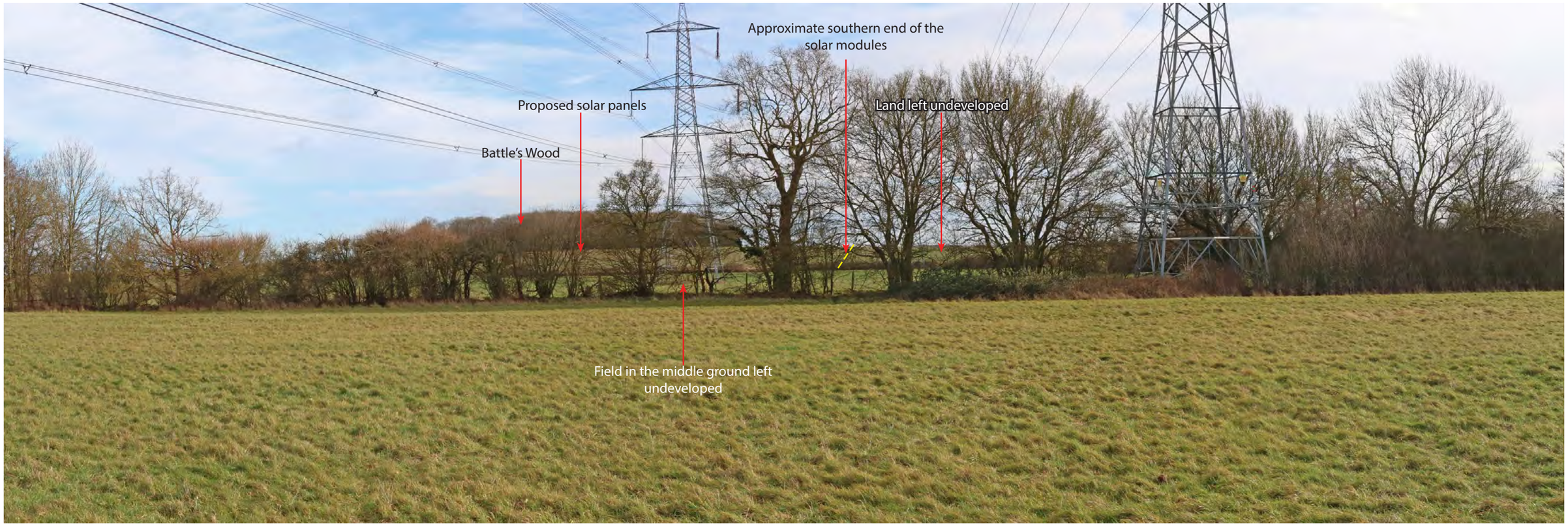




CONTEXT BASELINE VIEWPOINT 5B

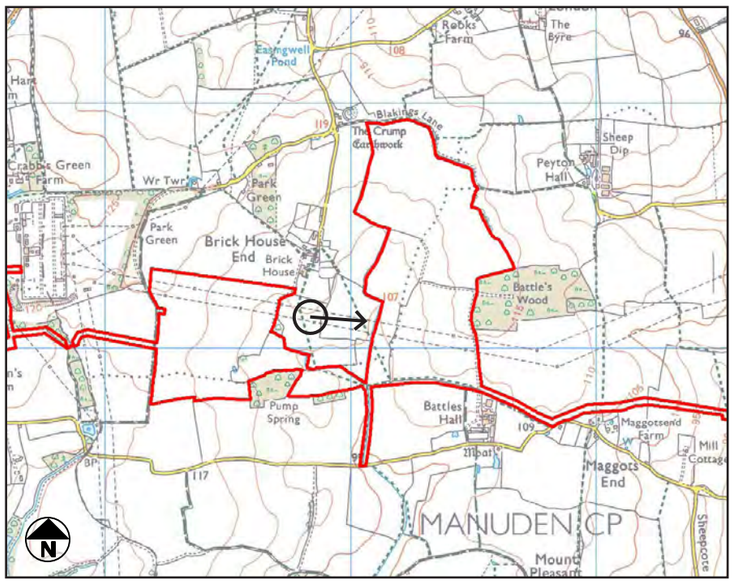
Maggots End Road / Public Bridleway 39_11 looking north to east





