INDIGO

LANDSCAPE AND VISUAL IMPACT APPRAISAL

LANDSCAPE AND VISUAL EFFECTS OF A PROPOSED CREMATORIUM AT TURNERS HILL, WEST SUSSEX

APPENDICES A - C

for
HARTMIRES INVESTMENTS LTD.

July 2020
REF: 917-LVA 2020-07-27 Rev A

INDIGO

LANDSCAPE AND VISUAL IMPACT APPRAISAL

LANDSCAPE AND VISUAL EFFECTS OF A PROPOSED CREMATORIUM AT TURNERS HILL, WEST SUSSEX

APPENDIX A
LANDSCAPE IMPACT ASSESSMENT METHODOLOGY

for
HARTMIRES INVESTMENTS LTD.

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In the interest of sustainability, this document is intended to be printed double sided on A3 paper.

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INTRODUCTION

Landscape effects are concerned with changes to the character of the landscape. These involve direct or indirect effects upon specific landscape components (landscape receptors), which taken together lead to changes in quality and in the way a particular landscape is perceived (landscape character).

This document forms an Appendix to the Landscape and Visual Appraisal (LVA) prepared for the proposed crematorium at Turners Hill, West Sussex.

It contains the detailed methodology applicable to the landscape effect assessment undertaken for the project and should be read in conjunction with the main LVA and the Appendix detailing the methodology of the visual effect assessment (for the determination of the study area).

BASIS OF ASSESSMENT

The methodology set out below is based on the third edition of the 'Guidelines for Landscape and Visual Impact Assessment' (GLVIA3) prepared jointly by the landscape Institute and the Institute of Environmental Management and Assessment and published on the 17th April 2013. This publication contains the latest guidance on the subject of landscape effect assessment, and is widely acknowledged to represent the 'industry standard' on the subject.

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LANDSCAPE EFFECT ASSESSMENT METHODOLOGY

1. INTRODUCTION

1.1 The process of landscape effect assessment is divided into the following stages:

- **Determining the scope of the assessment**
- **Establishing the Landscape Baseline**
- **Determining the receptors to be assessed and undertaking the landscape effect assessment**

1.2 The details of each of these are set out below.

2. DATA SOURCES

2.1 Data sources used in the preparation of the landscape baseline are cited within footnotes within the main Landscape and Visual Appraisal document. Sources include maps, aerial photography, interactive websites and documents produced by other bodies.

3. DETERMINING THE SCOPE OF THE LANDSCAPE EFFECT ASSESSMENT

3.1 The first stage of landscape effect assessment involves determining the scope of the assessment.

3.2 Elements considered in this exercise include:

- The extent of the study area (broadly defined by the Zone of Visual Influence of the development).
- The landscape receptors (key elements) which are to be considered.
- The duration of the assessments (short, medium and long term).
- The requirement for assessments during an enabling works demolition phase; the construction phase; and during a potential future decommissioning phase.
- The requirement for assessments at night.
- The requirement for cumulative assessments.
- The requirement for future monitoring.

3.3 GLVIA3 places an emphasis on determining a reasonable approach (proportional to the scale and nature of the development proposed). It is therefore normal to "scope out" those potential impacts which are felt to be unnecessary or unreasonable (given the nature of the proposals in question).

3.4 Details of the scoping assessment stage are contained within Section 1 of the main Landscape and Visual Appraisal to which this methodology forms an Appendix.

4. BASELINE STUDY

4.1 Having established the scope of the assessment the landscape baseline is recorded. This involves:

- Establishing the planning background applicable to the study area, including a review of existing Landscape / Townscape and Habitat Designations.[1]
- Establishing the visual baseline (part of the Visual Assessment).
- Recording the Environmental Baseline. This makes reference to existing Landscape Character Assessments and other relevant documents applicable to the study area; describes the Site and existing landscape condition with reference to key constituent elements which make up the landscape; and determines the value of the landscape as a whole, its susceptibility to change, and its consequential sensitivity.

Review of Landscape / Townscape Planning Policies

4.2 In this section reference is made to planning policies and or landscape strategies applicable to the study area where they have relevance in terms of landscape or visual aspects of development.

4.3 In particular, reference is made to those policies / parts of those policies which indicate areas / components / aesthetic or perceptual aspects of the landscape which are particularly valued (e.g. a stated strategy of landscape conservation is a good indicator).

4.4 The national statutory context is initially set out, followed by the local planning context; and reference is made to specific polices as appropriate.

Review of existing Landscape, Heritage, Tree (and Habitat) Designations

4.5 In this section existing designations within the study area are reviewed in order to assist with the understanding of the value attributed to the landscape as a whole.

4.6 This is largely a desktop process (in which the existing designations are considered), but also involves fieldwork to confirm value or identify variations. Where designations are present, issues considered include:

- The level of designation (international / national / local / community / undesignated);
- The geographic extent of the designation;
- The basis for designation;
- The date of designation and whether it still applies in today's context;
- The degree to which factors for designation are present in the study area;
- The value identified in / suggested by the designation;
- Comments from fieldwork.

[1] Habitat designations are listed for contextual purposes only. The assessment of the effects on habitats and species is a specialist area undertaken by consultant ecologists and falls outside the scope of this assessment.

4.7 As noted above, habitat designations within the study area are also recorded for contextual purposes.

Establishing the visual baseline

4.8 This section describes the estimated Zone of Visual Influence determined as part of the visual assessment work (refer to LVA Appendix B). It details all areas of the surrounding countryside from where development of the nature described in the development proposals section of the LVA may be seen (either from ground level or from within buildings), and is important in that it broadly establishes the extent of the study area for the remainder of the landscape baseline.

4.9 The edge of the Zone of Visual Influence is described, with reference to relevant landscape features (built form, vegetation, topography etc); public access; and viewpoints used within the Visual Impact Assessment; and visual receptors are listed.

4.10 As set out in the Visual Assessment Methodology (LVA Appendix B), the Zone of Visual Influence takes into consideration the screening effects of topography, built form and areas of vegetation as noted from the site work, however, it is estimated (as access to private land is not possible) and it should be recognized that there will always be areas within the ZVI shown on the drawings where the complexity of landscape / townscape makes it impossible reasonably to delineate the exact visibility of the proposed development. For example, there will be areas of private land within the mapped ZVI where localised intervening vegetation or buildings screen the Site from view. In reality the area from where the development will be seen will always be smaller than the estimated ZVI presented on the drawings, as on the drawings the worst case position is always shown.

