

**Tillbridge Solar Project
EN010142**

**Volume 6
Environmental Statement
Appendix 12-2: LVIA Methodology
Document Reference: EN010142/APP/6.2**

**Regulation 5(2)(a)
Infrastructure Planning (Applications: Prescribed Forms and
Procedure) Regulations 2009**

**April 2024
Revision Number: 00**

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1. Methodology for Assessment of Landscape and Visual Effects

1.1 Assessment Criteria

- 1.1.1 This environmental assessment has been undertaken following relevant guidance, including:
- a. Guidelines for Landscape and Visual Impact Assessment, Third Edition (GLVIA3), (Ref. 1);
 - b. Visual Representation of Development Proposals. Technical Guidance Note 06/19 (Ref. 2);
 - c. An Approach to Landscape Character Assessment (Ref. 3);
 - d. Assessing landscape value outside national designations. Technical Guidance Note 02/21 (Ref. 4);
 - e. Infrastructure. Technical Guidance Note 04/2020 (Ref. 5);
 - f. Landscape Institute Technical Information Note 01/17: Tranquillity, (Ref. 6); and
 - g. Landscape Institute Technical Guidance Note 02/19: Residential Visual Amenity Assessment, (Ref. 7).
- 1.1.2 The following section summarises the methodology for the LVIA which builds on the general assessment methodology presented in **Chapter 5: EIA Methodology** of this Environmental Statement (ES) **[EN010142/APP/6.1]**. For clarity and in accordance with good practice, the assessments of potential effects on landscape character and visual amenity, although closely related, are undertaken separately.
- 1.1.3 GLVIA3 places a strong emphasis on the importance of professional judgement in Landscape and Visual Assessment (LVIA). Much of the assessment relies on qualitative judgements, particularly with reference to the significance of effects; and whether effects are adverse or positive.
- 1.1.4 The LVIA has been undertaken by a Chartered Landscape Architect experienced in undertaking assessments of similar types and scale. Professional judgement has been used in combination with the methodology and criteria presented below to determine the sensitivity of landscape and visual receptors (informed by their value and susceptibility to change), the magnitude of impacts (change) on those receptors and the significance of effects.

1.2 Sensitivity of Landscape Receptors

- 1.2.1 Landscape receptors are components of the landscape that are likely to be affected by the Scheme. These can include overall character and key characteristics; individual elements or features; and specific aesthetic or perceptual aspects. It is the interaction between the different components of

the Scheme and these landscape receptors which has potential to result in landscape impacts and effects (adverse, neutral and beneficial).

- 1.2.2 The sensitivity of the landscape receptor has been derived by combining the value of the landscape (undertaken as part of the baseline study) and the susceptibility to change of the receptor to the specific type of development being assessed.

Landscape Value

- 1.2.3 Landscape value is frequently addressed by reference to international, national, regional and local designations. Absence of such a designation does not necessarily imply a lack of quality or value. Factors such as accessibility and local scarcity can render areas of nationally unremarkable quality highly valuable as a local resource.
- 1.2.4 **Table 1-1** lists the classifications of landscape value used within this assessment, alongside a brief description of typical criteria.

Table 1-1: Landscape Value Criteria

Classification	Typical Criteria Descriptors
High	A landscape with elements of national or regional designation / importance and / or which is characterised mainly by positive characteristics and/or rare features.
Medium	A landscape with elements of local or neighbourhood designation / importance and / or a landscape with some positive characteristics and/or distinctive features.
Low	A landscape with elements of community designation / importance and / or commonplace features and / or few positive characteristics.
Very Low	Landscape with weak or discordant elements and characteristics that detract from the quality of the area.