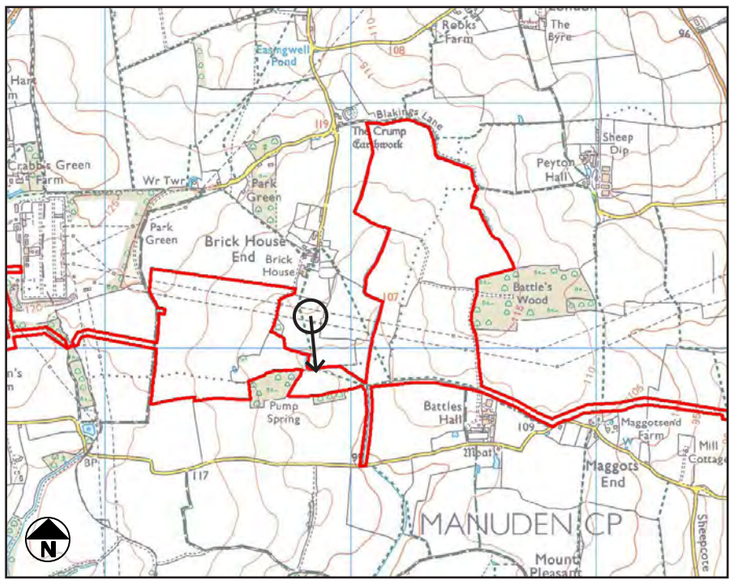
CONTEXT BASELINE VIEWPOINT 6A

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



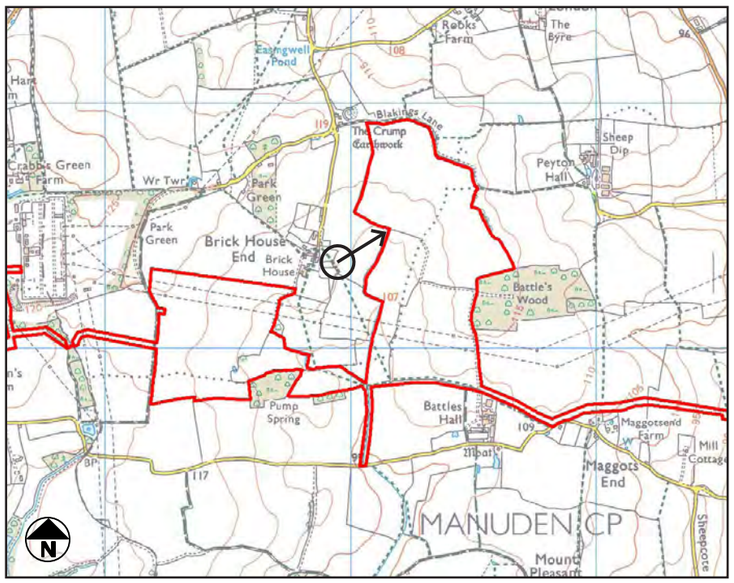
CONTEXT BASELINE VIEWPOINT 6B

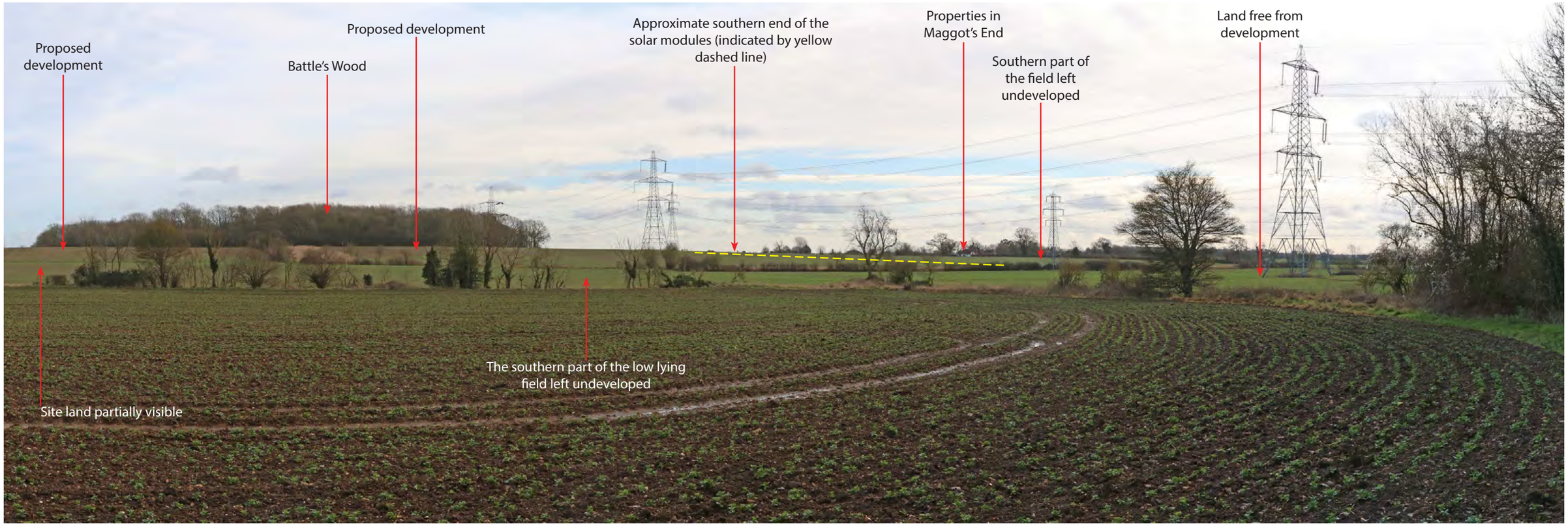
Public Footpath 5_15, south of Brick House End, looking south.



CONTEXT BASELINE VIEWPOINT 7A

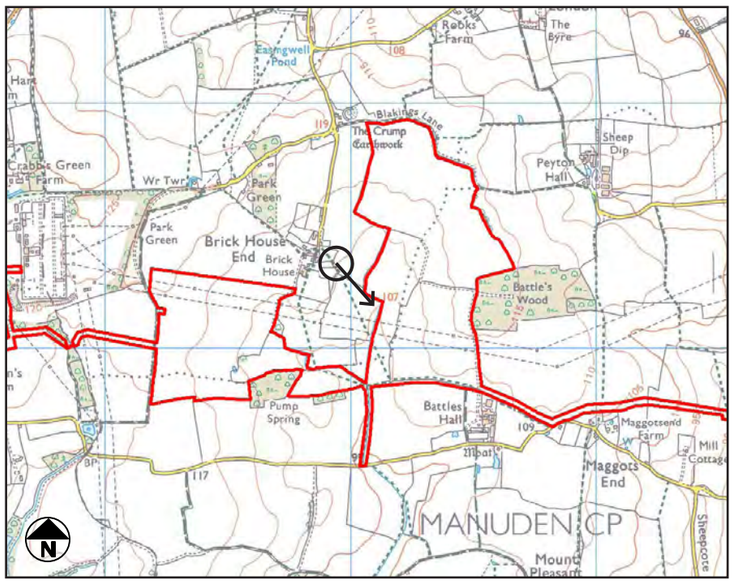
Public Footpath 5_14, eastern edge of Brick House End, looking north to south east.





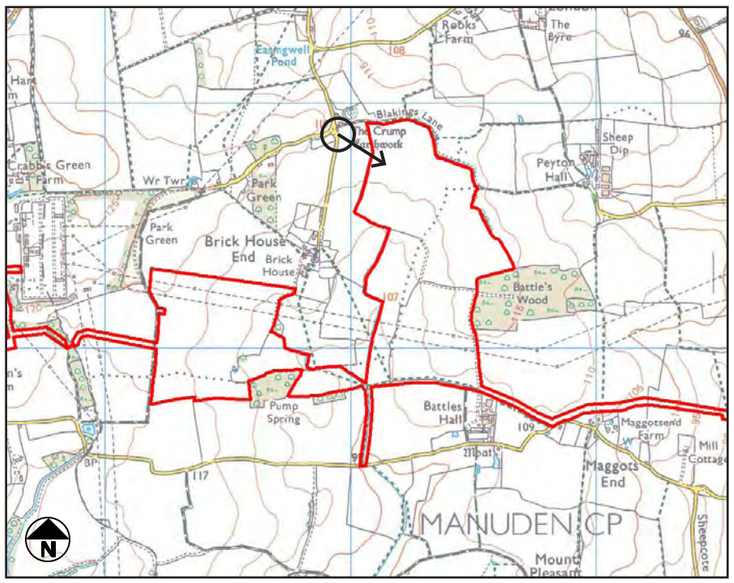
CONTEXT BASELINE VIEWPOINT 7B

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



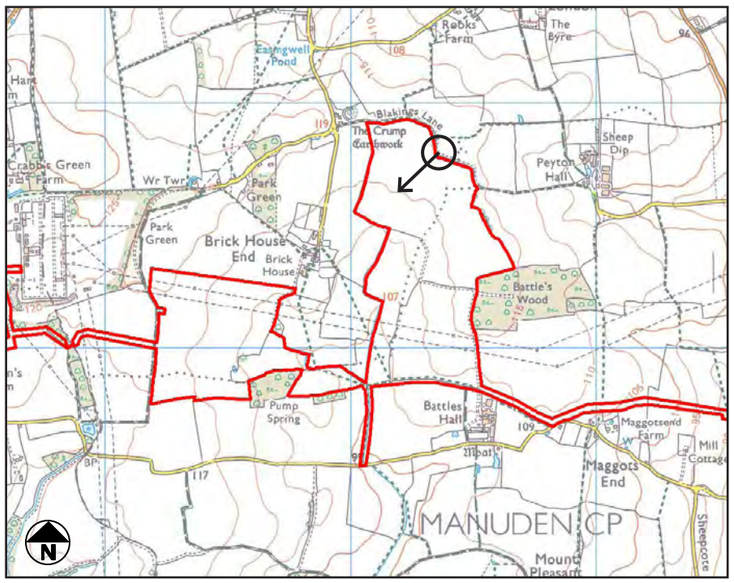
CONTEXT BASELINE VIEWPOINT 8

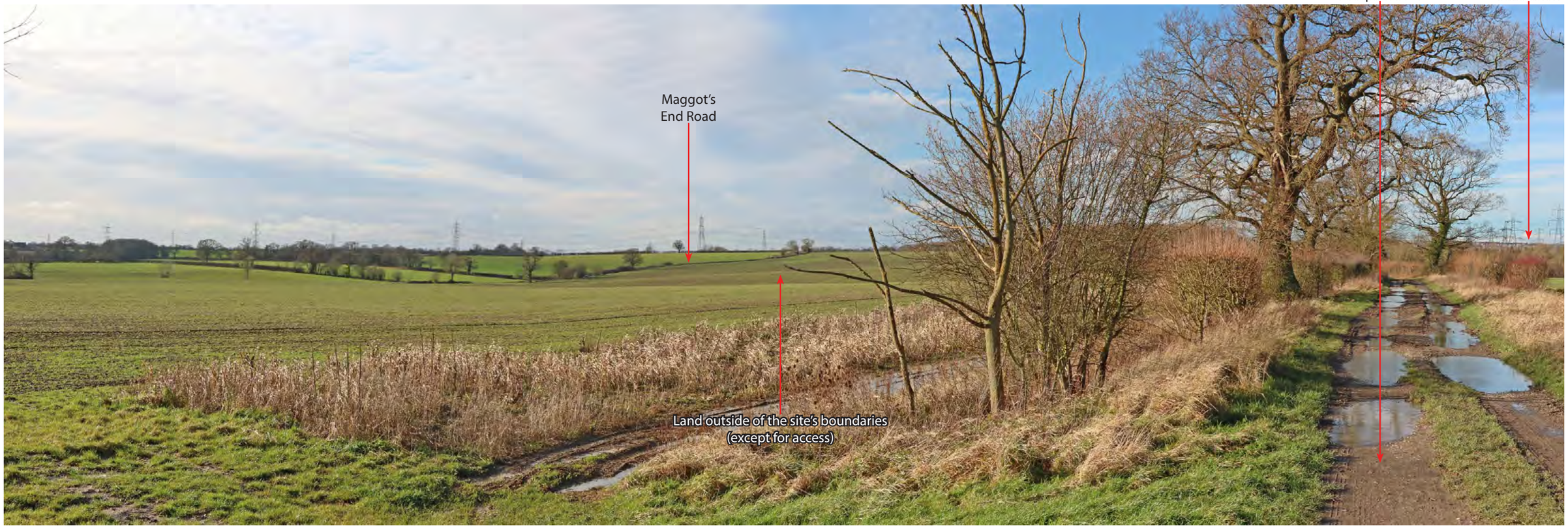
Minor road leading south to Brick House End, near The Crump, looking south east to south.