Establishing the Environmental Baseline

4.11 In this section existing Landscape Character Assessments and other relevant documents[2] are reviewed in order to give an understanding of the landscape within the study area.

4.12 This is a largely desktop process, in which the documents are considered and key characteristics are drawn out to inform the landscape baseline, and is followed up with fieldwork to confirm the characteristics or identify variations. Issues considered include:

- The date of the assessments undertaken.
- The status of the document (adopted SPD or not).
- The scale / level of detail.
- Landscape Character Areas and Landscape Types identified within the study area.
- Key characteristics relevant to the proposals / study area.
- Details of landscape quality / condition and sensitivity if given.
- Details of any strategies or guidelines given.

4.13 National Character Areas are referenced for context / setting the scene but Local Level Character Assessments form the primary point of reference.

Site description

4.14 This is a brief description of the Site, detailing its size, access points and on site features.

Recording the existing condition of key constituent elements of the landscape

4.15 Having established the estimated Zone of Visual Influence of the development and reviewed the existing documentation, a review of the key constituent elements (receptors) which make up the landscape is undertaken.

4.16 The process involves both desktop study and fieldwork; with elements considered under the three broad headings of 'physical influences'; 'influences of human activity'; and 'aesthetic and perceptual' factors as follows:

Physical influences ▪ Geology ▪ Soils ▪ Vegetation ▪ Landform / topography ▪ Drainage / water bodies	**Aesthetic and Perceptual factors** ▪ Landscape scale ▪ Complexity ▪ Degree of enclosure / openness ▪ Tranquillity ▪ Wildness ▪ Remoteness ▪ Sense of place
Influences of human activity ▪ Heritage assets (Sites of Archaeological Importance / Conservation Areas / Listed Buildings / Scheduled Ancient Monuments/ Registered Parks and Gardens / undesignated heritage assets) [3] ▪ Land use / management ▪ Pattern & character of settlement ▪ Character of buildings and built form ▪ Access / movement ▪ Landscape pattern ▪ Cultural elements (references in art and literature) ▪ Community spaces	

[2] For example Landscape Sensitivity Studies; Historic Characterisation Studies; Design Guides and Community level documents such as Village Design Statements.

[3] Heritage assets such as Listed Buildings contribute to the overall landscape character, context and setting of an area. These aspects will be given consideration in this LVA, however, only in terms of setting and landscape character. The historic significance and importance of heritage assets and designations will not be addressed in this LVA.

Determining value of the landscape

4.17 All landscapes have value, both designated and undesignated. Having considered the characteristics of the key constituent elements, value is attributed to the landscape in accordance with the guidance set out in Table V below:

Table V – Value

	Value
High	Landscape / townscape of a particularly distinctive and highly valued character and / or rarity, typically of national or regional scale. Guidance: • Landscapes designated for the preservation of the beauty of the countryside / townscape at a national or international level (National Parks, AONB's and National Scenic Areas (Scotland), World Heritage Sites, Heritage Coasts). • Landscapes highlighted as being of high scenic value in local Landscape Character Assessments or given elevated status by virtue of the beauty of the landscape at the local level (e.g. AGLV). • Landscapes with stated preservation aim in planning policy. • Landscapes of historic importance or that form part of their setting[4] (e.g. Registered Historic Parks and Gardens / Archaeological sites of importance (Scheduled Ancient Monuments & Battlefields) / Listed Buildings / Conservation Areas). • Landscapes particularly valued for a combination of factors such as designated components of acknowledged value (e.g. Tree Preservation Orders; Geological SSSI's; etc.); undesignated components which have value at a national or regional scale (such as National Trails / Long Distance Paths etc.); and components or landscapes referred to in nationally famous art or literature. • Landscapes valued highly for aesthetic or perceptual factors such as scale, complexity, degree of openness / enclosure, wildness, tranquillity or sense of place. • Limited potential to recreate or replace the landscape / elements.
Medium	Landscape / townscape of moderate importance and rarity typically of regional or local scale. Guidance: • Landscapes designated locally or identified as of moderate scenic value in local Landscape Character Assessments. • Landscapes with stated conservation aim in planning policy – possibly identified for enhancement. • Landscapes particularly valued at the local level eg / village greens / allotments / certain local green spaces etc. • Landscapes containing undesignated components which nevertheless have value locally (eg significant but unprotected trees; general Public Rights of Way; undesignated heritage assets; and components or landscapes referenced in local guidebooks / on tourist maps or in locally well-known literature). • Landscapes valued moderately for aesthetic or perceptual factors such as scale, complexity, degree of openness / enclosure, wildness, tranquillity or sense of place. • There is moderate potential to recreate or replace the landscape / elements.
Low	Landscape / townscape of relatively low importance and rarity or degraded, typically of local scale. May have some redeeming features. Guidance: • Landscapes identified as of limited scenic value in local Landscape Character Assessments. • Landscapes identified for improvement in planning policy. • Landscapes containing undesignated components with limited value locally. • Landscapes with limited aesthetic or perceptual value for factors such as wildness, tranquillity or sense of place. • Components that are easily replaced.

Determining the susceptibility to change

4.18 Susceptibility refers to the ability of the landscape to accommodate the proposed development without undue consequences for the maintenance of the baseline situation and is evaluated in accordance with the criteria contained within Table W below. Landscape effects are particular to both the specific landscape and the specific nature of the proposed development and the assessment of susceptibility is therefore tailored to the project. For example, a landscape already dominated by housing development is likely to be less susceptible to additional housing than a landscape in which housing development is not present.

Table W – Susceptibility

	Susceptibility
High	A landscape whose character is particularly susceptible to change of the nature proposed. • The landscape has limited ability to accommodate the nature of the proposed development without undue consequences for the maintenance of the baseline situation.
Medium	A landscape whose character is moderately capable of accepting change of the nature proposed. • The landscape has moderate ability to accommodate the nature of the proposed development without undue consequences for the maintenance of the baseline situation.
Low	A landscape whose character is tolerant to substantial change of the nature proposed. • The landscape has significant potential to accommodate the nature of the proposed development without undue consequences for the maintenance of the baseline situation.

[4] Setting of a heritage asset: "The surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral". (Annex 2: Glossary, National Planning Policy Framework).

Overall landscape sensitivity

4.19 To reach an assessment of the **sensitivity** of the landscape, 'Susceptibility' and 'Value' are then combined using Table X below.

