

## Appendix 7.1 – Method for Landscape and Visual Impact Assessment

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### Introduction

The Landscape and Visual Impact Assessment [LVIA] considers the potential effects of the development on:

- ) Individual landscape features and elements;
- ) Landscape character and quality [condition]; and
- ) Visual amenity and the people who view the landscape.

### Distinction between Landscape and Visual Impacts

Landscape and visual effects are two distinct but related areas, which are assessed separately in accordance with the approach outlined below. Landscape and visual impacts do not necessarily coincide and can be beneficial or adverse. A distinction is drawn between landscape and visual impacts as follows:

- ) Landscape impacts relate to the effects of the proposal on the physical and other characteristics of the landscape and its resulting character and quality; and
- ) Visual impacts relate to the effects on views experienced by visual receptors [e.g. residents, footpath users, tourists] and on the visual amenity experienced by those people.

### Guidance

The LVIA of the proposed scheme was undertaken by qualified Landscape Architects with experience of similar types of development. The assessment was undertaken in accordance with best practice outlined in published guidance including:

- ) Guidelines for Landscape and Visual Impact Assessment, 3rd Edition [2013] Landscape Institute and the Institute for Environmental Management and Assessment;
- ) Landscape Character Assessment Guidance for England and Scotland [2002] The Countryside Agency and Scottish Natural Heritage; and
- ) Guidelines for Environmental Impact Assessment [2004] Institute for Environmental Management and Assessment.

### Method

The LVIA was undertaken following broad stages including:

- ) Baseline data collection via desk-top, consultation and fieldwork;
- ) Description of the baseline landscape character and visual amenity of the site and surrounding area which identify the relevant landscape and visual receptors [including representative viewpoints] and determine their sensitivity to change;
- ) Description of the magnitude of change in the landscape and visual amenity as a consequence of the proposal;

- ) Description of the potential landscape and visual impacts arising from the proposal; and
- ) Development of strategic mitigation proposals to assist in reducing adverse landscape and visual effects or provide compensation where unavoidable, and where possible provide enhancements and safeguard existing features for overall beneficial effects.

Baseline information regarding landscape features and sensitive visual receptors and the likely change in the landscape character and visual amenity of the site and its surroundings, was used to identify potential impacts and inform the final scheme as appropriate.

Strategic mitigation measures were developed in tandem with the proposals as far as practical to minimise adverse impacts as part of an iterative design process. Options for screening various components of the scheme were investigated and adopted as mitigation measures where appropriate.

Criteria thresholds for assessing the degree of change as a result of the scheme were established and the final layout of the scheme reviewed to ascertain the magnitude of change to the landscape and in views.

### ***Sensitivity of Receptors, Magnitude of Change and Significance of Effects***

The significance of effects on both the landscape and visual receptors within the study area were ascertained by cross-referencing the sensitivity of the baseline landscape or visual receptor and the magnitude of change as a result of the development.

The sensitivity of landscape and visual receptors is judged as high, medium or low. The magnitude of change is also judged to be negligible, low, medium or high. Significance of effects is expressed as either minor, moderate or substantial, which may be either beneficial or adverse, or neutral.

### ***Study Area***

For the purposes of this LVIA, a 2.5km study area from the centre of the site has been used as a boundary to assess the effects of the proposals. 2.5km has been considered in acknowledgement of the scale of the proposals, the nature of the local topography and the extent of urban development in the immediate environs. This is not to say that there will not be views of the site from outside this study area; however, it is considered that more distant views are likely to be limited and in any event the development would only be seen as a small element of a wider panorama.

### ***Visual Envelope and Zone of Theoretical Visibility***

The visual envelope of a scheme defines the broad area from within which it may be possible to see the whole or part of the proposed development and helps to establish the potential for sensitive visual receptors. The site is not considered to be visible outside this area or will be very difficult to perceive, except from occasional higher elevations. There will however still be pockets within the visual envelope from which there are no views of the study area, due to the local screening effects of vegetation and topography or other features such as buildings. Landscape features, which form visual barriers and restrict views towards parts of the study area, such as landform, settlements and woodland, can then be evaluated and significant barriers identified to refine the baseline visibility of the proposal.