- 1.2.5 To ensure a proportionate, consistent and balanced approach when assessing landscape impacts, a Scheme-specific baseline local landscape character assessment has been undertaken. This approach was also requested by the Lincolnshire County Council (LCC) Landscape Officer.
- 1.2.6 All landscape effects arising from the Scheme are assessed against Local Landscape Character Areas (LLCA), which have been defined by the Applicant. The LLCA are broadly based on published assessments and baseline information detailed above, including planning policies and evidence base documents, alongside site surveys. The LLCA are shown on **Figure 12-11** of this ES [EN010142/APP/6.3].
- 1.2.7 For each LLCA, a list of key characteristics is provided, informed by *An Approach to Landscape Character Assessment* (Ref. 3). In addition, a table is provided that lists a series of factors and indicators used to determine landscape value, based on those provided in *Assessing Landscape Value Outside National Designations* (TGN 02/21) (Ref. 4).

- 1.2.8 Each of the factors stated in the table is summarised as follows, broadly in line with the guidance provided in *Assessing Landscape Value Outside National Designations* (TGN 02/21):
- a. Natural heritage: landscape with clear evidence of ecological, geological, geomorphological or physiographic interest that contribute positively to the landscape.
 - b. Cultural heritage: landscape with clear evidence of archaeological, historical or cultural interest that contribute positively to the landscape.
 - c. Landscape condition: landscape which is in a good physical state both with regard to individual elements and overall landscape structure.
 - d. Associations: landscape which is connected with notable people, events and the arts.
 - e. Distinctiveness: landscape that has a strong sense of identity.
 - f. Recreational: landscape offering recreational opportunities where experience of landscape is important.
 - g. Perceptual (scenic): landscape that appeals to the senses, primarily the visual sense.
 - h. Perceptual (wildness and tranquility): landscape with a strong perceptual value notably wildness, tranquillity and/or dark skies.
 - i. Functional: landscape which performs a clearly identifiable and valuable function, particularly in the healthy functioning of the wider landscape.
- 1.2.9 The evidence to support the presence or otherwise of these factors is derived from site surveys and observations; review of planning policy and supporting evidence base documents (such as green infrastructure assessments); landscape character assessments; historic environment and archaeological designations; conservation area appraisals; tree and ecological surveys; and feedback provided through stakeholder consultation and meetings. This evidence informs the judgements on landscape value classified in **Table 1-1**.

Landscape Susceptibility

- 1.2.10 Landscape susceptibility relates to the ability of a particular landscape to accommodate the Scheme. It is assessed through consideration of the baseline characteristics of the landscape, and in particular, the scale or complexity of a given landscape.
- 1.2.11 GLVIA3 paragraph 5.40 defines landscape susceptibility as:
- “the ability of the landscape receptor (whether it be overall character or condition of a particular landscape type or area, or an individual element and/or features, or a particular aesthetic and perceptual aspect) to accommodate the proposed development without undue consequences for the maintenance of the baseline situation and/or achievement of landscape planning policies and strategies.”*
- 1.2.12 GLVIA3, paragraph 5.43 it states that judgements about susceptibility of landscape receptors to change should be recorded on a verbal scale and this will be applied as set out in **Table 1-2**.

Table 1-2: Susceptibility to Change of Landscape Receptors

Susceptibility	Typical Criteria Descriptors
High	The receptor has a low capacity to accommodate the Scheme without effects upon its overall integrity. The landscape is likely to have a strong pattern / texture or is a simple but distinctive landscape and / or with high value features and essentially intact. Undue consequences are likely to arise from the Scheme.
Medium	The receptor has some capacity to accommodate the Scheme without effects upon its overall integrity. The pattern of the landscape is mostly intact and / or with a degree of complexity and with features mostly in reasonable condition. Undue consequences may arise from the Scheme.
Low	The receptor is robust; it can accommodate the Scheme without effects upon its overall integrity. The landscape is likely to be simple, monotonous and/or partially degraded with common / indistinct features and minimal variation in landscape pattern. Undue consequences are unlikely to arise from the Scheme.
Very Low	Damaged or substantially modified landscapes, capable of absorbing major change; and / or landscape elements / features that might be considered to detract from landscape character such as obtrusive man-made artefacts (e.g., power lines, large scale developments, etc.) or derelict or developed/industrial land. Consequences are likely to be beneficial for the landscape.