CONTEXT BASELINE VIEWPOINT 9

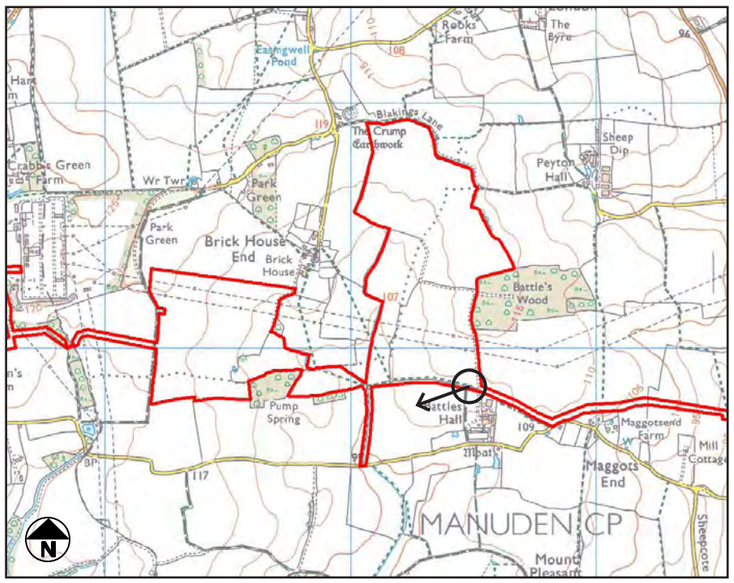
Blaking's Lane, Public Footpath 39_3, looking south west.





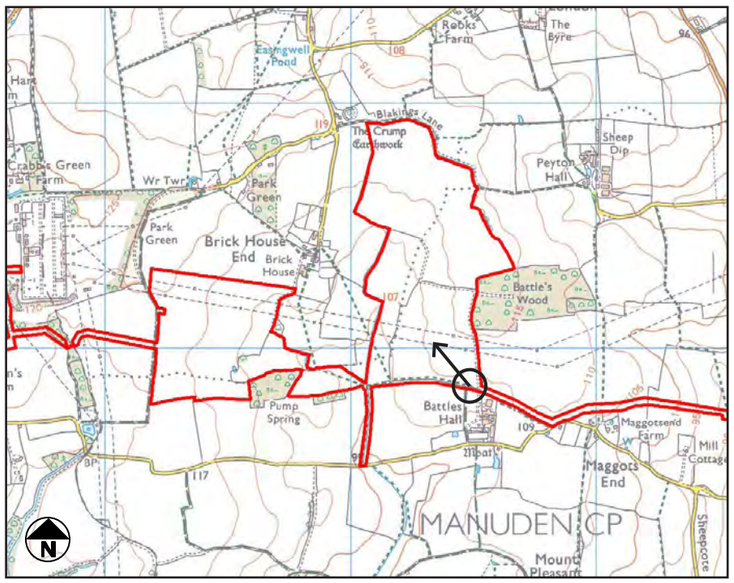
CONTEXT BASELINE VIEWPOINT 10A

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



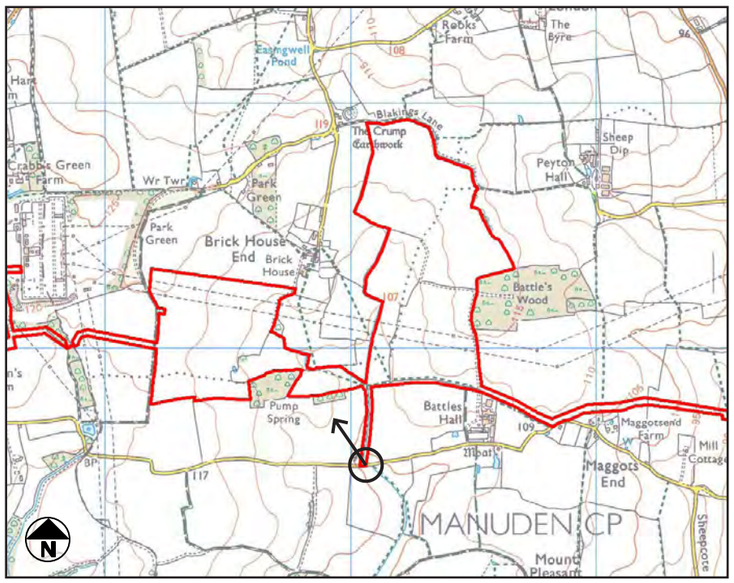
CONTEXT BASELINE VIEWPOINT 10B

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



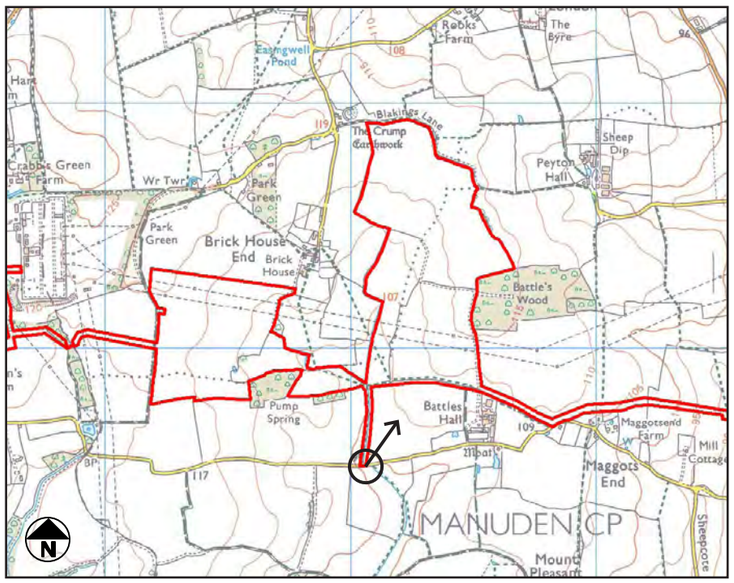
CONTEXT BASELINE VIEWPOINT 11A

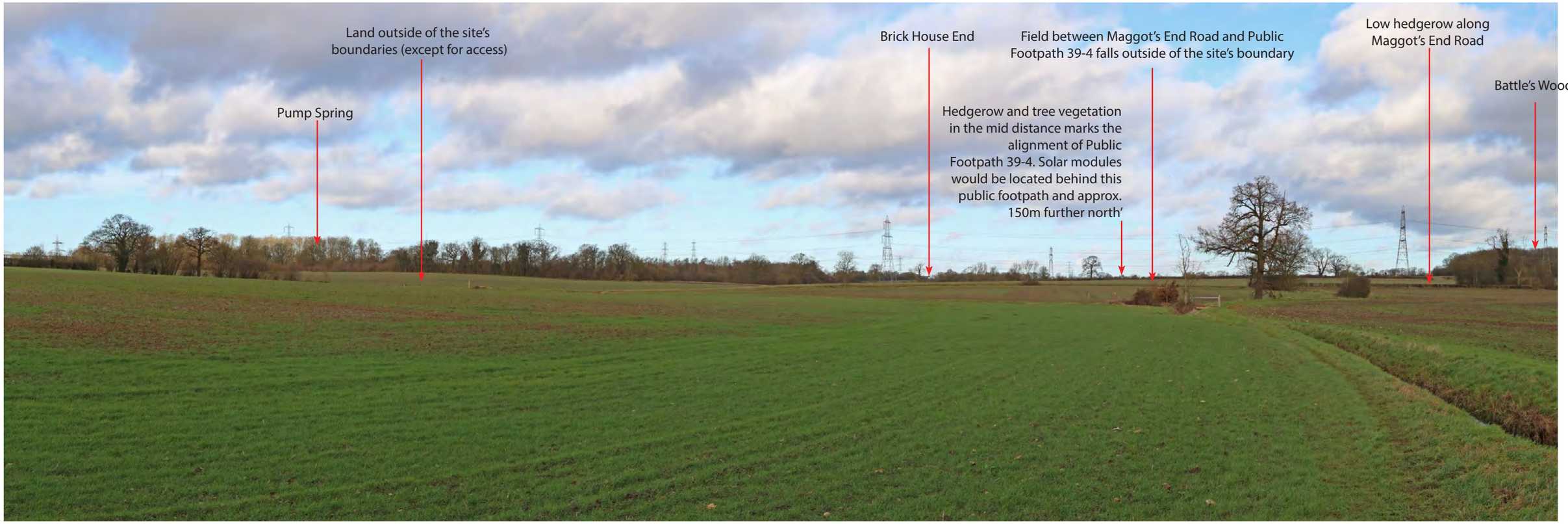
Maggots End Road / Public Footpath 39_7 looking north west to south east.