### ***Representative Viewpoints***

Within the extent of the visual envelope, it would not be practical to illustrate the visual impact on every individual visual receptor affected by a scheme. Therefore, representative viewpoints will be used to assess the impacts on the different range of views towards the site. Viewpoints will be illustrated photographically using a 50mm lens digital SLR camera and the site location and significant features will be identified together with landmarks and features in the surrounding area. All photography carried out as part of this assessment is in accordance with Landscape Institute Technical Guidance Note 06-19.

For this assessment, photographs were taken during summer. Photographs were taken using a Canon digital SLR camera. All pictures were taken using a high-quality setting of >12-megapixel resolution.

Each of the viewpoints presented in the report is made up of several photographs which have been stitched together using photo-stitching software. Pictures are taken using a minimum of 50% overlap, and the software ensure that each photo has between 30-50% overlap with all other adjacent photograph. This process avoids the distortion that can occur at the edges of pictures. During the stitching process, none of the photographs were distorted in terms of scaling.

At the time the baseline photographs are taken co-ordinates of the viewpoints were recorded using a GPS. Height [AOD] at the viewpoints was also recorded. Photographs were taken at approximately 1.5m above ground level [i.e. eye level].

### ***Temporal Scope***

2020 has been taken as the baseline year for defining the existing landscape. The relevant impacts of the development will be assessed at the following times:

- ) During construction;
- ) Year 1: - one year after opening [Opening Year] to assess the impacts once the major construction is complete; and
- ) Year 15: - fifteen years after opening [Design Year] to allow for any mitigation planting and other landscape schemes to mature to give the intended effect.

### ***Desk Studies:***

The baseline landscape and visual assessment comprised a desktop study of data sources including the following and as detailed in References Section 10 of the report:

- ) Ordnance Survey [OS] at 1:25,000 scale;
- ) The Google Earth website;
- ) The Multi-Agency Geographical Information for the Countryside website;
- ) National Planning Policy Framework [2019]; Ministry of Housing, Communities and Local Government
- ) Essex County Council website; and

) Basildon Council website.

**Field Studies:**

The site was visited to obtain the following data:

- ) Photographs from proposed viewpoints:
- ) A corroboration of the findings of the desktop review; and
- ) To obtain additional information on landscape features, views and to gather any additional local information that may not be apparent from desk-based study.

All site surveys were undertaken during periods of clement weather from public highways, public rights of way [PRoW] and publicly accessible areas, including areas of public open space.

**Method for Landscape Assessment**

**Landscape Sensitivity**

A judgement regarding landscape sensitivity will be made based on the following general criteria:

**Table 1: Landscape Sensitivity Criteria**

Sensitivity	Criteria
<b>Low</b>	A landscape of few positive characteristics, poor condition or one that is not particularly valued for its scenic quality. The character of the landscape, existing land use, pattern and scale are tolerant of change and offer considerable opportunities for successful mitigation and landscape enhancement. The landscape may be a poor example of a locally abundant landscape type.
<b>Medium</b>	A landscape that exhibits some distinctive characteristics but may have been slightly degraded or one that is moderately valued despite its alteration. The character of the landscape, land use, pattern and scale offer some opportunities for successful mitigation and landscape enhancement. The landscape may be a poor example of a locally scarce landscape type or a good example of a locally abundant landscape type. Locally designated landscapes.
<b>High</b>	A landscape of particularly distinctive characteristics maintained in a good condition or one that is particularly valued for its scenic quality. The character of the landscape, existing land use, landscape features, pattern and scale are intolerant of change and offer few opportunities for successful mitigation or landscape enhancement. The landscape may be a good example of a locally scarce landscape type. Nationally designated landscapes.