Table X – Sensitivity of receptors

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

5. DESCRIPTION OF THE PROPOSALS

5.1 Following the recording of the baseline the proposals are described at a level of detail applicable to the application.[5]

6. THE PROCESS OF LANDSCAPE ASSESSMENT

6.1 Recording of the landscape baseline and the description of the proposals is followed by a systematic identification of likely effects on the landscape receptors (key constituent elements); and ultimately, an assessment on the effects on overall landscape character.

6.2 As for the visual effect assessment the process involves considering the sensitivity of receptors, the magnitude of effect, and making an assessment of the significance (or level) of effect.

Sensitivity of receptors x Magnitude of effect = Significance of effect

Determining the magnitude of landscape effect

6.3 The **magnitude** of landscape effect predicts the degree to which changes will occur to overall landscape character as a result of the proposed development. Change may arise from built form, engineered forms and / or from soft landscape elements of the development.

6.4 The magnitude of effect is considered in accordance with Table Y below. This involves careful consideration of the complex interrelationships between the landscape receptors considered and the elements set out below. An informed professional judgement is made on these relationships and whether effects are positive or negative (or neutral) and their consequences for landscape character.

6.5 In doing so it should be noted that the focus is not primarily on changes on the Site itself (for which there will inevitably be changes as a consequence of development), but the effects on wider landscape character. For each element consideration is given to the following:

Size or scale

- The size / scale of change, both in terms of loss of existing features and addition of new features and the proportion of the total extent this represents.

  In considering the size / scale of change, the contribution that the component makes to the character of the landscape; and whether the effect changes the key characteristics of the landscape which are critical to its distinctive character are considered.

Geographical extent of the area influenced

- The geographical extent over which the landscape effects will be felt is considered using the following categories:
  - Site level;
  - The immediate setting of the Site;
  - The entire Landscape Type or Character Area; or
  - Over Several Landscape types / Character Areas.

Reversibility

- The reversibility of the effect is considered with reference to:
  - Whether the change is temporary or permanent;
  - Whether the effect is reversible or irreversible;
  - Whether the effect is avoidable or unavoidable.

The type of effect

- The type of effect is considered, including:
  - Whether the effect is direct or indirect.[6]
  - Whether the effect is adverse, beneficial or neutral.

6.6 For each of these, duration is also considered using the time periods agreed during the scoping process (in this case year 1; year 7; and year 15). In this way the effectiveness of mitigating measures over time is considered within the assessment process.

6.7 In considering the effects on overall landscape character the assessment of magnitude takes account of the whole landscape resource. One development could have a significant effect on a single element of the landscape but minimal effects on all other components – whilst another may have lots of less significant effects. By considering all aspects of the landscape at this stage a considered assessment of the overall effect on landscape character is made.

[5] The description of proposals is constantly updated throughout the preparation of the proposals and the landscape effects assessment, thereby ensuring modifications to the design are reflected in the assessments presented.

[6] A direct effect results from the development itself. An indirect (or secondary) effect results from consequential change resulting from the development – e.g. alterations to a drainage regime which might change the vegetation downstream with consequences for the landscape (GLVIA3 Paragraph 3.22).

Table Y – Magnitude of effect on overall landscape character

Magnitude of effect	Criteria for assessing magnitude of landscape effects on overall landscape character
High adverse	The proposals are extremely damaging to overall landscape / townscape character in that they would cause total loss of, or substantial alteration to, key components of the baseline landscape / townscape. Guidance: ▪ they create a landscape / townscape whose character: o Is at total variance with the layout, mix, scale and appearance of the landscape / townscape. o Would introduce components considered to be totally uncharacteristic of the attributes of the receiving landscape / townscape. o Would be severely damaging to a high quality or highly vulnerable landscape / townscape, causing it to change and be substantially diminished in quality. o Is likely to destroy the integrity of a range of characteristic features and components and their setting. o Destroys existing sense of place. o Mitigation has little effect.
Medium-high adverse	The proposals are very damaging to overall landscape / townscape character in that they would cause major loss of, or major alteration to, key components of the baseline landscape / townscape. Guidance: ▪ they create a landscape / townscape whose character: o Is at considerable variance with the layout, mix, scale and appearance of the landscape / townscape. o Would introduce components considered to be substantially uncharacteristic of the attributes of the receiving landscape / townscape. o Would be substantially damaging to a high quality or highly vulnerable landscape / townscape, causing it to change and be considerably diminished in quality. o Is likely to degrade or diminish the integrity of a range of characteristic features and components and their setting. o Substantially damages existing sense of place. o Cannot be adequately mitigated.
Medium adverse	The proposals are damaging to overall landscape / townscape character in that they would cause partial loss of, or moderate alteration to, key components of the baseline landscape / townscape. Guidance: ▪ they create a landscape / townscape whose character: o Is out of scale or at odds with the layout, mix, scale and appearance of the existing landscape / townscape. o Would introduce components considered to be considerably uncharacteristic of the attributes of the receiving landscape/townscape. o Would have an adverse effect on a landscape / townscape of recognised quality or on vulnerable and important characteristic features or components. o Moderately damages existing sense of place. o Cannot be largely mitigated – mitigation would not prevent the scheme from impacting the landscape / townscape in the longer term.
Medium-low adverse	The proposals are slightly damaging to overall landscape / townscape character in that they would cause minor loss of, or slight alteration to, key components of the baseline landscape / townscape. Guidance: ▪ The proposals are slightly damaging to the landscape in that they create a landscape whose character: o Does not quite fit into the layout, mix, scale and character of the landscape / townscape. o May introduce components that may not be characteristic of the attributes of the receiving landscape/townscape. o May have a slight adverse effect on a landscape / townscape of recognised quality. o Slightly damages existing sense of place. o Cannot be completely mitigated due to the nature of the proposal itself or the character of the landscape.
Low adverse	The proposals cause minimal damage to overall landscape / townscape character in that they would cause very minor loss or alteration to key components of the baseline landscape / townscape. Guidance: ▪ The proposals cause minimal damage to the landscape / townscape in that they cause little effect on character, or incorporate measures for mitigation that largely balance any adverse effects and therefore create a landscape / townscape whose character: o Largely matches the layout, mix scale and appearance of the existing landscape/townscape. o Introduces components not considered uncharacteristic of the surrounding landscape/townscape. o Largely maintains existing landscape / townscape quality and character. o Largely maintains existing sense of place.
No change / Neutral	The proposals would cause no change to key components of the receiving landscape / townscape; or The proposals are in keeping with the existing landscape despite changes that occur; or Positive effects balance the negative effects of change.

Continued ...

Table continued below ….