CONTEXT BASELINE VIEWPOINT 11B

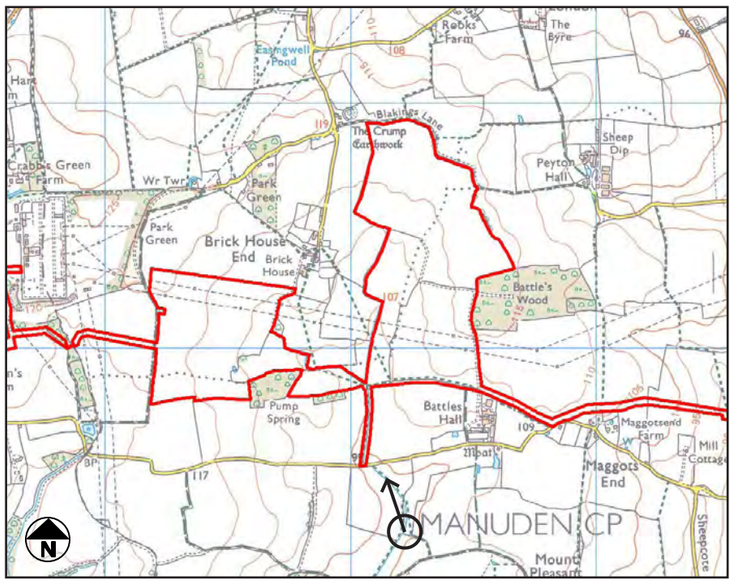
Maggots End Road / Public Footpath 39_7 looking north west to south east.





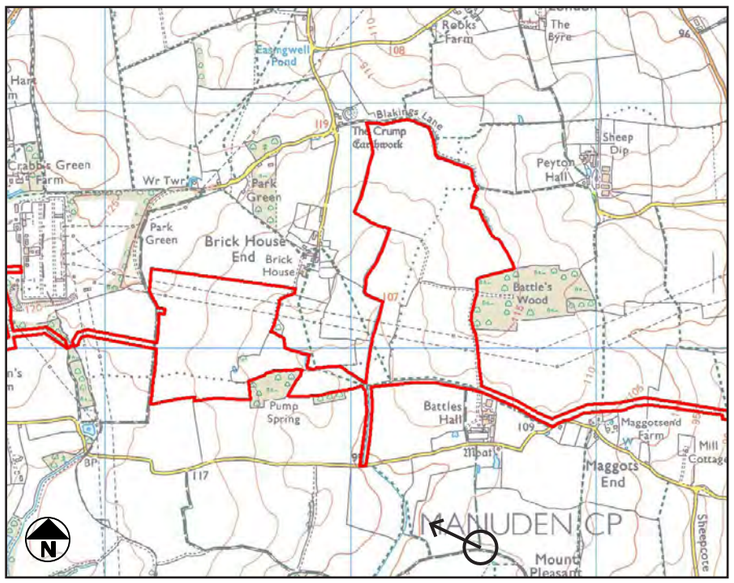
CONTEXT BASELINE VIEWPOINT 12

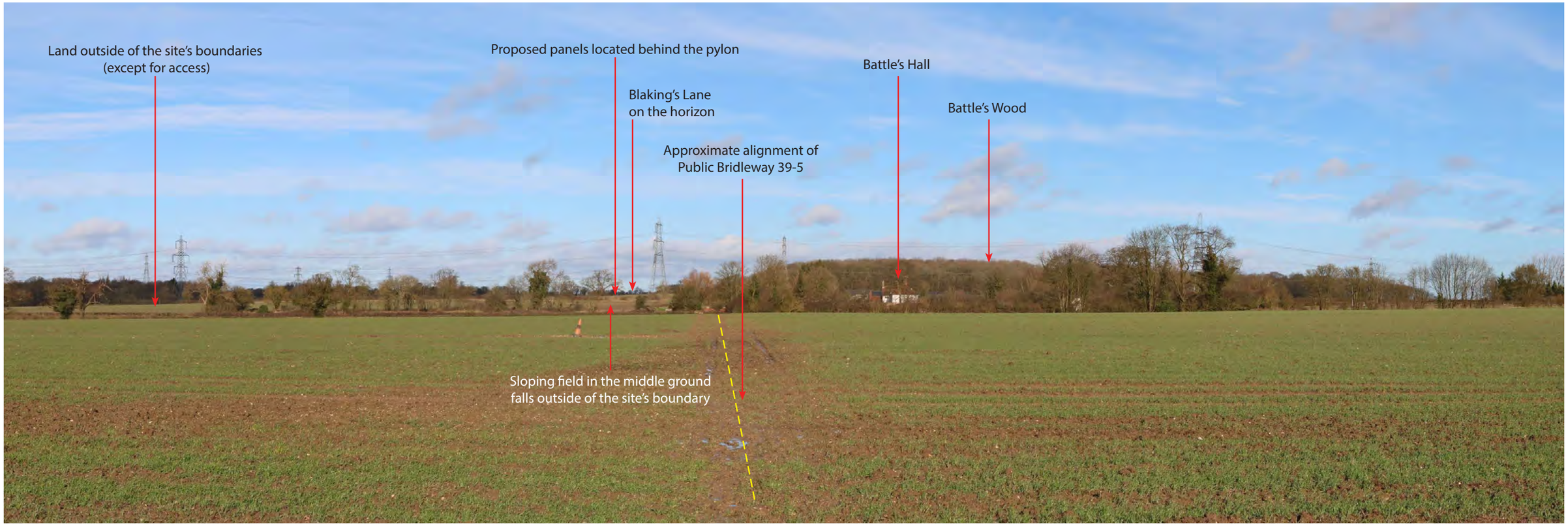
Public Footpath 39_8, south of Maggots End Road, looking north.



CONTEXT BASELINE VIEWPOINT 13A

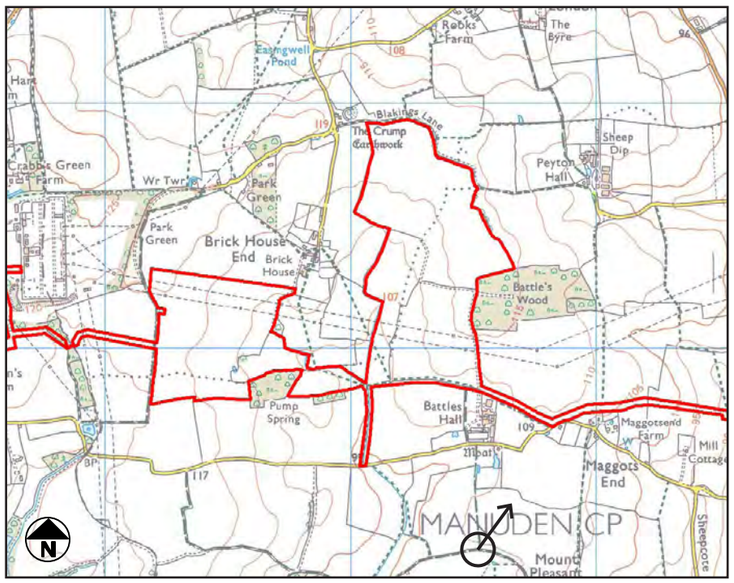
Maggots End Road / Public Bridleway 39_12, south of Battle's Hall, looking north west to north east