**Magnitude of Landscape Change**

A judgement regarding the magnitude of change to landscape features and character will be made based on the following general criteria:

**Table 2: Magnitude of Landscape Change Criteria**

Magnitude of Change	Criteria
<b>High</b>	Total loss of or severe damage to key characteristics, features or elements of the landscape

Magnitude of Change	Criteria
	<p>Introduction of highly unnatural or unattractive features into the landscape which do not fit well with the existing character</p> <p>Major improvement or removal of several notable existing features or characteristics that significantly detract from the existing character</p> <p>Introduction of major new features or elements into the landscape which significantly improve the existing character</p>
<b>Medium</b>	<p>Partial loss of or damage to key characteristics, features or elements of the landscape</p> <p>Introduction of some unnatural features into the landscape but which may be accommodated without major detriment to the existing character.</p> <p>Moderate improvement or removal of some existing features or characteristics that currently detract from the existing character</p> <p>Introduction of some new features or elements into the landscape which moderately improve the existing character</p>
<b>Low</b>	<p>Minor loss of or alteration to one or more key characteristics, feature or elements of the landscape</p> <p>Introduction of minor unnatural features into the landscape which do not detract significantly from the existing character</p> <p>Minor improvement or removal of a small existing feature or characteristic that slightly detracts from the existing character</p> <p>Introduction of minor new features or elements into the landscape which slightly improve the existing character</p>
<b>Negligible</b>	<p>No notable loss or alteration of any key characteristics features or elements of the landscape</p> <p>No notable new features introduced into the landscape</p>

#### Method of Assessment – Visual Amenity

##### *Visual Sensitivity*

The sensitivity of visual receptors will depend on a number of factors including: the location and context of the viewpoint, the expectations and occupation of the visual receptor, the number of receptors being represented by the viewpoint and distance from the scheme. The extent of visual intrusion by any existing development may also affect the sensitivity of visual receptors in this vicinity. A judgement will be made regarding the sensitivity of baseline receptor views based on a combination of these factors. The sensitivity of the following visual receptors is given as a guide only and other factors may also affect their sensitivity:

**Table 3: Visual Sensitivity Criteria**

Sensitivity	Criteria
<b>Low</b>	<p>Users of industrial sites, offices and commercial properties.</p> <p>Users of A and B roads [except on key tourist trails].</p> <p>Users of active recreational and leisure facilities where the focus is on the activity and not the landscape.</p> <p>Community buildings in an urban location.</p>
<b>Medium</b>	<p>Residential properties with restricted views, distant and panoramic views, oblique views, limited/partially screened views towards the scheme or surrounded by urban development.</p> <p>Community buildings with a rural view.</p> <p>Users of Public Rights of Way and local 'C' class roads, unclassified lanes, tracks used by non-motorised users and users of outdoor recreational facilities and public open space with restricted views towards the scheme, distant views or with views of existing urban development.</p> <p>Users of local and regional tourist routes ['A' and 'B' class roads].</p>

Sensitivity	Criteria
<b>High</b>	Residential properties with predominantly open rural views from the curtilage, ground floor and upper floors directly towards the scheme. Users of Public Rights of Way and local 'C' class roads, unclassified lanes, tracks used by non-motorised users which traverse open countryside with predominantly open views towards the scheme. Users of recognised vistas and designated viewpoints. Users of outdoor recreational facilities and public open space with open views towards the scheme at close proximity.

### ***Magnitude of Visual Change***

A judgement regarding the magnitude of change to views will be made based on the following general criteria:

**Table 4: Magnitude of Visual Change Criteria**

Magnitude	Criteria
<b>High</b>	A significant deterioration or improvement in the existing view
<b>Medium</b>	A noticeable deterioration or improvement in the existing view
<b>Low</b>	A barely perceptible deterioration or improvement in the existing view
<b>Negligible</b>	No discernible deterioration or improvement in the existing view

### ***Evaluation of Landscape and Visual Impact Significance***

The evaluation of residual impact significance will take into account all agreed landscape and visual mitigation measures. The significance of impacts will be graded by relating the sensitivity of the baseline landscape or view to the magnitude of change as a result of the proposed development. The following matrix outlines approximately how the significance of adverse and beneficial impacts will be determined. The criteria thresholds are for approximate guidance only, the assessment of landscape and visual impact significance will rely upon clearly explained professional judgement.

**Table 5: Significance of Landscape/Visual Impacts**

Sensitivity of Landscape / View	Magnitude of Change in the Landscape / View			
	High	Medium	Low	Negligible
<b>High</b>	Substantial	Substantial/ Moderate	Moderate/Minor	Neutral
<b>Medium</b>	Substantial/ Moderate	Moderate	Minor	Neutral
<b>Low</b>	Moderate/ Minor	Minor	Minor	Neutral