Low beneficial	The proposals would be of minimal benefit to overall landscape / townscape character in that they will cause very minor enhancement to key components of the baseline landscape / townscape. Guidance: ▪ The proposals cause minimal benefit to the landscape / townscape in that they cause little beneficial effect on character, and incorporate measures for mitigation that balance any adverse effects and therefore create a landscape / townscape whose character: o Matches or fractionally improves the layout, mix scale and appearance of the existing landscape/townscape. o Introduces components that are broadly characteristic or fractionally improve the characteristics of the surrounding landscape/townscape. o Maintains or fractionally improves existing landscape / townscape quality and character. o Maintains or fractionally improves existing sense of place.
Medium-low beneficial	The proposals would be of slight benefit to overall landscape / townscape character as they would cause minor enhancement to key components of the baseline landscape / townscape. Guidance: ▪ The proposals would slightly enhance the landscape/townscape as they create a landscape / townscape whose character: o Slightly improves the layout, mix, scale and appearance of the surrounding landscape / townscape. o Introduces components that slightly improve the characteristics of the receiving landscape/townscape. o Slightly enhances existing landscape / townscape quality and character. o Would enable some sense of place and quality to be restored or enhanced through beneficial and sensitive design. o Incorporate measures for mitigation to ensure they would blend in well with the surroundings.
Medium beneficial	The proposals would be of moderate benefit to overall landscape / townscape character as they would cause moderate enhancement to key components of the baseline landscape / townscape. Guidance: ▪ The proposals would moderately enhance the landscape/townscape as they create a landscape / townscape whose character: o Moderately improves the layout, mix, scale and appearance of the landscape / townscape. o Introduces components that moderately improve of the attributes of the receiving landscape/townscape. o Would have a moderately positive effect on existing landscape / townscape quality and character. o Enables the restoration of some characteristic features or components. o Would enable moderate sense of place and quality to be restored or enhanced through beneficial and sensitive design.
Medium-high beneficial	The proposals would be of major benefit to overall landscape / townscape character as they would cause major enhancement of key components of the baseline landscape / townscape. Guidance: ▪ The proposals would significantly enhance the landscape/townscape as they create a landscape / townscape whose character: o Considerably improves the layout, mix, scale and appearance of the landscape / townscape. o Introduces components that considerably improve the attributes of the receiving landscape/townscape. o Would have a considerably positive effect on a high quality or highly vulnerable landscape / townscape, causing it to be considerably enhanced in quality. o Enables the restoration of several characteristic features or components. o Would enable the sense of place and quality of a landscape of recognised quality to be considerably restored through beneficial and sensitive design.
High beneficial	The proposals would be of substantial benefit to overall landscape / townscape character as they would cause substantial enhancement of key components of the baseline landscape / townscape. Guidance: ▪ The proposals would substantially enhance the landscape/townscape as they create a landscape / townscape whose character: o Substantially improves the layout, mix, scale and appearance of the landscape / townscape. o Introduces components that substantially improve the attributes of the receiving landscape/townscape o Would have a substantially positive effect on a high quality or highly vulnerable landscape / townscape, causing it to be substantially enhanced in quality. o Enables the restoration of many characteristic features or components. o Would enable the sense of place and quality of a landscape of recognised quality to be fully restored through beneficial and sensitive design.

Landscape effect significance

6.8 The last stage of the process of landscape effect assessment involves the determination of the **significance of effect** on overall landscape character.

6.9 To do so the **sensitivity** of the landscape and the **magnitude** of effect are combined using Table Z below.

Table Z – Landscape effect significance matrix

		Sensitivity of landscape receptors		
		High	**Medium**	**Low**
Magnitude of effect	**High adverse**	Severe adverse effect	Substantial adverse effect	Major adverse effect
	Medium-high adverse	Substantial adverse effect	Major adverse effect	Moderate adverse effect
	Medium adverse	Major adverse effect	Moderate adverse effect	Slight adverse effect
	Medium-low adverse	Moderate adverse effect	Slight adverse effect	Very slight adverse effect
	Low adverse	Slight adverse effect	Very slight adverse effect	Negligible adverse effect
	No change / Neutral	Neutral effect	Neutral effect	Neutral effect
	Low beneficial	Slight beneficial effect	Very slight beneficial effect	Negligible beneficial effect
	Medium-low beneficial	Moderate beneficial effect	Slight beneficial effect	Very slight beneficial effect
	Medium beneficial	Major beneficial effect	Moderate beneficial effect	Slight beneficial effect
	Medium-high beneficial	Substantial beneficial effect	Major beneficial effect	Moderate beneficial effect
	High beneficial	Abundant beneficial effect	Substantial beneficial effect	Major beneficial effect

EIA regulations – "Significant" landscape effects

6.10 As set down in GLVIA3 (and as required under EIA legislation) the aim of this assessment is to determine any "Significant" landscape effects.

6.11 "Significant" effects vary from project to project and are appropriate to the nature, size and location of the proposed development. In this case, as for the visual assessment, in terms of the EIA Regulations and for the purposes of planning, only 'major', 'substantial' and 'severe' adverse effects are considered "Significant".

6.12 It is important to note, however, that in considering the effects on overall landscape character, all of the constituent elements which contribute to landscape character are considered. Whilst EIA regulations only require the "Significant" effects to be identified (both adverse and beneficial) it is clearly important, in considering the overall effects of a development, to consider not only those receptors experiencing greater effects, but those with lesser effects as well. In concluding the overall impact on landscape character it is important that the focus does not become purely on a single or limited number of effects, when the bigger picture may be one of generally minimal effects (and may also include beneficial as well as adverse effects).

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LANDSCAPE AND VISUAL EFFECTS OF A PROPOSED CREMATORIUM AT TURNERS HILL, WEST SUSSEX

APPENDIX B
VISUAL IMPACT ASSESSMENT METHODOLOGY

for
HARTMIRES INVESTMENTS LTD.

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INTRODUCTION

Visual effects are the effects on people (visual receptors) from changes in the character of available views resulting from development; and the changes in the visual amenity[1] of the visual receptors.

The process of visual effect assessment is therefore concerned with assessing how the surroundings of individuals (or groups of people) may be specifically affected by changes in the context and character of views as a result of the change or loss of existing elements of the landscape and / or introduction of new elements.

This document forms an Appendix to the Landscape and Visual Appraisal (LVA) prepared for the proposed crematorium at Turners Hill, West Sussex.

It contains the detailed methodology applicable to the visual effect assessment undertaken for the project and should be read in conjunction with main LVA.

