### APPENDIX D

LVIA Methodology

Landscape And Visual Impact Assessment (LVIA) Methodology



## METHODOLOGY FOR:

# LANDSCAPE AND VISUAL IMPACT ASSESSMENT (LVIA)

## Liz Lake Associates

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#### I INTRODUCTION

#### I.I Background

1.1.1 This document sets out the approach used by Liz Lake Associates, Chartered Landscape Architects & Urban Designers (LLA) to prepare a Landscape and Visual Impact Assessment (an Assessment) of the landscape and visual effects of a Site specific proposed development. It is based on guidance set out in the *Guidelines for Landscape and Visual Impact Assessment, Third Edition, 2013* (the Guidelines) published by the Landscape Institute/Institute of Environmental Management and Assessment.

#### 1.2 Scope of a Landscape and Visual Impact Assessment (LVIA)

- 1.2.1 An Assessment is undertaken when a development proposal has been finalised and detailed proposals are available to illustrate the precise form, nature, design and scale of the proposed development. It includes an assessment of the existing situation, identifies the likely landscape and visual effects of the proposed development and assesses the significance of those effects.
- 1.2.2 The data on the Landscape or Visual Baseline that describes the existing situation could be used for any form of development on the Site. The Proposals (whether in outline or detailed), the assessment of the effects of the Proposals, and the assessment of the ability of the Site to absorb change are specific to the development under consideration.
- 1.2.3 A similar approach should be adopted for townscape assessments (TVIA), which consider the character and visual attributes of an urban landscape. Some local authorities have produced specific townscape appraisals and assessments.

#### I.3 Photographs

1.3.1 Photographs are taken using a digital camera that aligns with the Visual Representation of Development Proposals -Technical Guidance Note, TGN 06/19 (which superseded LI Technical Advice Note 01/11).

#### **I.4** Proportionality

1.4.1 The Guidelines emphasize that an Assessment should be in proportion to the nature of the project that is being assessed and the nature of its likely effects. This Methodology sets out the full range of potential activities covering Assessment work; for smaller or simpler projects, the key principles will be followed but the scope of work may well be reduced accordingly.

#### 2 THE EXISTING SITUATION: THE LANDSCAPE BASELINE

#### 2.1 Scope of Work

- 2.1.1 The Guidelines (3.15) outline the scope of the baseline studies as follows:
  - 'For the landscape baseline the aim is to provide an understanding of the landscape in the area that may be affected its constituent elements, its character and the way this varies spatially, its geographic extent, its history (which may require its own specialist study), its condition, the way the landscape is experienced, and the value attached to it.
  - For the visual baseline the aim is to establish the area in which the development may be visible, the different groups of people who may experience views of the development, the places where they will be affected and the nature of the views and visual amenity at these points.'

#### 2.2 Establishing the Landscape Baseline

2.2.1 The location of the Site is identified in published National Character Areas, Local Landscape Character Assessments, supplementary planning documents such as green infrastructure proposals, countryside strategies, and published mapping. An assessment of the local landscape context is undertaken to identify how representative the locality of the Site is of the local landscape character type/area. Field work is undertaken in suitable weather conditions, by an experienced Chartered Landscape Architect.

#### 2.3 The Value of the Landscape

2.3.1 Desk studies and field surveys are used to appraise the baseline conditions of the Site itself, the 'fabric' of the landscape. Features, elements, combinations of elements and less tangible attributes such as the aesthetic qualities of the Site are considered. This considers a number of value attributes of the landscape including (but not limited to) landscape quality (condition), scenic qualities, rarity or distinctiveness, representativeness, conservation interests,



recreation value, perceptual aspects including wildness or tranquillity, and cultural association, which can help inform the overall value of the landscape.

- 2.3.2 Other criteria include replaceable / substitutable, frequency and presence or maybe the influence of incongruous elements, importance placed on the Site by stakeholders through designation or protection, local accessibility to the Site and its role in wider pattern of accessibility and its importance at a local, national or international level.
- 2.3.3 Studies such as those prepared by the local authority as part of their development planning / plan making process may provide specific insight to a site, general location or area and give an insight into factors influencing value. For example as part of a landscape sensitivity study, landscape value is one of the two components of landscape sensitivity (the other being susceptibility) (TGN 02-21, para 2.2.3).