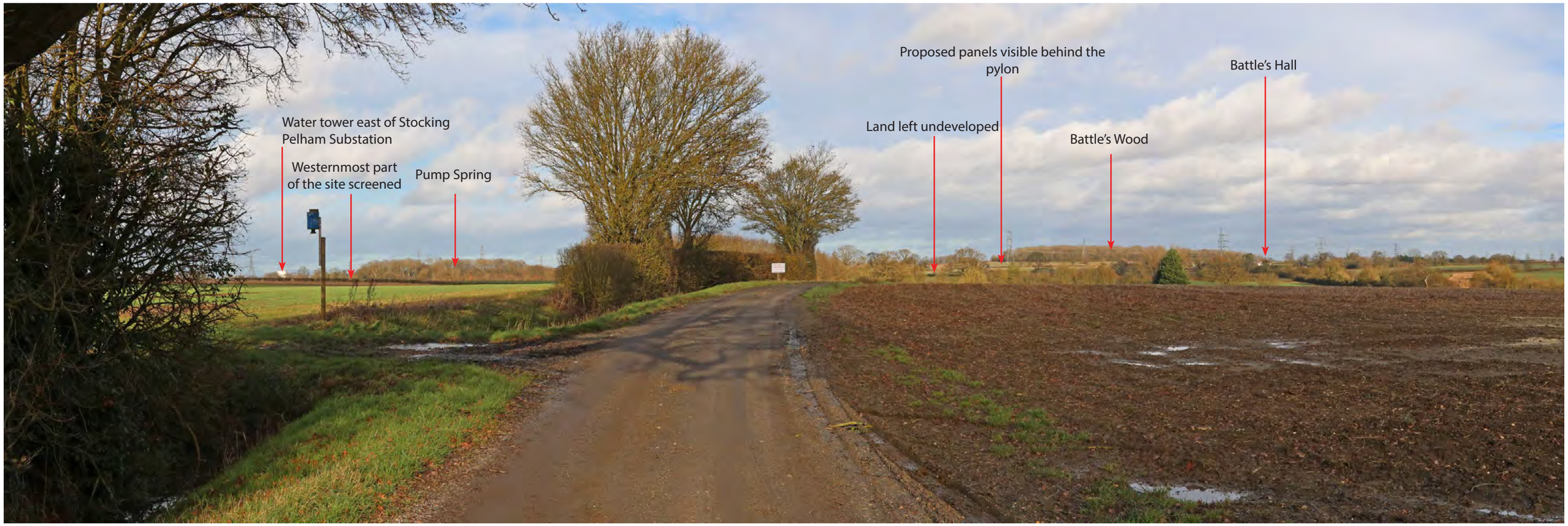




CONTEXT BASELINE VIEWPOINT 13B

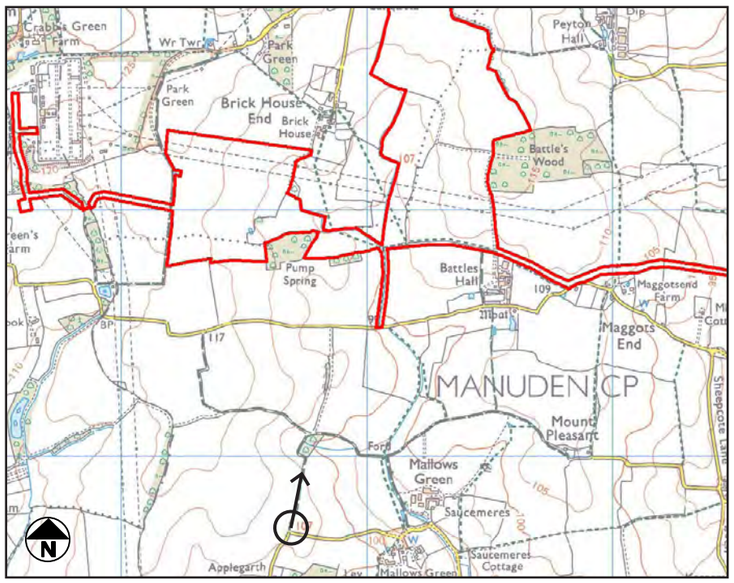
Maggots End Road / Public Bridleway 39_12, south of Battle's Hall,
looking north west to north east





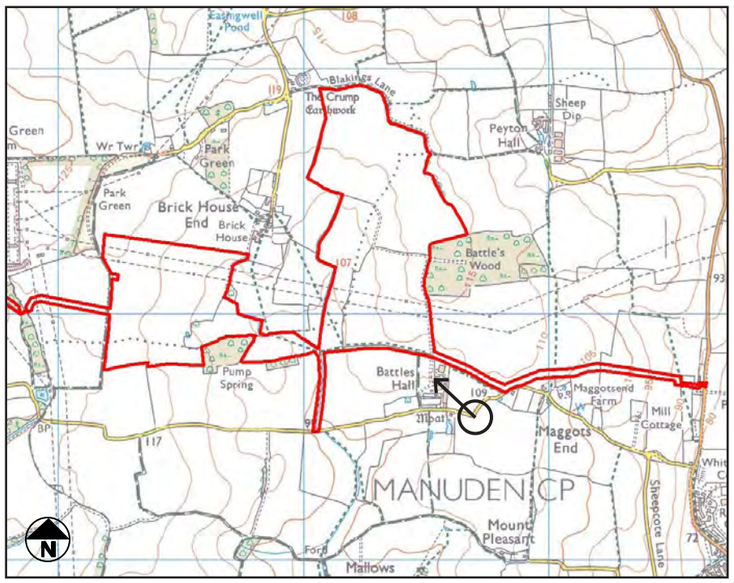
CONTEXT BASELINE VIEWPOINT 14

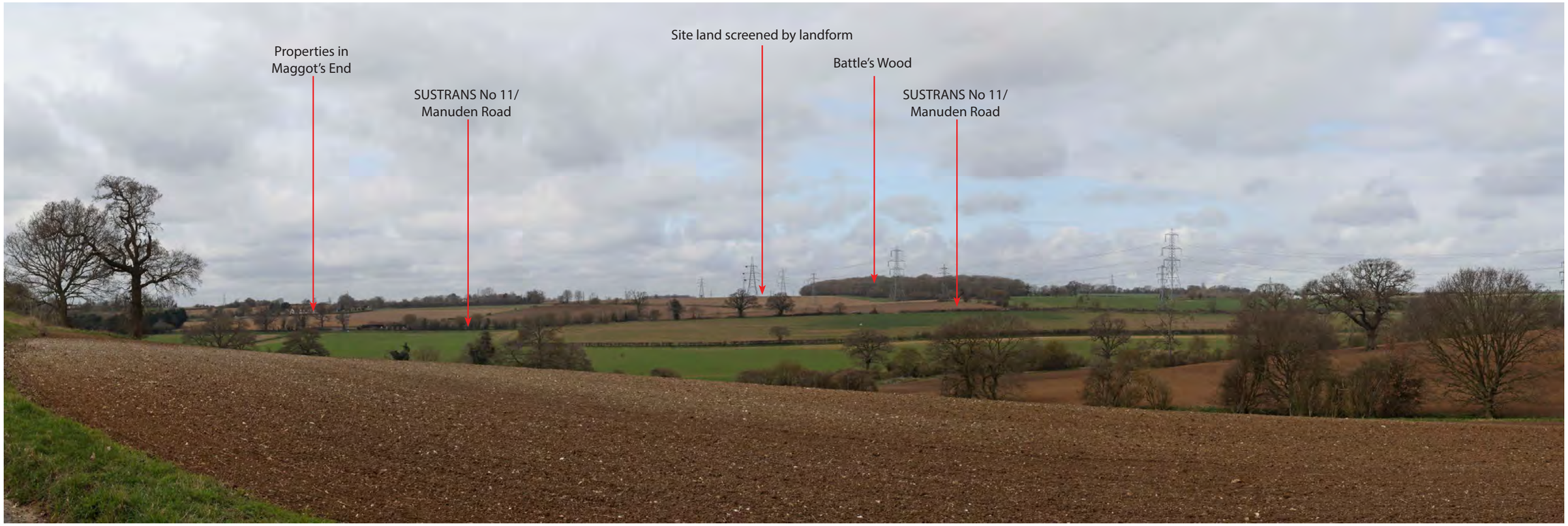
Minor road leading to Mallows Green/ Public Bridleway 39_12, looking north.



CONTEXT BASELINE VIEWPOINT 15

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





CONTEXT BASELINE VIEWPOINT 16

SUSTRANS No.11 / Brixton Lane, looking west.