BASIS OF ASSESSMENT

The methodology set out below is based on the 'Guidelines for Landscape and Visual Impact Assessment' (GLVIA3) prepared jointly by the landscape Institute and the Institute of Environmental Management and Assessment and published on the 17th April 2013. This publication contains the latest guidance on the subject of visual effect assessment, and is widely acknowledged to represent the 'industry standard' on the subject.

In addition, all photos have been taken and presented in accordance with Landscape Institute Technical Guidance Note (TGN) 06/19 which was formally adopted on the 17th September 2019.

[1] Visual amenity means the overall pleasantness of the views that receptors enjoy of their surroundings (GLVIA Paragraph 2.20).

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VISUAL EFFECT ASSESSMENT METHODOLOGY

1. INTRODUCTION

1.1 The process of visual effect assessment is divided into the following stages:

- **Determining the Zone of Visual Influence of the development and identifying the nature of visual receptors.**
- **Selecting viewpoints to be assessed.**
- **Establishing a detailed baseline for each viewpoint selected.**
- **Presentation of photographs.**
- **The process of visual effect assessment.**

1.2 The details of each of these are set out below.

2. DATA SOURCES

2.1 Data sources used in the preparation of the visual assessment are cited within footnotes within the main Landscape and Visual Appraisal document. Sources include Ordnance Survey maps, aerial photography, and interactive websites.

3. DETERMINING THE ZONE OF VISUAL INFLUENCE OF THE DEVELOPMENT

3.1 The first stage of visual effect assessment involves identification of a preliminary study area and subsequent mapping of the visibility of the development proposals to determine the estimated Zone of Visual Influence of the development through a combination of desk study and fieldwork.

3.2 Once established, the Zone of Visual Influence establishes the detailed study area for the landscape baseline (refer to Appendix A).

Desk study

3.3 The potential extent of visibility of the development proposals is first established by identifying possible viewpoints through a desktop study of Ordnance Survey maps; web based mapping tools; and aerial photography.

3.4 From this information a preliminary Zone of Visual Influence (ZVI) is determined and mapped manually. At this stage the preliminary ZVI illustrates the potential visibility of the proposed development in the landscape. It takes into consideration the likely screening effects of topography and significant areas of vegetation, but is broad scale and requires refinement.

3.5 Digital methods using specialist software can be useful as an aid at this stage of the process to establish the ZVI (referred to as the 'Zone of Theoretical Visibility' (ZTV) if digital methods are used), however, such methods take little or no account of potential screening by vegetation or built form[2] and have not been used for this assessment.

Fieldwork

3.6 Having undertaken the desktop study the preliminary ZVI is checked and revised through extensive on-site fieldwork.

3.7 On completion of the fieldwork an estimated 'Zone of Visual Influence' is mapped and a good degree of accuracy is obtained.[3] At this stage the estimated 'Zone of Visual Influence' includes all areas of the surrounding townscape / countryside from where development of the nature described in the development proposals section of the LVA may be seen either from ground level or from within buildings.

4. IDENTIFYING THE NATURE OF THE VISUAL RECEPTORS

4.1 Having established the estimated Zone of Visual Influence, the people (visual receptors) using the various areas within this zone are identified.

4.2 People have differing responses to changes to views and visual amenity depending on both the context and their purpose for being in a particular place. They are therefore identified according to their activity and location.

4.3 Receptors from public viewpoints (land and buildings with public access) may include:

People passing through the area on transport routes. ▪ Arterial routes (motor ways / dual carriageways / trunk roads). ▪ Major roads (A roads). ▪ Minor roads (B and C class roads). ▪ Railways (excluding scenic routes). ▪ Waterways used for transport. ▪ Cycle routes used primarily for commuting.	People using facilities / undertaking activities specifically associated with experience and enjoyment of the landscape. ▪ Use of Public Rights of Way (Footpaths / Bridleways / Byways / Cycle routes (rural) / Rural lanes). ▪ Scenic routes (National Trail / Long Distance Route). ▪ Open access land. ▪ Acknowledged viewpoints. ▪ Tourist facilities. ▪ Canals and rivers used for recreation.

Table continued below ….

[2] There is some discussion on page 103 of GLVIA3 on the use of computer modelling; but acknowledgement that this has limitations and that "*site surveys are therefore essential to provide an accurate baseline assessment of visibility*".

[3] The Zone of Visual Influence takes into consideration the screening effects of topography, built form and areas of vegetation as noted from the site work, however, it is estimated (as access to private land is not possible) and it should be recognized that there will always be areas within the ZVI shown on the drawings where the complexity of landscape / townscape makes it impossible reasonably to delineate the exact visibility of the proposed development. For example, there will be areas of private land within the mapped ZVI where localised intervening vegetation or buildings screen the site from view. In reality, there will be some areas within the mapped ZVI where the proposed development will not be visible, and there may be some un-mapped areas where glimpses of the proposed development would exist.

People visiting promoted landscapes or attractions. ▪ National Parks. ▪ AONB. ▪ Scenic railways.	People engaged in recreation activities of different types. ▪ Formal sorts such as football / rugby etc. ▪ Golf. ▪ Horse riding.
People located in the setting of a heritage asset.[4] ▪ National Trust properties. ▪ Registered Parks and Gardens. ▪ Conservation Areas. ▪ Listed Buildings. ▪ Scheduled Ancient Monuments.	People living and working in the area. ▪ Roads / Pavements used by locals and for commuting. ▪ People using local facilities (eg station, supermarket or public library).

4.4 Receptors from private viewpoints (land and buildings with no public access) may include:

People living in the area (houses / flats and private gardens).	People working in commercial / industrial premises.
(**Note:** In large parts of the estimated ZVI (for example on farmer's fields) there will be no public access and very few people will experience visual effects created by the proposed development. The effects on receptors in these locations are not normally assessed).	

5. SELECTING VIEWPOINTS

5.1 Following the fieldwork; establishment of the estimated ZVI; and identification of the visual receptors in each area, a number of representative viewpoints from locations within the public domain[5] are selected for assessment of the visual effects.

5.2 In the case of these proposals, following the scoping exercise, viewpoints from private residences within the private domain have also been selected (details of the scoping assessment stage are contained within Section 1 of the main LVA). Where appropriate properties have been grouped so that those where the effects will be similar are assessed together. These assessments are based on views from publicly accessible locations close to properties and from views looking out from the Site, however, it should be noted that no access has been gained to these residences.