#### 2.4 Value and Contribution to the Local Landscape Character

- 2.4.1 Having identified and evaluated the attributes of the Site, some methodologies may apply matrices scoring methods to the landscape. It is not a requirement to use matrices and GLVIA3 allows for a different approach.
- 2.4.2 This Methodology follows a narrative approach and describes aspects of value where features or attributes make a contribution to the overall local landscape character.
- 2.4.3 Value is expressed by reference to attributes highlighted in GVLIA3 Box 5.1 p.84 and the more recent LI TGN 02-21 publication, "*Assessing landscape value outside national designations*". Aspects of value are factors that contribute to character and should be referenced in a descriptive form to show how applicable to the site and/or surrounding context, this may include: Natural and Cultural heritage, Landscape condition, Associations, Distinctiveness (including Rarity), Recreational, Perceptual (Scenic qualities), Perceptual (Wildness or tranquillity) and Functional attributes.
- 2.4.4 The factors are not fixed and where present, they should be considered as appropriate to the project, taking into account how they might contribute (both positively and negatively) to the landscape.
- 2.4.5 Whilst LVIAs consider many types of landscape (or townscape), very often these locations will be everyday, ordinary landscapes. Nevertheless all landscapes, including undesignated landscapes have some value, and judgments about value should take into account the concept of Valued Landscape. Where the Site is considered to form part of a Valued Landscape (for the purposes of the NPPF National Planning Policy Framework) this should be highlighted.
- 2.4.6 The overall value of the site in its context should be given appropriate consideration. There may be instances where it should be acknowledged if a site has a lower value relative to its wider context which might be higher (e.g. a mineral working within an otherwise intact landscape; or, a brownfield development in an otherwise undeveloped landscape, for example).

#### 3 THE EXISTING SITUATION: ESTABLISHING THE VISUAL BASELINE

#### 3.1 Identifying Viewpoints

- 3.1.1 The Visual Baseline is an evaluation of the existing visual amenity in the locality and the contribution that the Site makes to existing visual amenity. Specific evaluations from identified viewpoints are used for the assessment of visual effects. A *viewpoint receptor* is a place from where there is a potential view of the Proposals and the *visibility* of the Proposals is the extent to which they may be seen from the receptor. This may be represented by a hand drawn or computer generated ZTV (Zone of Theoretical Visibility) and should be appropriate and proportionate to the project, in some cases it may be obvious where visibility extends.
- 3.1.2 Viewpoint receptors can be considered as representative, specific or illustrative. A selection of receptors that might have a view of the Proposals are identified and assessed, it is not necessary to include every single location, as long as the viewpoint selection covers a suitable range of receptors and types of view. The Guidelines (6.21) acknowledge that the approach should be proportional to the project; however, it is generally accepted that a range of factors will influence viewpoint selection (6.20). Eye level is taken as between 1.5m to 1.7m above ground level for pedestrians and approximately one metre above ground level for car occupants or cyclists. Unless special circumstances prevail, access is not usually made onto private property. The orientation of dwellings and surrounding vegetation that may influence views are noted.
- 3.1.3 When the Visual Baseline survey, judgement is also made of any likely change between summer and winter views, so that the year round effect is considered, taking into account deciduous or evergreen vegetation patterns. The survey is generally recorded on a location plan and accompanied by a photographic record, which may include winter views and/ or summer views. However, it is widely acknowledged that the timing of many projects means that viewpoint photography will likely occur once during the period of assessment.



#### 3.2 Visual Receptors

- 3.2.1 The location of people who may experience changes in views (visual receptors) is identified; the most susceptible/sensitive receptors are considered to be: residents at home; people who are engaged in outdoor recreation including public rights of way whose attention or interest is likely to be focused on the landscape and on particular views; visitors to heritage assets, or to other attractions, where views of the surroundings are an important contributor to the experience; communities where views contribute to the landscape setting enjoyed by residents in the area; travellers on recognised scenic routes and people at their place of work where views are an important contributor to their working life.
- 3.2.2 Visual receptors moderately susceptible/sensitive to change are considered to be travellers on road, rail or other transport routes.
- 3.2.3 Visual receptors likely to be less susceptible/sensitive to change are considered to be: people engaged in outdoor sport or recreation which does not involve or depend on the appreciation of views of the landscape; people at their place of work whose attention may be focused on their work or activity, not on their surroundings, and where the setting is not important to the quality of working life.
- 3.2.4 The existing visual amenity from viewpoint receptors is also taken into account when considering receptors using published surveys if they exist or using the professional judgement of an experienced landscape architect taking into account the value attached to particular views in the landscape. For example, the quality of an existing view is such that people would go out of their way to experience them (for example a prominent landmark or promoted viewpoint); equally, there may be context or surroundings that are influenced by built features where the experience is likely to be less valued.