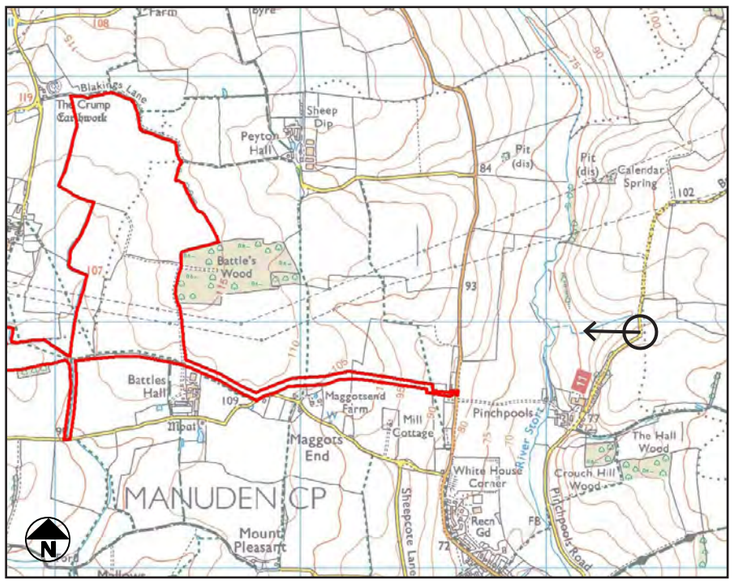


FIGURE 6

PHOTOMONTAGES

Pegasus Environment

DESIGN | ENVIRONMENT | PLANNING | ECONOMICS | HERITAGE

Camera make & model	- Canon EOS 6D Mark II
Lens make & focal length	- Canon EF 50mm, f/1.4 USM
Date & time of photograph	- 29/06/2021 @ 09:44
OS grid reference	- 546327, 227511
Viewpoint height (AOD)	- 117m
Distance from site	- 296m
Projection	- Cylindrical
Enlargement / Sheet Size	- 100% @ A1
Visualisation Type	- Type 1
Horizontal Field of View	- 75°
Height of camera AGL	- 1.5m
Page size / Image size (mm)	- 841 x 297 / 820 x 240

VIEWPOINT 5 - EXISTING VIEW CONTEXT PANORAMA

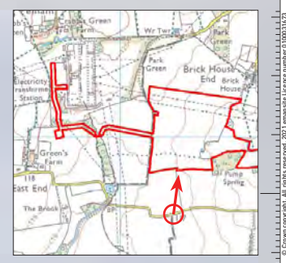
View looking west from public footpath adjacent to the southern site boundary.

Pegasus Environment

Camera make & model	- Canon EOS 6D Mark II
Lens make & focal length	- Canon EF 50mm, f/1.4 USM
Date & time of photograph	- 29/06/2021 @ 09:44
OS grid reference	- 546327, 227511
Viewpoint height (AOD)	- 117m
Distance from site	- 296m
Projection	- Planar
Enlargement / Sheet Size	- 100% @ A3
Visualisation Type	- Type 3
Horizontal Field of View	- 39.6°
Height of camera AGL	- 1.5m
Page size / Image size (mm)	- 420 x 297 / 390 x 260

VIEWPOINT 5 - EXISTING VIEW

Maggots End Road / Public Bridleway 39_11 looking north



Pegasus Environment

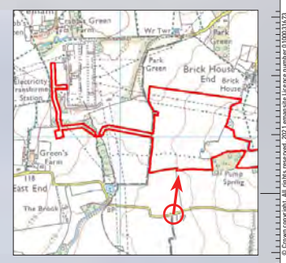
Camera make & model	- Canon EOS 6D Mark II
Lens make & focal length	- Canon EF 50mm, f/1.4 USM
Date & time of photograph	- 29/06/2021 @ 09:44
OS grid reference	- 546327, 227511

Viewpoint height (AOD)	- 117m
Distance from site	- 296m
Projection	- Planar
Enlargement / Sheet Size	- 100% @ A3

Visualisation Type	- Type 3
Horizontal Field of View	- 39.6°
Height of camera AGL	- 1.5m
Page size / Image size (mm)	- 420 x 297 / 390 x 260

VIEWPOINT 5 - PHOTOMONTAGE VIEW (YEAR 1)

Maggots End Road / Public Bridleway 39_11 looking north



Pegasus Environment

Camera make & model	- Canon EOS 6D Mark II
Lens make & focal length	- Canon EF 50mm, f/1.4 USM
Date & time of photograph	- 29/06/2021 @ 09:44
OS grid reference	- 546327, 227511

Viewpoint height (AOD)	- 117m
Distance from site	- 296m
Projection	- Planar
Enlargement / Sheet Size	- 100% @ A3

Visualisation Type	- Type 3
Horizontal Field of View	- 39.6°
Height of camera AGL	- 1.5m
Page size / Image size (mm)	- 420 x 297 / 390 x 260

VIEWPOINT 5 - PHOTOMONTAGE VIEW (YEAR 5)

Maggots End Road / Public Bridleway 39_11 looking north

Pegasus Environment

DESIGN | ENVIRONMENT | PLANNING | ECONOMICS | HERITAGE

Camera make & model	- Canon EOS 750D
Lens make & focal length	- Canon EF 50mm, f/1.4 USM
Date & time of photograph	- 21/01/2021 @ 14:43
OS grid reference	- 546950, 228680

Viewpoint height (AOD)	- 120m
Distance from site	- 119m
Projection	- Cylindrical
Enlargement / Sheet Size	- 100% @ A1

Visualisation Type	- Type 1
Horizontal Field of View	- 75°
Height of camera AGL	- 1.5m
Page size / Image size (mm)	- 841 x 297 / 820 x 240

VIEWPOINT 8 - EXISTING VIEW CONTEXT PANORAMA

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

Pegasus Environment

Camera make & model	- Canon EOS 750D	Viewpoint height (AOD)	- 120m	Visualisation Type	- Type 3
Lens make & focal length	- Canon EF 50mm, f/1.4 USM	Distance from site	- 119m	Horizontal Field of View	- 39.6°
Date & time of photograph	- 21/01/2021 @ 14:43	Projection	- Planar	Height of camera AGL	- 1.5m
OS grid reference	- 546950, 228880	Enlargement / Sheet Size	- 100% @ A3	Page size / Image size (mm)	- 420 x 297 / 390 x 260

VIEWPOINT 8 - EXISTING VIEW

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

Pegasus Environment

Camera make & model	- Canon EOS 750D
Lens make & focal length	- Canon EF 50mm, f/1.4 USM
Date & time of photograph	- 21/01/2021 @ 14:43
OS grid reference	- 546950, 228880

Viewpoint height (AOD)	- 120m
Distance from site	- 119m
Projection	- Planar
Enlargement / Sheet Size	- 100% @ A3

Visualisation Type	- Type 3
Horizontal Field of View	- 39.6°
Height of camera AGL	- 1.5m
Page size / Image size (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.

Pegasus Environment

Camera make & model	- Canon EOS 750D	Viewpoint height (AOD)	- 120m	Visualisation Type	- Type 3
Lens make & focal length	- Canon EF 50mm, f/1.4 USM	Distance from site	- 119m	Horizontal Field of View	- 39.6°
Date & time of photograph	- 21/01/2021 @ 14:43	Projection	- Planar	Height of camera AGL	- 1.5m
OS grid reference	- 546950, 228880	Enlargement / Sheet Size	- 100% @ A3	Page size / Image size (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.