Landscape Sensitivity

1.2.13 The overall sensitivity assessment of the landscape receptor has been made by applying professional judgement to combine the identified value and susceptibility. Overall sensitivity has been rated as high, medium, low or very low. **Table 1-3** outlines indicators that inform landscape value, susceptibility and sensitivity. The basis of the assessment is made clear in the evaluation of each landscape receptor.

Table 1-3: Landscape Sensitivity

Sensitivity	Typical Criteria Descriptors
High	Landscape of national or regional value with distinctive elements and characteristics, highly susceptible to small changes of the type of development proposed without undue consequences for the maintenance of the baseline situation. Typically, these would be: <ul style="list-style-type: none"> • Of high quality with distinctive elements and features making a positive contribution to character and sense of place;

Sensitivity Typical Criteria Descriptors

	<ul style="list-style-type: none"> • Likely to be designated, but the aspects which underpin such value may also be present outside designated areas, especially at the local scale. • Areas of special recognised value through use, perception or historic and cultural associations; and • Likely to contain features and elements that are rare and could not be replaced.
Medium	<p>Landscape of local or community value, with mostly common elements and characteristics, which by nature of their character would be able to partly accommodate change of the type proposed without undue consequences for the maintenance of the baseline situation. Typically, these would be:</p> <ul style="list-style-type: none"> • Comprised of mostly commonplace elements and features creating generally unremarkable character but may include some rarer elements and with some sense of place; • Locally designated, or value may be expressed through non-statutory local publications or relevant Neighbourhood Plan policies; • Containing some features of value through use, perception or historic and cultural associations; and • Likely to contain some features and elements that could not be replaced.
Low	<p>Landscape of community or limited value and relatively inconsequential elements and characteristics, the nature of which is potentially tolerant of substantial change of the type proposed. Typically, these would be:</p> <ul style="list-style-type: none"> • Comprised of some features and elements that are discordant, derelict or in decline, resulting in indistinct character with little or no sense of place; • Not designated; • Containing few, if any, features of value through use, perception or historic and cultural associations; and • Likely to contain few, if any, features and elements that could not be replaced.
Very Low	<p>Landscape of very low or limited value that is damaged, degraded or a substantially modified landscape pattern, with few or no natural or original features remaining, such that it is tolerant of change.</p>

1.3 Sensitivity of Visual Receptors

1.3.1 Visual effects result from changes in the composition of views and/or changes to the overall visual amenity. GLVIA3 notes that the visual sensitivity of receptors is dependent upon:

“the susceptibility to change in views and visual amenity and also the value attached to particular views” (paragraph 6.31).

1.3.2 Visual sensitivity includes a combination of parameters, such as the activity/occupation/pastime of the receptors at particular locations; the extent to which their attention or interest may be focused on the views and the visual amenity they experience. It will comprise the location, relative focus and orientation of particular views; the quality or importance of the existing view and its attractiveness / or scenic quality; the principal or secondary interest in that particular view; the static or sequential nature of views; the ability of the view to accommodate the type of development; and the frequency and duration of the view.

Visual Value

1.3.3 GLVIA3 stresses the importance of considering the value attached to views, for example in relation to heritage assets, or through planning designations. It provides a list of indicators of the value of views in paragraph 6.37 of GLVIA3, including:

- a. Appearance in guidebooks our tourist maps;
- b. Provision of facilities, such as parking places, sign boards and interpretive materials; and
- c. References in literature or art.

1.3.4 The assessment of the value of views is also informed by the location of the viewing place and the quality or designation of the existing elements in the view, as shown in **Table 1-4** below.

Table 1-4: Visual Value

Value	Typical Criteria Descriptors
High	<p>A recognised high-quality view, well-frequented and / or promoted as a beauty spot/visitor destination.</p> <p>A view with cultural associations (recognised in art, literature or other media).</p> <p>A view which relates to the experience of other features, for example heritage assets.</p>
Medium	<p>The view, whilst it may be valued locally, visited to experience the view and / or identified in a Neighbourhood Plan, is not widely recognised for its quality or has low visitor numbers. The view has no strong cultural associations.</p>
Low	<p>A view with no recognised quality and / or with relatively common elements; and is unlikely to be visited specifically to experience the views available.</p>
Very Low	<p>A poor-quality view which is generally likely to be unvalued or regarded as degraded.</p>

Visual Susceptibility

1.3.5 GLVIA3 notes that visual receptors “*most susceptible to change*” include residents “*especially using rooms normally occupied in waking or daylight*”

hours” (para 6.36) and visitors engaged in outdoor recreation “*whose attention or interest is likely to be focused on the landscape and on particular views*” (para 6.33).