#### 4 ASSESSMENT OF LIKELY LANDSCAPE EFFECTS

#### 4.1 The Proposals

- 4.1.1 For an Assessment the *Proposals* will be well advanced with the proposed plans available (layout, parameters, sections/elevations etc,.); this will include proposals to remove or change any existing landscape elements, the introduction of new landscape elements (the *Landscape Proposals*), the preparation of management proposals or a change of use that would affect the landscape. Phasing and construction are also considered.
- 4.1.2 The *Landscape Proposals* will include measures designed to avoid, reduce, remedy, or compensate for potential landscape and visual effects; this element of the Proposals is described as mitigation.

#### 4.2 Identifying the Landscape Effects

- 4.2.1 The *effects* are the changes to the Site, quantitative or qualitative, compared with a scenario without the Proposals. Effects can be adverse or beneficial, direct, indirect or cumulative. They can also be temporary or permanent, and should normally include the construction period.
- 4.2.2 An assessment is made of the ability (the susceptibility) of the existing landscape to accommodate the specific proposed changes (the proposals) without undue negative consequences on the baseline position.

#### 4.3 Assessing Susceptibility and Sensitivity for Landscape

- 4.3.1 The following definitions are used for this assessment although, as there are always many variables, it is sometimes necessary to review these for specific development proposals (or ascribe a rating in between High, Medium, Low) the core definitions, which are:
  - *High Susceptibility:* An established landscape where the landscape character is well defined and where even a small-scale development might cause the loss of key characteristics, individual elements or features and specific aesthetic or perceptual aspects or, overall landscape character
  - *Medium Susceptibility:* A landscape where well considered changes of an appropriate nature could be absorbed without the undue loss of key characteristics, individual elements or features and specific aesthetic or perceptual aspects or, overall landscape character
  - Low Susceptibility: A landscape (which could also be degraded or damaged) where appropriate change can be absorbed and could contribute to the enhancement (or restoration) of key characteristics, individual elements or features and specific aesthetic or perceptual aspects or, overall local landscape character, or the creation of a new landscape.



4.3.2 Sensitivity scores are derived from combining Landscape Value with Susceptibility, to arrive at a rating of High, Medium or Low Sensitivity (or an in between rating where appropriate). The use of Sensitivity and Capacity Studies (for example those used in the preparation of Local Plans) can help inform the background to sensitivity of an area or site. They can be a useful way of cross checking, and taking into account wider/ local issues, although it should be stated where variables occur.

#### 4.4 Magnitude of Change

- 4.4.1 With this Methodology magnitude of change is described but not ascribed a value. The description of the *magnitude* of change will include the likely *extent, scale* and *duration* of:
  - Changes to the existing landscape fabric (eg the loss of trees and hedges or other landscape features).
  - New elements introduced to the Site (built and natural).

#### 4.5 Assessment of the Significance of Landscape Effects

- 4.5.1 For each effect on the existing landscape receptors that is described, the significance of the effect is evaluated. Qualitative assessments of the significance are based on the nature of the attributes affected, the contribution that they make to local landscape character (their value), the susceptibility/sensitivity of the landscape receptor(s), and the *degree (or magnitude) of change* that the Proposals will produce. The effects of new elements are evaluated based on the *degree of change* that will result.
- 4.5.2 *Effects* can be *adverse* or *beneficial*. Where the Proposals are judged to cause deterioration to the landscape resource / local landscape character this is described as an *adverse effect*. Where the Proposals are judged to increase the value of the Site to the landscape resource / local landscape character this is described as a *beneficial effect*.
- 4.5.3 The definitions for the likely landscape effects are as follows (they can also fall in between the ranges given):
  - *Substantial adverse effect:* The Proposals would alter the following to a major degree: change the landscape character type; result in a total loss or major alteration to key attributes; cause a very apparent deterioration to the contribution that the Site makes or has the potential to make to the local landscape character; fail to contribute to green infrastructure; conflict with guidelines for the landscape character area and with government policy towards the protection and enhancement of the countryside.
  - *Moderate adverse effect:* The Proposals would alter the following to a moderate degree: change the landscape character type; result in a partial loss of key attributes; cause a noticeable deterioration to the contribution that the Site makes or has the potential to make to the local landscape character; fail to contribute to green infrastructure; conflict with guidelines for the landscape character area and with government policy towards the protection and enhancement of the countryside
  - *Slight adverse effect:* The Proposals would alter the following to a minor degree: change the landscape character type; result in a minor loss of key/characteristic elements or features; cause a minor deterioration to the contribution that the Site makes or has the potential to make to the local landscape character; fail to contribute to green infrastructure; conflict with guidelines for the landscape character area and with government policy towards the protection and enhancement of the countryside.
  - *Negligible effect:* The Proposals would alter the following to a very minor degree: change the landscape character type; result in a very minor change to key/characteristic elements or features; cause a very minor change to the contribution that the Site makes or has the potential to make to the local landscape character; maintain green infrastructure; avoid conflict with guidelines for the landscape character area and with government policy towards the protection and enhancement of the countryside.
  - *Neutral effect:* The Proposals would alter the following: make no change to the landscape character type; maintain existing landscape character and green infrastructure; avoid conflict with guidelines for the landscape character area and government policy towards protection and enhancement of the countryside; a neutral effect can also be the result of the removal of incongruous or intrusive elements and the introduction of new elements.
  - *Slight beneficial effect.* The Proposals would alter the following to a minor degree: reinforce the landscape character type; make a minor improvement to the contribution that the Site makes to the local existing landscape character; have potential to contribute to green infrastructure; support objectives for local guidelines for the landscape character area and government policy for the protection and enhancement of the countryside.
  - *Moderate beneficial effect:* The Proposals would alter the following to a moderate degree: reinforce the landscape character type; make a noticeable improvement to the contribution that the Site makes to the local landscape character through well-designed planting and mitigation measures; have potential to contribute to green