5.3 Viewpoints selected can be:

1. **Representative viewpoints**: Chosen to represent the effects experienced from a number of viewpoints which cannot all be included individually, and where the significance of effects are unlikely to differ (for example a viewpoint chosen to represent views along a particular footpath).
2. **Specific viewpoints**: Chosen because they are key and sometimes promoted viewpoints within a landscape, or to assess views from specific private residences.
3. **Illustrative viewpoints**: Chosen to demonstrate a particular effect or specific issue (which might, for example, be the restricted visibility at certain locations; or the effect of distance).

5.4 Selection takes account of a range of factors including accessibility; sensitivity and potential numbers of receptors who may be affected; viewing distance, direction and elevation; the nature of the viewing experience (static, sequential); the type of view (glimpse, vista, panorama); and the potential for cumulative views in conjunction with other developments.

5.5 Viewpoints are chosen to:

1. Cover as wide a range of situations as possible (from locations both near to the Site and more distant).
2. Cover important sequential views along key routes.
3. Cover the full range of different visual receptors who may be affected.
4. Demonstrate the influence of distance.
5. Demonstrate the effects on any specific landmarks or heritage assets.
6. Be as typical as possible of views likely to be experienced in each location.

5.6 The emphasis here is on proportionality in relation to the scale and nature of the development proposal and its likely "Significant"[6] effects.

6. DETERMINING THE SCOPE

6.1 Having determined the ZVI; established the nature of visual receptors; and considered appropriate viewpoints for assessment the scope of the visual assessment can then be determined.

6.2 Elements considered / agreed in this exercise include:

- The extent of the study area (based on the survey work undertaken).
- The location of viewpoints to be examined in detail.
- The duration of the assessments (short, medium and long term).
- The requirement for seasonal assessments (summer and winter).
- The eye level for assessments undertaken (generally 1.6m).

[4] Setting of a heritage asset: "The surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral". (Annex 2: Glossary, National Planning Policy Framework).

[5] Planning is primarily concerned with effects on the public domain.

[6] Refer to paragraphs 10.17 – 10.19 below for definition of "Significant".

- The requirement for assessments from private residences / land.
- The requirement for assessments during an enabling works demolition phase; the construction phase; and during a potential future decommissioning phase.
- The requirement for assessments at night.
- The requirement for cumulative assessments.
- The requirement for future monitoring.

6.3 GLVIA3 places an emphasis on determining a reasonable approach (proportional to the scale and nature of the development proposed). It is, therefore, normal to "scope out" those potential impacts which are felt to be unnecessary or unreasonable (given the nature of the proposals in question).

6.4 Details of the scoping assessment stage are contained within Section 1 of the main Landscape and Visual Appraisal to which this methodology forms an Appendix.

7. ESTABLISHING THE BASELINE FOR EACH VIEWPOINT TO BE ASSESSED

7.1 Having established the scope of the assessment the visual baseline is recorded for each viewpoint selected.

7.2 For each viewpoint selected a photographic record is presented (in this case taken in summer - refer to Section 8 within the main LVA and Appendix D) and details of the location, nature of the existing view, and nature of receptors, are recorded in tabular form also within Section 8:

- Viewpoint locations are accurately mapped and the approximate direction of the view; approximate elevation; approximate horizontal view angle covered by the photograph presented; approximate distance to the closest edge of site; landscape and heritage designations at the viewpoint; and any other comments are recorded (the intention being that sufficient information is provided to allow any person to return to the location and record the same view).
- A description of the existing view is recorded, including a description of the extent of the Site visible.
- The Sensitivity of Visual receptors is also recorded in these tables (although this forms part of the assessment process set out below), which includes a recording of the focus of receptors; activity of receptors; whether the receptors are stationary or transient (so see the view only for a short time); and an estimate of the approximate / relative numbers of people at each viewpoint.[7]

8. PRESENTATION OF PHOTOGRAPHS

8.1 Assessment photographs are presented in Appendix 6. These were taken with a Nikon D3500 digital SLR camera with a fixed 35mm focal length lens and a multiplication factor of 1.53 to give the equivalent of 52.5mm focal length. They replicate normal eye level viewed at 1.6 metres above ground level and are presented in Appendix D with viewing distances stated; all in accordance with Landscape Institute Technical Guidance Note 06/19.

9. DESCRIPTION OF THE PROPOSALS

9.1 Following the recording of the visual baseline the proposals are described at a level of detail applicable to the application.[8]

10. THE PROCESS OF VISUAL ASSESSMENT

10.1 Recording of the visual baseline and the description of the proposals is followed by a systematic identification of likely effects on potential visual receptors at each viewpoint.

10.2 The process involves considering the sensitivity of receptors, the magnitude of change and making an assessment of the significance (or level) of effect.

Sensitivity of visual receptors x Magnitude of effect = Significance of effect

Determining the sensitivity of visual receptors

10.3 The first stage of the assessment process involves determining the sensitivity of the visual receptors.

10.4 Visual receptors at each viewpoint selected for assessment are identified and evaluated (using table A below) according to:

- Their susceptibility to change in a view and visual amenity.
- The value attached to each particular view.

10.5 Susceptibility is a function of the occupation / activity of the receptor at that particular location and, as a consequence, the extent to which their attention / interest may therefore be focused on the view and the visual amenity they experience.

10.6 Value takes account of value attached to views in relation to heritage assets; planning designations; and value attached to views by visitors (often indicated by reference to views in art[9] / literature[10] / in guidebooks / on tourist maps / and by the provision of facilities for the enjoyment of the views (such as sign boards / interpretative materials / parking areas and benches)).

[7] As no firm data on the exact numbers of people using footpaths / roads etc is available, this is made in the form of a relative judgement (high / medium / low etc.), however, it should be recognised that the number of people at any viewpoint does not affect the sensitivity of an individual receptor or the magnitude of effect from a viewpoint. The relative numbers of people at each viewpoint may simply be referred to, therefore, in concluding the overall visual assessment.

[8] The description of proposals is constantly updated throughout the preparation of the proposals and the visual effects assessment, thereby ensuring modifications to the design are reflected in the assessments presented.

[9] For example Constable's view of Salisbury Cathedral from the Bishop's Ground.

[10] For example references to Stonehenge in Thomas Hardy's writings; or to views of Top Withens (the Wuthering Heights farmhouse) in Emily Bronte's 'Wuthering Heights'.