1.3.6 However, in paragraph 6.35, GLVIA3 notes that the divisions between categories are not always clear cut and “*in reality there will be a gradation in the susceptibility to change*”, (paragraph 6.35).

1.3.7 For the purposes of this assessment therefore, susceptibility of visual receptors to change will be defined as presented in **Table 1-5**.

Table 1-5: Susceptibility to change of views

Susceptibility	Typical Criteria Descriptors
High	<p>Typical receptors include:</p> <ul style="list-style-type: none"> • Residents at home; • People engaged in outdoor recreation, whose attention/interest is likely to be focused on the landscape or particular views, including strategic/popular Public Rights of Way (PRoW); • Visitors to heritage assets or other attractions, where views of the surroundings are a significant contributor to the experience; • Communities where views contribute to the landscape setting enjoyed by residents; and • Travellers on identified scenic routes which people take to experience or enjoy the view. <p>For whom:</p> <ul style="list-style-type: none"> • The development type would be of high incongruity in the context of the view. Susceptibility would be reduced for development of lesser incongruity.
Medium	<p>Typical receptors include:</p> <ul style="list-style-type: none"> • Travellers on road, rail, or other transport routes who anticipate some enjoyment of landscape as part of the journey but where the attention is not primarily focused on the landscape; • Users of local, and less used PRoW or where the attention is not focused on the landscape; and • Schools and other institutional buildings and their outdoor areas, play areas. <p>For whom:</p> <ul style="list-style-type: none"> • The development type would be of medium incongruity in the context of the view. Susceptibility would be reduced for development of lesser incongruity.
Low	<p>Typical receptors include:</p> <ul style="list-style-type: none"> • Travellers on road, rail or other transport routes not focused on the landscape/particular views e.g., on motorways and “A” road or commuter routes; and

Susceptibility Typical Criteria Descriptors

- People engaged in outdoor sport/recreation which does not involve/depend upon appreciation of views of the landscape.

For whom:

- The development type would be of low incongruity in the context of the view. Susceptibility would be reduced for development of lesser incongruity.
-

Typical receptors include:

- People at their place of work whose attention may be focused on their work/activity and not their surroundings.

Very Low

For whom:

- The development type would be of very low incongruity in the context of the view.

Visual Sensitivity

- 1.3.8 In combining susceptibility to change and value it is generally accepted that a combination of high susceptibility and high value is likely to result in the highest sensitivity, whereas a very low susceptibility and very low value is likely to result in the lowest level of sensitivity. A summary of the likely characteristics of the different levels of sensitivity is described below in **Table 1-6**. It must be noted that these are indicative and in practice do not have a clear distinction between criteria levels.

Table 1-6: Sensitivity of visual receptors

Sensitivity Typical Criteria Descriptors

High	Activity resulting in a particular interest or appreciation of the view (e.g. residents with principal private views); or people engaged in outdoor recreation whose attention is focused on the landscape and where people might visit purely to experience the view (such as promoted viewpoints); and/or a view of national value (e.g. within/towards a designated landscape).
Medium	Activity resulting in a general interest or appreciation of the view (e.g. residents or people engaged in outdoor recreation that is not largely focused on an appreciation of the landscape, or people passing through the landscape on defined scenic routes) and/or a view of local or community value (e.g. suburban residential areas, or agricultural land or urban areas).
Low	Activity where interest or appreciation of the view is secondary to the activity or the period of exposure to the view is limited (e.g. people at work, motorists travelling through the area or people engaged in outdoor recreation that does not focus on an appreciation of the landscape) and/or a view of limited value (e.g. featureless agricultural landscape, poor quality urban fringe).