infrastructure; support objectives, for local guidelines for the landscape character area and government policy for the protection and enhancement of the countryside.

• *Substantial beneficial effect:* The Proposals would alter the following to a major degree: reinforce the landscape character type; mitigate substantially an existing severe adverse effect; make a major improvement in the contribution that the landscape makes to the local landscape character by restoring the integrity of a damaged landscape; have potential to contribute to green infrastructure; support objectives in local guidelines for the landscape character area and government policy for the protection and enhancement of the countryside.

#### 5 ASSESSMENT OF LIKELY VISUAL EFFECTS

#### 5.1 Identifying the Visual Effects

- 5.1.1 The *visual effects* are the potential changes to the Site, quantitative or qualitative, compared with a scenario without the Proposals. Effects can be adverse or beneficial, direct, indirect or cumulative. They can also be temporary or permanent, and should normally include the construction period.
- 5.1.2 The likely nature of the view of the development is assessed from identified receptors; for example the elevation of the view; a full, partial or glimpsed view; the proportion of the development that would be visible; the scale and proximity of the view of the development; whether the viewer is stationary, transient or sequential; changes in the existing skyline profile, creation of a new visual focus in the view, introduction of new man-made objects, changes in visual simplicity or complexity, alteration of visual scale, and changes to the degree of visual enclosure.
- 5.1.3 In addition the elevation and distance of the viewpoint in relation to the proposed development are considered. Distance is dependent on the nature of the setting. A very close view is generally defined as a view from within the immediate vicinity of the proposed development. Other views can be generally defined as:
  - Short range: up to 0.5km from the development
  - Medium range: between 0.5km and 1km from the development
  - Distant: beyond 1km and more from the development.

#### 5.2 Assessment of the Significance of Visual Effects

- 5.2.1 In light of the susceptibility/sensitivity of the receptor (the viewer), the effects can be assessed by considering the magnitude of change. The magnitude of the change in view considers: the value attached to the view (or visual amenity), taking into account the context of the viewing position; the size and scale of the development; the geographical extent of the area influenced; duration and reversibility.
- 5.2.2 The significance of the change for the visual amenity of the viewer is assessed, using the criteria set out below.
  - *Substantial adverse effect:* The Proposals would cause a major deterioration to existing views and visual amenity by doing one or more of the following: affect people who are particularly sensitive to changes in views and visual amenity to a major degree; affect people at recognised viewpoints or important viewpoints or from recognised scenic routes to a major degree or are visible from an extensive area.
  - *Moderate adverse effect:* The Proposals would cause a moderate deterioration to existing views and visual amenity by doing one or more of the following: affect people who are sensitive to changes in views and visual amenity to a moderate degree; affect people at recognised viewpoints or important viewpoints or from recognised scenic routes to a moderate degree or be visible from a moderately extensive area.
  - *Slight adverse effect:* The Proposals would cause a slight deterioration to existing views and visual amenity by doing one or more of the following: affect people who are sensitive to changes in views and visual amenity to a limited degree; affect people at recognised viewpoints or important viewpoints or from recognised scenic routes to a limited degree or be visible from a small area.
  - *Negligible effect:* Where changes may be visible with the Proposals but they are not readily discernible, often because they are distant views.
  - *Neutral effect:* Where there may be noticeable changes from the Proposals but no deterioration or improvement to existing views and the visual amenity.
  - No change: Where one might expect change from the Proposals but none is likely to be experienced.
  - *Slight beneficial effect:* The Proposals would cause a minor improvement to the existing visual amenity by doing one or more of the following: enhance views that are enjoyed by people who are sensitive to changes in views and visual amenity to a limited degree; enhance views from recognised viewpoints or important viewpoints or from recognised scenic routes to a limited degree.