Table A – Susceptibility and Value

	Susceptibility	Value
High	Viewers whose focus is primarily on the landscape setting: • Viewers using designated Public Rights of Way (Roads / Footpaths / Bridleways / Restricted Byways / Byways open to all traffic (BOAT's)); Access Land; or railways for the enjoyment of the countryside / townscape. • Viewers within gardens and living areas of residential properties (rooms normally occupied during waking / daylight hours).	• Viewers within landscapes designated for the preservation of the beauty of the countryside at a national level (National Parks, AONB's). • Viewers within Conservation Areas. • Viewers from the setting of a Scheduled Ancient Monument or Listed Building or Registered Parks and Gardens. • Nationally famous viewpoints referenced in art or literature. • Viewpoints shown on Ordnance Survey maps – or which are locally well-known, and may also be referenced in guidebooks / on tourist maps. Facilities may be provided for the enjoyment of the view (such as sign boards / interpretative materials).
Medium	Viewers whose focus is not primarily on the landscape setting, but who may value the setting as part of the activity in which they are involved: • People engaged in outdoor recreational sports. • Viewers using roads for local access. • Viewers accessing residential properties. • Viewers using Public Rights of Way and other areas with public access other than for specific enjoyment of the countryside / townscape (eg for local access). • Recreational area user groups. • Viewers within sleeping areas of residential properties.	• Viewers within landscapes judged to be of moderate or good strength of character (potentially identified in local Landscape Character Assessments). • Viewers within areas with local landscape / townscape designations. • Viewpoints where locally valued features are a major component of the scene. • Viewers within residential areas. • Viewpoints where limited facilities may be provided for the enjoyment of the view (such as / parking areas / benches), but no references on Ordnance Survey maps.
Low	Viewers whose focus is primarily on the activity in which they are involved and not on the landscape setting and / or whose view may be transitory: • Viewers travelling through an area on trains or in vehicles on major roads. • Viewers working in commercial premises. • Viewers working in and around industrial premises • People engaged in formal sports.	• Viewers within landscapes judged to be of limited strength of character / no particular merit (potentially identified in local Landscape Character Assessments). • No national or townscape designations. • No specific references to the location in art / literature / guidebooks / tourist maps. • No facilities provided. • Views dominated by negative elements in the scene or negative experiential aspects of the viewpoint (for example a viewpoint dominated by a noisy road).

10.7 When there are visual receptors of differing susceptibility to change to consider in one particular location, the estimated frequency of use by each receptor will normally determine the overall susceptibility of receptors from that location. For instance, when local roads are frequently used by walkers as part of a popular walk or a National Trail the high susceptibility receptor (viewers using designated Public Rights of Way for the enjoyment of the countryside) will take precedence. However, when local roads are only used by occasional walkers then the medium sensitivity receptor (viewers using roads for local access) will take precedence. Only in specific situations will both be assessed.

10.8 To reach an assessment of the **sensitivity** of each receptor, 'Susceptibility' and 'Value' are then combined using table B below. For example, a receptor playing a football match (low susceptibility) in a National Park (high value) would have a medium level of sensitivity.

Table B Sensitivity of receptors

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

Determining the magnitude of visual effect

10.9 Having determined the Sensitivity of receptors the magnitude of effect is assessed.

10.10 The magnitude of a visual effect considers the degree to which changes in views and visual amenity will occur as a result of the proposed development. Change may arise from built form, engineered forms and / or from soft landscape elements of the development.

10.11 Each of the visual effects identified is evaluated in terms of its size / scale, the geographical extent of the area influenced, the duration and reversibility, and the type of effect.

10.12 For each viewpoint and assessment period chosen, consideration is given to:

The nature of the view

- The distance of the viewpoint from the proposed development.
- The angle of the view in relation to the receptor: oblique / straight on;
- The nature of the view: panoramic, open, contained, filtered, fragmented, glimpse;
- Whether the view is stationary or transient[11] or one of a sequence of views.

Reversibility

- Whether the change is temporary or permanent;
- Whether the effect is reversible or irreversible;
- Whether the change is avoidable or unavoidable.

The nature of the visual effect

- The proportion of the development visible.
- Degree of change in the view (the extent of the view over which changes would be evident) / the proportion of the view occupied by the development.
- Extent of change in composition of the view (eg change from field to built development).
- Whether the development is the focus of view due to proximity / scale.
- Features lost from the view, and their extent.
- New features – both man-made objects and vegetation with particular features noted – (Is there a new visual focus in the view).
- Change in visual scale.
- Change in the degree of visual enclosure.
- Change to the skyline.
- Change in the simplicity/complexity of the view.
- The degree of contrast / integration of any new features or changes in the landscape with existing / remaining landscape elements / characteristics in terms of form, scale / mass, line, height, colour, texture.
- The effectiveness of mitigating measures.
- Whether there is a deliberate relationship with another heritage asset, and if so, how this is affected.
- If a heritage asset is seen, whether it is a designed view, major component or an incidental element, and whether the view of it has changed (improved, lost, partially retained).
- If the site is seen in a designed view from a heritage asset, whether it is in the immediate, wider or extended setting.

The type of effect

- Adverse, beneficial or neutral.

10.13 Magnitude of effects are then determined using the guidance in table C below. Considering the magnitude of effect involves careful consideration of the complex interrelationships between the differing elements set out above. An informed professional judgement is made on these relationships and whether visual effects are positive or negative (or neutral) and their consequences for views and visual amenity. This is based on a judgement about whether the changes will affect the quality of the visual experience for those groups of people who will see the changes, given the nature of the existing views.

[11] Oxford English dictionary definition of transient is "lasting only for a short time"

Table C – Magnitude of visual effects

Magnitude of effect	Guidance for assessing magnitude of visual effects
High adverse	The development proposals would have a substantially detrimental effect on the character of the scene, becoming the dominant feature to which all other elements are subordinate.
Medium-high adverse	Where the development proposals would have a considerably detrimental effect on the character of the scene.
Medium adverse	Where the development proposals would have a moderately detrimental effect on the character of the scene.
Medium-low adverse	Where the development proposals would have an appreciably detrimental effect on the character of the scene.
Low adverse	Where the development proposals would have a slightly detrimental effect on the character of the scene.
Neutral	Where the development proposals would, on balance, have little effect on the scene and are neither adverse or beneficial: • The development cannot be seen or • The development would be scarcely appreciated in the overall view, and/or • The view may have changed but the overall effect is no worse or better than the existing.
Low beneficial	Where the development proposals would cause a slight improvement in the overall scene.
Medium-low beneficial	Where the development proposals would cause an appreciable improvement in the overall scene.
Medium beneficial	Where the development proposals would cause a moderate improvement in the overall scene.
Medium-high beneficial	Where the development proposals would cause a considerable improvement in the overall scene.
High beneficial	Where the development proposals would cause a substantial improvement in the overall scene / sense of place restored.