Sensitivity Typical Criteria Descriptors

Very Low Activity where interest or appreciation of the view is inconsequential (e.g. people at work) and/or very low value of existing view (e.g. industrial areas or derelict land).

1.4 Assessing the Magnitude of Impact (Change)

1.4.1 The overall effect is informed by combining considerations relating to the sensitivity of the receptor, as summarised above; and the magnitude of the impact (or change).

Magnitude of Landscape Impact (Change)

1.4.2 The magnitude of the landscape impact that is likely to occur is determined by considering four separate factors, namely:

- a. Size/scale;
- b. Geographical extent;
- c. Duration; and
- d. Reversibility.

1.4.3 Making judgements regarding the size or scale of the changes to the landscape need to be made for each potential impact. GLVIA3 (para 5.59) specifies that these judgements should take the following into account:

- a. The extent of existing landscape elements that will be lost, the proportion of the total extent that this represents and the contribution of that element to the character of the landscape – in some cases this may be quantified;
- b. The degree to which aesthetic or perceptual aspects of the landscape are altered either by removal of existing components of the landscape or by addition of new ones; and
- c. Whether these change the key characteristics of the landscape, which are critical to its distinctive character.

1.4.4 Landscape impacts can be direct, where they involve a physical change to a defined element or characteristic of the landscape; or indirect, where impacts are secondary and perceived on the wider pattern of elements or on visual amenity, away from a proposed site.

1.4.5 The factors above as considered in combination to provide an overall magnitude of impact for each receptor as per the indicative scales in **Table 1-7**:

Table 1-7: Magnitude of Landscape Impact

Magnitude of Landscape Impact	Typical Criteria Descriptors
High	Total loss or large-scale damage to key characteristics or distinctive features, and/or the addition of new features or components that will substantially alter the character, setting or perceptual qualities of the area.
Medium	Partial loss or damage to key characteristics or distinctive features, and/or the addition of new features and whilst notable or obvious, the change would not fundamentally alter the balance of the key characteristics or perceptual qualities.
Low	Limited loss or damage to key characteristics or alteration of common features, and/or the addition of new features such that post development the change would be discernible or appreciable, but the underlying pattern of characteristics or perceptual qualities would remain similar to the baseline condition.
Very Low	Very limited loss, damage or alteration to key characteristics, features or perceptual qualities. The change would not influence the wider character and would be barely discernible or appreciable, approximating to a “no change” situation. The addition of new features or development would not degrade, or may enhance, the baseline condition.

Beneficial or Adverse Change: Landscape Receptors

1.4.6 The magnitude of landscape impacts also needs to be assessed as to whether it is a beneficial or adverse change. These are defined as follows:

- a. For beneficial change the proposed development, or part of it, would appear in keeping with existing landscape character and would make a positive visual and/or physical contribution to key characteristics. Removal of uncharacteristic features would also be a beneficial change; and
- b. For adverse change the proposed development, or part of it, would be perceived as an alien or intrusive component in the context of existing landscape character and would have a negative visual and/ or physical impact.

Magnitude of Visual Impact (Change)

1.4.7 The guidance provided in GLVIA3 (para 6.38) requires that each of the following variables need to be evaluated for each of the visual impacts (or change) identified:

- a. Size or scale of the change of view, including loss of or additional views, degree of contrast in terms of form, mass, scale, colour and texture etc;

- b. Geographic extent in terms of angle of view, distance etc; and
- c. Duration and reversibility in term of longevity of impacts and whether reversible.

1.4.8 These factors are then considered together to derive an overall magnitude of impact (or change) for each receptor, which is determined by use of professional judgement, based on the indicative criteria set out in **Table 1-8**.