- *Moderate beneficial effect:* The Proposals would cause a moderate improvement to the existing visual amenity by doing one or more of the following: enhance views that are enjoyed by people who are sensitive to changes in views and visual amenity to a moderate degree; enhance views from recognised viewpoints or important viewpoints or from recognised scenic routes to a moderate degree.
- *Major beneficial effect:* Where the Proposals would cause a major improvement to the existing visual amenity by doing one or more of the following: enhance views that are enjoyed by people who are sensitive to changes in views and visual amenity to a major degree; enhance views from recognised viewpoints or important viewpoints or from recognised scenic routes to a major degree.
- 5.2.3 As well as assessing the visual changes in Year 1 (immediately after completion, worst case), the change in view after is also assessed at either 10 or 15 years after planting, to represent an appropriate establishment period for the proposed scheme (materials may have weathered/blended and planting has established).
- 5.2.4 The assessment should include consideration of night-time changes where it maybe a specific consideration; although in many instances the significance of changes in night-time visual amenity is generally assessed as a separate night time assessment.

#### 6 CUMULATIVE EFFECTS

#### 6.1 Definitions and Scope

- 6.1.1 The Guidelines (7.3) define cumulative effects as follows:
  - 'Cumulative effects the additional changes caused by a proposed development in conjunction with other similar developments or as the combined effect of a set of developments, taken together' (Scottish National Heritage (SNH), 2012:4)
  - Cumulative landscape effects can impact on either the physical fabric or character of the landscape, or any special values attached to it (SNH, 2012:10)
  - Cumulative visual effects can be caused by combined visibility, which occurs where the observer is able to see two or more developments from one viewpoint and/or sequential effects which occur when the observer has to move to another viewpoint to see different developments' (SNH, 2012: 11).
- 6.1.2 The Guidelines (7.28) state that 'The emphasis must always be on the main project being assessed and how or whether it adds to or combines with the others being considered to create a significant cumulative effect'.

#### 6.2 Defining the Study Area

- 6.2.1 If the competent authority is unable to provide guidance professional judgement will be applied as to:
  - whether the assessment should include one of, or a combination of other examples of the same type of development as the main project, or other types of development including those that may arise as an indirect consequence of the main project under consideration.
  - whether the assessment should include schemes of a similar type to the scheme considered in the main project LVIA, already constructed, schemes with planning permission, schemes that are the subject of a valid planning application (yet to be determined) and schemes at a pre-planning stage (for example a site allocated in a local plan) as well as the main project.

#### 6.3 Assessment of Effects

- 6.3.1 The assessment of the cumulative landscape and visual effects will follow the same procedures as for the main project being assessed. If the content of the LVIAs for all the selected projects is inconsistent, it will be necessary to carry out further assessment to bring them all to a similar standard. If this is unrealistic, the Guidelines advise (7.18) that 'A more comprehensive overview of the cumulative effects must rest with the competent authority'.
- 6.3.2 If the competent authority is unable to provide guidance, a professional judgement will be made as to whether 'to focus primarily on the additional effects of the main project under consideration, or on the combined effects of all the past, present and future proposals together with the new project'.
- 6.3.3 In the assessment of the cumulative visual effects, views of the proposed developments will be assessed as to whether they are in combination and/or in succession as set out in Table 7.1 from the Guidelines.



6.3.4 If appropriate, consultation with the competent authority will be undertaken to clarify the need for mitigation provided by modification or design changes to the main project and the need for collaboration on neighbouring projects.

#### 7 THE METHODOLOGY

#### 7.1 The Methodology

7.1.1 This Methodology was originally written by Liz Lake FLI and Michelle Bolger CMLI, who has since co-authored both Technical Guidance Notes, TGN 06/19 and TGN 02/21 on behalf of the Landscape Institute (LI), and has been updated regularly by the practice over a number of years. Experience shows that the Methodology has to be regularly reviewed as it is tested against individual projects and continuing developments in this field of work. Liz Lake Associates reserve the right to amend the Methodology as the guidance becomes more established.

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Unit 1, The Exchange, 9 Station Road, Stansted, CM24 8BE

t +44 (0)1279 647044 e office@lizlake.com www.lizlake.com



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