Pegasus Environment

DESIGN | ENVIRONMENT | PLANNING | ECONOMICS | HERITAGE

Camera make & model	- Canon EOS 750D
Lens make & focal length	- Canon EF 50mm, f/1.4 USM
Date & time of photograph	- 21/01/2021 @ 12:47
OS grid reference	- 547529, 227194
Viewpoint height (AOD)	- 104m
Distance from site	- 440m
Projection	- Cylindrical
Enlargement / Sheet Size	- 100% @ A1
Visualisation Type	- Type 1
Horizontal Field of View	- 75°
Height of camera AGL	- 1.5m
Page size / Image size (mm)	- 841 x 297 / 820 x 240

VIEWPOINT 13 - EXISTING VIEW CONTEXT PANORAMA

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

Camera make & model	- Canon EOS 750D
Lens make & focal length	- Canon EF 50mm, f/1.4 USM
Date & time of photograph	- 21/01/2021 @ 12:47
OS grid reference	- 547529, 227194
Viewpoint height (AOD)	- 104m
Distance from site	- 440m
Projection	- Planar
Enlargement / Sheet Size	- 100% @ A3
Visualisation Type	- Type 3
Horizontal Field of View	- 39.6°
Height of camera AGL	- 1.5m
Page size / Image size (mm)	- 420 x 297 / 390 x 260

Pegasus Environment

DESIGN | ENVIRONMENT | PLANNING | ECONOMICS | HERITAGE

VIEWPOINT 13 - EXISITING VIEW

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

Pegasus Environment

Camera make & model	- Canon EOS 750D
Lens make & focal length	- Canon EF 50mm, f/1.4 USM
Date & time of photograph	- 21/01/2021 @ 12:47
OS grid reference	- 547529, 227194

Viewpoint height (AOD)	- 104m
Distance from site	- 440m
Projection	- Planar
Enlargement / Sheet Size	- 100% @ A3

Visualisation Type	- Type 3
Horizontal Field of View	- 39.6°
Height of camera AGL	- 1.5m
Page size / Image size (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

Camera make & model	- Canon EOS 750D
Lens make & focal length	- Canon EF 50mm, f/1.4 USM
Date & time of photograph	- 21/01/2021 @ 12:47
OS grid reference	- 547529, 227194
Viewpoint height (AOD)	- 104m
Distance from site	- 440m
Projection	- Planar
Enlargement / Sheet Size	- 100% @ A3
Visualisation Type	- Type 3
Horizontal Field of View	- 39.6°
Height of camera AGL	- 1.5m
Page size / Image size (mm)	- 420 x 297 / 390 x 260

Pegasus Environment

DESIGN | ENVIRONMENT | PLANNING | ECONOMICS | HERITAGE

VIEWPOINT 13 - PHOTOMONTAGE VIEW (YEAR 5)

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

APPENDIX 1

METHODOLOGY

1. LANDSCAPE AND VISUAL IMPACT ASSESSMENT METHODOLOGY

1.1 This Landscape and Visual Impact Assessment (LVIA) has been undertaken with regards to 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;
- Visual Representation of Development Proposals (2019) - Landscape Institute Technical Guidance Note 06/19;
- 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.

1.2 GLVIA3 states within 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."*[1]

1.3 GLVIA3 also states within 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."*[2]

1.4 GLVIA3 recognises within 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"*[3] undertaken by a landscape consultant or a Chartered Member of the Landscape Institute (CMLI).

1.5 GLVIA3 notes in paragraph 1.3 *that "LVIA may be carried out either formally, as part of an Environmental Impact Assessment (EIA), or informally, as a contribution to the 'appraisal' of development proposals and planning applications."*[4] Although the proposed development is not subject to an EIA requiring an assessment of the likely significance of effects, this assessment is also titled as an LVIA rather than an 'appraisal' in the interests of common understanding.

[1] Para 1.1, Page 4, GLVIA, 3rd Edition
[2] Para 1.17, Page 9, GLVIA, 3rd Edition
[3] Para 2.23, Page 21, GLVIA, 3rd Edition
[4] Para 1.3, Page 4, GLVIA, 3rd Edition

1.6 The effects on cultural heritage and ecology are not considered within this LVIA.

Study Area

1.7 The study area for this LVIA covers a 2km radius from the site as it is considered that even with clear visibility the proposals would not be easily perceptible in the landscape beyond this distance.

Effects Assessed

1.8 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. The landscape and visual effects have been assessed in the following sections:

- Effects on landscape elements;
- Effects on landscape character; and
- Effects on visual amenity.

1.9 Sensitivity is defined in GLVIA3 as *"a term applied to specific receptors, combining judgments of susceptibility of the receptor to a specific type of change or development proposed and the value related to that receptor."*[5] Various factors in relation to the value and susceptibility of landscape elements, landscape character, visual receptors or representative viewpoints are considered below and cross referenced to determine the overall sensitivity as shown in Table 1:

Table 1, Overall sensitivity of landscape and visual receptors

	VALUE			
SUSCEPTIBILITY		HIGH	MEDIUM	LOW
	HIGH	High	High	Medium
	MEDIUM	High	Medium	Medium
	LOW	Medium	Medium	Low

1.10 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*

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

reversible or irreversible and whether it is short or long term in duration."[6] Various factors contribute to the magnitude of change on landscape elements, landscape character, visual receptors and representative viewpoints.

1.11 The sensitivity of the landscape and visual receptor and the magnitude of change arising from the proposals are cross referenced in Table 9 to determine the overall degree of landscape and visual effects.

2. EFFECTS ON LANDSCAPE ELEMENTS

2.1 The effects on landscape elements are limited to within the site and includes the direct physical change to the fabric of the land, such as the removal of woodland, hedgerows or grassland to allow for the proposals.

Sensitivity of Landscape Elements

2.2 Sensitivity is determined by a combination of the value that is attached to a landscape element and the susceptibility of the landscape element to changes that would arise as a result of the proposals – see pages 88-90 of GLVIA3. Both value and susceptibility are assessed on a scale of high, medium or low.

2.3 The criteria for assessing the value of landscape elements and landscape character is shown in Table 2:

Table 2, Criteria for assessing the value of landscape elements and landscape character

HIGH	Designated landscape including but not limited to World Heritage Sites, National Parks, Areas of Outstanding Natural Beauty considered to be an important component of the country's character experienced by a high number of people. Landscape condition is good and components are generally maintained to a high standard. In terms of seclusion, enclosure by land use, traffic and movement, light pollution and presence/absence of major infrastructure, the landscape has an elevated level of tranquillity. Rare or distinctive landscape elements and features are key components that contribute to the landscape character of the area.
MEDIUM	Undesignated landscape including urban fringe and rural countryside considered to be a distinctive component of the national or local landscape character.

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

	Landscape condition is fair and components are generally well maintained. In terms of seclusion, enclosure by land use, traffic and movement, light pollution and presence/absence of major infrastructure, the landscape has a moderate level of tranquillity. Rare or distinctive landscape elements and features are notable components that contribute to the character of the area.
LOW	Undesignated landscape including urban fringe and rural countryside considered to be of unremarkable character. Landscape condition may be poor and components poorly maintained or damaged. In terms of seclusion, enclosure by land use, traffic and movement, light pollution and presence/absence of major infrastructure, the landscape has limited levels of tranquillity. Rare or distinctive elements and features are not notable components that contribute to the landscape character of the area.

2.4 The criteria for assessing the susceptibility of landscape elements and landscape character is shown in Table 3:

Table 3, Criteria for assessing landscape susceptibility	
HIGH	Scale of enclosure – landscapes with a low capacity to accommodate the type of development being proposed owing to the interactions of topography, vegetation cover, built form, etc. Nature of land use – landscapes with no or little existing reference or context to the type of development being proposed. Nature of existing elements – landscapes with components that are not easily replaced or substituted (e.g. ancient woodland, mature trees, historic parkland, etc). Nature of existing features – landscapes where detracting features, major infrastructure or industry is not present or where present has a limited influence on landscape character.
MEDIUM	Scale of enclosure – landscapes with a medium capacity to accommodate the type of development being proposed owing to the interactions of topography, vegetation cover, built form, etc. Nature of land use – landscapes with some existing reference or context to the type of development being proposed. Nature of existing elements – landscapes with components that are easily replaced or substituted. Nature of existing features – landscapes where detracting features, major infrastructure or industry is present and has a noticeable influence on landscape character.

LOW	Scale of enclosure – landscapes with a high capacity to accommodate the type of development being proposed owing to the interactions of topography, vegetation cover, built form, etc. Nature of land use – landscapes with extensive existing reference or context to the type of development being proposed. Nature of existing features – landscapes where detracting features or major infrastructure is present and has a dominating influence on the landscape.

2.5 Various factors in relation to the value and susceptibility of landscape elements are assessed and cross referenced to determine the overall sensitivity as shown in Table 1.

Magnitude of Change on Landscape Elements

2.6 Professional judgement has been used to determine the magnitude of change on individual landscape elements within the site as shown in Table 4:

Table 4, Criteria for assessing magnitude of change for landscape elements	
HIGH	Total loss/gain of a landscape element.
MEDIUM	Partial loss/gain or alteration to part of a landscape element.
LOW	Minor loss/gain or alteration to part of a landscape element.
NEGLIGIBLE	No loss/gain or very limited alteration to part of a landscape element.

3. EFFECTS ON LANDSCAPE CHARACTER

3.1 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."*[7]

3.2 The assessment of effects on landscape character considers how the introduction of new landscape elements physically alters the landform, landcover, landscape pattern and perceptual attributes of the site or how visibility of the proposals changes the way in which the landscape character is perceived.