Table 1-8: Magnitude of Visual Impact (or Change)

Magnitude of Impact/Change	Typical Criteria Descriptors
High	<p>Likely to result in:</p> <ul style="list-style-type: none"> • Extensive changes to the existing view and/or a change to an extensive proportion of the view or views where the proposed development would become the dominant landscape feature or contrast heavily with the current scene and/or. • Changes where the proposed development is located in the main focus of the view. • And/or at close range or over a large area. • And/or long term (10+ years). • And/or change is irreversible.
Medium	<p>Likely to result in:</p> <ul style="list-style-type: none"> • Changes will result in changes to the view but not fundamentally change its characteristics. • Changes that would be immediately visible but not be the key features of the view. • Changes where the proposed development is located obliquely to the main focus of the view. • And/or at medium range. • And/or over a narrow area. • And/or medium term (5-10 years). • And/or change is partially reversible.
Low	<p>Likely to result in:</p> <ul style="list-style-type: none"> • Changes which would not result in a change to the composition of the view. • Changes that would only affect a small portion of the view or introduce new features that are not discordant. • Changes where the proposed development is located on the periphery of the main focus of the view. • And/or at long range. • And/or over a small area. • And/or short term (1-5 years). • And/or is partially or substantially reversible.
Very Low	<p>Likely to result in:</p>

Magnitude of Impact/Change **Typical Criteria Descriptors**

- Changes which would not result in a change to the composition of the view or changes that would only affect a small portion of the view or introduce new features that are not discordant or changes where the proposed development is located on the periphery of the main focus of the view.
- And/or at long range.
- And/or over a small area.
- And/or temporary (Less than 12 months).
- And/or fully reversible.

Beneficial or Adverse Change: Visual Receptors

- 1.4.9 The magnitude also needs to be assessed as to whether it is a beneficial or adverse change. These are defined as follows:
- a. For beneficial change the proposed development, or part of it, would appear in keeping with existing landscape character and would make a positive visual and/or physical contribution to key characteristics. Removal of uncharacteristic features would also be a beneficial change; and
 - b. For adverse change the proposed development, or part of it, would be perceived as an alien or intrusive component in the context of existing landscape character and would have a negative visual and/ or physical effect.

1.5 Level and Significance of Effect

- 1.5.1 The classification (or level) of the landscape or visual effect and the resulting determination of significance is derived from the relationship between the sensitivity of the receptor and the magnitude of the impact.
- 1.5.2 A guide to this relationship is set out in the matrix in **Table 1-9** below. However, should professional judgement consider that the effect is different to that in the matrix, then a reasoned justification is presented in the LVIA.

Table 1-9: Classification of Effects Matrix

Sensitivity of receptor	Magnitude of impact (change)				
	High	Medium	Low	Very Low	None
High	Major	Major	Moderate	Minor	Neutral
Medium	Major	Moderate	Minor	Negligible	Neutral
Low	Moderate	Minor	Negligible	Negligible	Neutral
Very Low	Minor	Negligible	Negligible	Neutral	Neutral

- 1.5.3 Following the classification of an effect, clear statements has been made within the LVIA as to whether that effect is significant or not significant.
- 1.5.4 Residual effects found to be ‘moderate’ or ‘major’ are deemed to be ‘significant’ and may be important or relevant to the decision-making process. Effects found to be ‘negligible’ or ‘minor’ are considered to be ‘not significant’ and may not be important or relevant to the decision-making process, although they may be matters of local concern.
- 1.5.5 GLVIA3 dictates that this is not a prescriptive process: tables and matrices are provided as a guide to how combinations of sensitivity and magnitude are typically combined. Conclusions of significance may differ from those in the table when supported by evidence. GLVIA3 (para 6.42) states that there is no definitive rule regarding what defines a significant effect, but in making the judgement it is reasonable to say that:
- 1.5.6 For landscape effects:
- a. *“Major loss or irreversible negative effects, over an extensive area, on element and/or aesthetic and perceptual aspect that are key to the character of nationally valued landscape are likely to be of the greatest Significance; and*
 - b. *Reversible negative effects of short duration, over a restricted area, on elements and/or aesthetic and perceptual aspects that contribute to but are not key characteristics of landscape value are likely to be the least Significant and may, depending upon the circumstance, be judged as not Significant.”*
- 1.5.7 For visual effects:
- a. *“Effects on people who are particularly sensitive to changes in the views and visual amenity are more likely to be Significant;*
 - b. *Effects on people at recognised and important viewpoints or from recognised scenic routes are more likely to be Significant; and*
 - c. *Large-scale changes which introduce new, non-characteristic or discordant features or intrusive elements into the view are more likely to be Significant than small changes or changes involving features already present within the view.”*