Visual effect significance

10.14 The overall **visual effect significance** is then determined by combining the sensitivity of the individual receptors and the magnitude of visual effect. These are defined in Table D.

Table D – Visual effect significance matrix

		Sensitivity of visual receptors		
		High	**Medium**	**Low**
Magnitude of effect	**High adverse**	Severe adverse effect	Substantial adverse effect	Major adverse effect
	Medium-high adverse	Substantial adverse effect	Major adverse effect	Moderate adverse effect
	Medium adverse	Major adverse effect	Moderate adverse effect	Slight adverse effect
	Medium-low adverse	Moderate adverse effect	Slight adverse effect	Very slight adverse effect
	Low adverse	Slight adverse effect	Very slight adverse effect	Negligible adverse effect
	Neutral	Neutral effect	Neutral effect	Neutral effect
	Low beneficial	Slight beneficial effect	Very slight beneficial effect	Negligible beneficial effect
	Medium-low beneficial	Moderate beneficial effect	Slight beneficial effect	Very slight beneficial effect
	Medium beneficial	Major beneficial effect	Moderate beneficial effect	Slight beneficial effect
	Medium-high beneficial	Substantial beneficial effect	Major beneficial effect	Moderate beneficial effect
	High beneficial	Abundant beneficial effect	Substantial beneficial effect	Major beneficial effect

The use of photomontage to assist in the assessment process

10.15 Photomontages have not been prepared for this project.

EIA regulations, Planning and "Significant" visual effects

10.16 As set down in GLVIA3 (and as required under EIA legislation) the aim of assessment is to determine any "Significant" visual effects.

10.17 "Significant" effects vary from project to project and are appropriate to the nature, size and location of the proposed development. In this case, as for the landscape assessment, in terms of the EIA Regulations and for the purposes of planning, only 'major', 'substantial' and 'severe' adverse effects are considered "Significant".

10.18 However, those viewpoints where the effects are not considered to be "Significant" are considered in the main LVA and are not disregarded. Whilst EIA regulations only require the "Significant" effects to be identified (both adverse and beneficial) it is clearly important, in considering the overall visual effects of a development, to consider not only those receptors experiencing "Significant" effects, but those with lesser effects as well. In concluding the overall impact of a development it is important that the focus does not become purely on a single or limited number of "Significant" effects, when the bigger picture may be one of generally minimal effects (and may also include beneficial as well as adverse effects).

INDIGO

LANDSCAPE AND VISUAL IMPACT APPRAISAL

LANDSCAPE AND VISUAL EFFECTS OF A PROPOSED CREMATORIUM AT TURNERS HILL, WEST SUSSEX

APPENDIX C
TECHNICAL METHODOLOGY - PRESENTATION OF PHOTOGRAPHS

for
HARTMIRES INVESTMENTS LTD.

July 2020
REF: 917-LVA 2020-07-27 Rev A

In the interest of sustainability, this document is intended to be printed double sided on A3 paper.

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APPENDIX C: Technical Methodology - Presentation of Photographs

I.1. Introduction

I.1.1. All photographs presented within this Appraisal are "Type 1" visualisations (Annotated Viewpoint Photographs), presented in accordance with Landscape Institute Technical Guidance Note (TGN) 06/19.

I.2. Camera equipment used

I.2.1. Photographs have been taken with a Nikon D3500 digital SLR camera (cropped frame sensor) with a fixed 35mm focal length lens (Nikon Nikkor AF-S 35mm f1.8G DX lens). The 35mm focal length together with the manufacturer's stated sensor multiplication factor of 1.53 gives an equivalent of 52.5mm focal length. All photographs have been taken at 1.6m above ground level to replicate normal eye level views.

I.3. Presentation of images

Panoramic images:

I.3.1. Photographs are presented at a minimum of 300dpi in PDF versions of the report, and are **intended to be viewed digitally.**

I.3.2. Cylindrical panoramic images have been presented throughout the Appraisal as humans typically have wider peripheral vision than the 39.6 degree Horizontal Field of View (HFoV) captured in a single photograph taken with a 'full frame' 50mm focal length SLR camera (or equivalent). Furthermore humans are not static, and when taking in a view we generally move our heads from side to side and therefore experience a wider field of view.

Software used:

I.3.3. All photographs have been stitched together using Photomerge ('reposition only' layout) in Adobe Photoshop, with manual control over image alignment.

Image enlargement:

I.3.4. The annotated viewpoint photographs are presented as enlarged images, with enlargement factors stated on individual photosheets. This is to account for the fact that humans generally have 'binocular' vision (whilst cameras are 'monocular' in nature) and that a degree of image enlargement provides a better impression of scale for most viewers using two eyes (refer to Landscape Institute Technical Guidance Note 06/19, Section 3.8). Our approach is therefore to use **150% enlargement** for viewpoints in expansive / open landscapes or seascapes, where components are more distant (in accordance with TGN 06/19, paragraph 3.8.8); and **125% enlargement** in mid to smaller scale landscapes / townscapes (refer to TGN 06/19, paragraph 3.8.10).

I.3.5. The presentation size of photographs has been calculated by horizontally measuring a 360 degree, manually stitched panoramic photo (taken using a Nikon D3500 camera and 35mm fixed focal length lens in landscape orientation) to establish the relationship between pixel dimensions and degrees of field of view. The camera produces an individual 6000 x 4000 pixel image with a field of view of 36.79 x 24.53 degrees. When printed and viewed at a distance of 542mm, the image must be presented at 353.49 x 235.66mm to match the real monocular view. This is subject to enlargement as described above.

Extent of the Site indicated:

I.3.6. The horizontal extent of the Site indicated on all the 'Type 1' visualisations is approximate (being based on reference to site features such as field or plot boundaries).

INSTRUCTIONS FOR VIEWING IMAGES:

As set out above (and on all photosheets), the photographs presented within this Appraisal are **intended to be viewed digitally.**

To correctly represent views on site, all images must be viewed with the horizontal markings ascending the left page border 100mm apart (achieved by adjusting PDF zoom level). The images should then be viewed at comfortable arm's length (exact mathematical reference point = 542mm from eye to image) by maintaining the head in a constant position (without turning) and panning the image from side to side. This maintains a constant viewing distance across the panorama and provides the best recommended representation of the view found on site.

If printed on A3 paper the images in the main report are for context only. A 125% enlargement reference image (showing the indicated insert within each image presented in the main report) is provided in Appendix G.