[7] Glossary, Page 157, GLVIA, 3rd Edition

Sensitivity of Landscape Character

3.3 Sensitivity is determined by a combination of the value that is attached to a landscape and the susceptibility of the landscape to changes that would arise as a result of the proposals – see pages 88-90 of GLVIA3. Both value and susceptibility are assessed on a scale of high, medium or low.

3.4 The criteria for assessing the value of landscape character is shown in Table 2.

3.5 The criteria for assessing the susceptibility of landscape character is shown in Table 3.

3.6 The overall sensitivity is determined through cross referencing the value and susceptibility of landscape character as shown in Table 1.

Magnitude of Change on Landscape Character

3.7 Professional judgement has been used to determine the magnitude of change on landscape character as shown in Table 5:

Table 5, Criteria for assessing magnitude of change on landscape character

HIGH	Introduction of major new elements into the landscape or some major change to the scale, landform, landcover or pattern of the landscape.
MEDIUM	Introduction of some notable new elements into the landscape or some notable change to the scale, landform, landcover or pattern of the landscape.
LOW	Introduction of minor new elements into the landscape or some minor change to the scale, landform, landcover or pattern of the landscape.
NEGLIGIBLE	No notable or appreciable introduction of new elements into the landscape or change to the scale, landform, landcover or pattern of the landscape.

4. EFFECTS ON VISUAL AMENITY

4.1 Visual amenity is defined within 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."*[8]

4.2 The effects on visual amenity considers the changes in views arising from the proposals in relation to visual receptors including settlements, residential properties, transport routes, recreational facilities and attractions; and representative viewpoints or specific locations within the study area as agreed with the Local Planning Authority.

Sensitivity of Visual Receptors

4.3 Sensitivity is determined by a combination of the value that is attached to a view and the susceptibility of the visual receptor to changes in that view that would arise as a result of the proposals – see pages 113-114 of GLVIA3. Both value and susceptibility are assessed on a scale of high, medium or low.

4.4 The criteria for assessing the value of views is shown in Table 6:

Table 6, Criteria for assessing the value of views	
HIGH	Views with high scenic value within designated landscapes including but not limited to World Heritage Sites, National Parks, Areas of Outstanding Natural Beauty, etc. Likely to include key viewpoints on OS maps or reference within guidebooks, provision of facilities, presence of interpretation boards, etc.
MEDIUM	Views with moderate scenic value within undesignated landscape including urban fringe and rural countryside.
LOW	Views with unremarkable scenic value within undesignated landscape with partly degraded visual quality and detractors.

[8] Page 158, Glossary, GLVIA3

4.5 The criteria for assessing the susceptibility of views is shown in Table 7:

Table 7, Criteria for assessing visual susceptibility	
HIGH	Includes occupiers of residential properties and people engaged in recreational activities in the countryside using public rights of way (PROW).
MEDIUM	Includes people engaged in outdoor sporting activities and people travelling through the landscape on minor roads and trains.
LOW	Includes people at places of work e.g. industrial and commercial premises and people travelling through the landscape on major roads and motorways.

Magnitude of Change on Visual Receptors

4.6 Professional judgement has been used to determine the magnitude change on visual receptors as shown in Table 8:

Table 8, Criteria for assessing magnitude of change for visual receptors	
HIGH	Major change in the view that has a defining influence on the overall view with many visual receptors affected.
MEDIUM	Some change in the view that is clearly visible and forms an important but not defining element in the view.
LOW	Some change in the view that is appreciable with few visual receptors affected.
NEGLIGIBLE	No notable change in the view.

5. DEGREE OF LANDSCAPE AND VISUAL EFFECTS

5.1 The degree of effects are professional judgements based upon all the factors in terms of landscape and visual sensitivity and the magnitude of change arising from the proposals. The cross referencing of landscape and visual sensitivity and the magnitude of change determines the overall degree of effects as shown in Table 9:

Table 9, Degree of landscape and visual effects

		Sensitivity		
		HIGH	MEDIUM	LOW
Magnitude of Change	HIGH	Major	Major	Moderate
	MEDIUM	Major	Moderate	Minor
	LOW	Moderate	Minor	Minor
	NEGLIGIBLE	Negligible	Negligible	Negligible

6. TYPICAL DESCRIPTORS OF LANDSCAPE EFFECTS

6.1 The typical descriptors of landscape significance of effects are detailed within Table 10 below:

Table 10, Typical Descriptors of Landscape Effects

MAJOR BENEFICIAL	Typically, the landscape resource has a high sensitivity with the proposals representing a high beneficial magnitude of change and/or the proposed changes would: - enhance the character (including value) of the landscape; - enhance the restoration of characteristic features and elements lost as a result of changes from inappropriate management or development; - enable a sense of place to be enhanced.
MODERATE BENEFICIAL	Typically, the landscape resource has a medium sensitivity with the proposals representing a medium beneficial magnitude of change and/or the proposed changes would: - enhance the character (including value) of the landscape; - enable the restoration of characteristic features and elements partially lost or diminished as a result of changes from inappropriate management or development; - enable a sense of place to be restored.

MINOR BENEFICIAL	Typically, the landscape resource has a low sensitivity with the proposals representing a low beneficial magnitude of change and/or the proposed changes would: - complement the character (including value) of the landscape; - maintain or enhance characteristic features or elements; - enable some sense of place to be restored.
NEGLIGIBLE/ NEUTRAL	Typically, the proposed changes would (on balance) maintain the character (including value) of the landscape and would: - be in keeping with landscape character and blend in with characteristic features and elements; - Enable a sense of place to be maintained.
MINOR ADVERSE	Typically, the landscape resource has a low sensitivity with the proposal representing a low adverse magnitude of change and/or the proposed changes would: - not quite fit the character (including value) of the landscape; - be a variance with characteristic features and elements; - detract from sense of place.
MODERATE ADVERSE	Typically, the landscape resource has a medium sensitivity with the proposals representing a medium adverse magnitude of change and/or the proposed changes would: - conflict with the character (including value) of the landscape; - have an adverse effect on characteristic features or elements; - diminish a sense of place.
MAJOR ADVERSE	Typically, the landscape resource has a high sensitivity with the proposals representing a high adverse magnitude of change and/or the proposed changes would: - be at variance with the character (including value) of the landscape; - degrade or diminish the integrity of a range of characteristic features and elements or cause them to be lost; - change a sense of place.

7. TYPICAL DESCRIPTORS OF VISUAL EFFECTS

7.1 The typical descriptors of visual effects are detailed within Table 11 below:

Table 11, Typical Descriptors of Visual Effects

MAJOR BENEFICIAL	Typically, the visual receptor is of high sensitivity with the proposals representing a high magnitude of change and/or the proposals would result in a major improvement in the view.
MODERATE BENEFICIAL	Typically, the visual receptor is of medium sensitivity with the proposals representing a medium magnitude of change and/or the proposals would result in a clear improvement in the view.
MINOR BENEFICIAL	Typically, the visual receptor is of low sensitivity with the proposals representing a low magnitude of change and/or the proposals would result in a slight improvement in the view.
NEGLIGIBLE/ NEUTRAL	Typically, the proposed changes would be in keeping with, and would maintain, the existing view or where (on balance) the proposed changes would maintain the quality of the view (which may include adverse effects which are offset by beneficial effects for the same receptor) or due to distance from the receptor, the proposed change would be barely perceptible to the naked eye.
MINOR ADVERSE	Typically, the visual receptor is of low sensitivity with the proposals representing a low magnitude of change and/or the proposals would result in a slight deterioration in the view.
MODERATE ADVERSE	Typically, the visual receptor is of medium sensitivity with the proposals representing a medium magnitude of change and/or the proposals would result in a clear deterioration in the view.
MAJOR ADVERSE	Typically, the visual receptor is of high sensitivity with the proposals representing a high magnitude of change and/or the proposals would result in a major deterioration in the view.

8. NATURE OF EFFECTS

8.1 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."*[9] GLVIA3 does not, however, state how negative or positive effects should be assessed, and this therefore becomes a matter of professional judgement rather than reasoned criteria. Due to inconsistencies with the assessment of negative or positive effects a precautionary approach is applied to this LVIA which assumes that all landscape and visual effects are considered to be negative or adverse unless otherwise stated.

[9] Para 6.29, Page 113, GLVIA 3rd Edition