1.5.8 There may be instances where the matrix combination result in a moderate effect, but where professional judgment considers this not to be 'significant'. Such cases should support clear reasoning. For example, this may occur where new planting screens views that have could be appreciated on a local level, but nevertheless provide biodiversity benefits and enhance landscape condition through the restoration of absent features, with a resulting increase in visual amenity. The level and significance of landscape and visual effects are described with reference to the criteria presented in **Table 1-10** below.

Table 1-10: Significance of Effect

Level and Significance of Effect	Landscape	Visual
Major Beneficial (Significant)	Alterations that result in a considerable improvement of the existing landscape resource. Valued characteristic features would be restored or reintroduced.	Alterations that typically result in a pronounced improvement in the existing view.
Moderate Beneficial (Significant)	Alterations that result in a partial improvement of the existing landscape resource. Valued characteristic features would be largely restored or reintroduced.	Alterations that typically result in a noticeable improvement in the existing view.
Minor Beneficial	Alterations that result in a slight improvement of the existing landscape resource. Characteristic features would be partially restored.	Alterations that typically result in a limited improvement in the existing view.
Negligible Beneficial	Alterations that result in a very slight improvement to the existing landscape resource, not uncharacteristic within the receiving landscape.	Alterations that typically result in a barely perceptible improvement in the existing view.
Neutral	No alteration to any of the components that contribute to the existing landscape resource.	No change to the existing view.
Negligible Adverse	Alterations that result in a very slight deterioration to the existing landscape resource, not uncharacteristic within the receiving landscape.	Alterations that typically result in a barely perceptible deterioration in the existing view.
Minor Adverse	Alterations that result in a slight deterioration of the existing landscape resource.	Alterations that typically result in a limited deterioration in the existing view.

Level and Significance of Effect	Landscape	Visual
	Characteristic features would be partially lost.	
Moderate Adverse (Significant)	Alterations that result in a partial deterioration of the existing landscape resource. Valued characteristic features would be largely lost.	Alterations that typically result in a noticeable deterioration in the existing view.
Major Adverse (Significant)	Alterations that result in a considerable deterioration of the existing landscape resource. Valued characteristic features would be wholly lost.	Alterations that typically result in a pronounced deterioration in the existing view.

1.6 Residential Visual Amenity Assessment

1.6.1 The LVIA assesses the potential visual effects to different types of visual receptor, including residential receptors, i.e. private views; and agreed representative viewpoints. Residential Visual Amenity, according to the Landscape Institute's Technical Guidance Note (TGN) 2/19: 'Residential Visual Amenity Assessment' (Ref. 7), is defined as:

"...the overall quality, experience and nature of views and outlook available to occupants of residential properties, including views from gardens and domestic curtilage".

1.6.2 Significant adverse effects on views and visual amenity may be experienced by residential receptors. In itself, this does not normally cause planning concern, but there may be situations where the effect is so significant that it is not generally considered to be in the public interest to permit such conditions where they did not exist before. In circumstances where an effect is potentially this significant, a Residential Visual Amenity Assessment (RVAA) may be prepared to assist in making judgements as to whether this threshold has been reached.

1.6.3 With reference to TGN 2/19, the 'Residential Visual Amenity Threshold' (RVAT) is whether:

"the effect of the development on Residential Visual Amenity of such nature and / or magnitude that it potentially affects 'living conditions' or Residential Amenity."

1.6.4 The RVAT guidance is based upon a four-stage approach. Stages one to three accord with the above LVIA methodology whereby, in line with GLVIA3, visual receptors are identified, along with the magnitude of impact and the significance of effect.

1.6.5 The fourth step is a more detailed examination of residential properties, where appropriate, when the highest 'significance of effect' levels is identified

via stages one to three. However, as stated by the guidance, there are no 'hard and fast rules' as to making a judgement on RVAT.

1.6.6 The RVAT guidance goes on to state:

“LVIA findings of significant (adverse) effects on outlook and/or on visual amenity at a residential property do not automatically imply the need for a RVAA. However, for properties in (relatively) close proximity to a development proposal, and which experience a high magnitude of visual change, a RVAA may be appropriate, and may be required by the determining / competent authority.”

1.7 Visualisations (Photomontage) Methodology

- 1.7.1 Visualisations of the Scheme superimpose the Scheme onto existing photographs for publication with the ES. These visualisations and the supporting photography have been prepared in accordance with Landscape Institute Technical Guidance Note 06/19: Visual Representation of Development Proposals (Ref. 2) and represent 'Type 3' visualisations.
- 1.7.2 The photographs for the visualisations were taken with a full frame camera (Canon EOS 5D Mark IV) and 50mm lens combination. The camera was mounted on a Manfrotto 303 SPH panoramic tripod head, levelled using a Manfrotto Leveller, supported on a Manfrotto Tripod. The tripod head was levelled using a spirit level, to avoid pitch and roll. The camera was set with the centre of the lens 1.60m above ground level. Photographs were taken in Manual mode with an aperture of f/8 or f/11 and a fixed focal length throughout. Photographs were taken in landscape orientation. A Sigma 50mm f/1.4 lens was used for all viewpoint photographs.
- 1.7.3 To ensure consistent geometry each image was cylindrically re-projected, as above. This ensures that a full 360 degree panorama can be created to match the 3D model view. From the 360 degree panorama a 90 (or 180 degree) degree portion can be extracted to present the context view, as shown in the resulting visualisations.
- 1.7.4 The position of each camera location was surveyed using Spectra Precision GNSS equipment with Real Time Kinematic Correction (RTK) which achieves an accuracy down to 1cm in eastings, northings and height (metres Above Ordnance Datum). The equipment included Spectra Precision SP85 GNSS smart antennae with Panasonic Toughpad data recorder.
- 1.7.5 In order to present the visualisations, details have been added using CAD data to a three-dimensional computer model of the Scheme to achieve a realistic representation of the Scheme.
- 1.7.6 Once this model is created it has been positioned in 3D software using the general arrangement drawings.
- 1.7.7 A virtual camera was then be placed within the scene at the correct surveyed location. The virtual 3D camera has been rotated to the correct position with the captured photography as a backplate and the survey points has been used to verify the alignment.

- 1.7.8 To obtain photo-realism, physically accurate lighting is required alongside materials and textures. V-RaySun and V-RaySky reproduce the real-life Sun and Sky environment of the earth. Both are coded so that they change their appearance depending on several factors, such as the direction of the V-RaySun; which was dynamically linked and georeferenced to the real-world position of the Principal Site, the time, day and month.
- 1.7.9 Using this lighting system, alongside the physically accurate material properties, the software calculates the effects of the sun and sky conditions on the appearance of the Scheme, illustrating the anticipated effects.
- 1.7.10 Once the rendering stage is complete, the images have been brought into Adobe Photoshop to superimpose the Scheme onto the digital images of the Site. The foreground details such as trees, buildings or topography will then be overlaid as masks; ensuring the depth of the various items is represented correctly. If required, the rendered image will then be further edited to accurately match the colour, saturation and environmental effects shown in the original photograph.

1.8 References

- Ref. 1 Landscape Institute and the Institute of Environmental Management and Assessment. (2013). Guidelines for Landscape and Visual Impact Assessment 3rd Edition.
- Ref. 2 Landscape Institute (2019). Visual Representation of Development Proposals - Technical Guidance Note 06/19. Available at:
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- Ref. 3 Natural England (2014). An Approach to Landscape Character Assessment. Available at:
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- Ref. 4 Landscape Institute (2021). Assessing Landscape Value Outside National Designations. Technical Guidance Note 02/21. Available at:
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- Ref. 6 Landscape Institute (2017). Tranquillity. Technical Guidance Note 01/17. Available at: [Redacted]
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