10 LANDSCAPE CHARACTER APPRAISAL

10.1 SUMMARY

Documents referred to include:


Landscape Character on different administrative levels includes are shown in Annex A.

10.2 NATIONAL LANDSCAPE CHARACTER AREA

Great Wakering and the Site lie in the East of England and within the National Landscape Area (LCA) 81 Greater Thames Estuary (see also Figure Ann 1). However, the LCA 111 northern Thames Basin is just north-west of the Site and is thus also summarised in the following.

10.2.1 LCA 81: GREATER THAMES ESTUARY

The LCA "lies between the North Sea and the rising ground of the adjacent North Kent Plain and Northern Thames Basin NCAs which provide a backdrop to the extensive flat open spaces of the estuary. Uninterrupted views out across the Thames to the opposite banks are possible from this higher ground, and industrial and historic military landmarks are highly visible in this predominantly low-lying marshy coastal landscape." (p.5)

And further: "As the Thames flows out to the sea the city gradually loses its hold and the estuary widens into a landscape of shallow creeks, drowned estuaries, mudflats and broad tracts of tidal salt marsh and re-claimed grazing marsh where the extensive open spaces are dominated by the sky and the pervasive presence of water." (p.7)

Land-use and landscape are described as follows: "Commercial arable production is the dominant type of agriculture here following the conversion of much of the grazing marsh to arable during the second half of the 20th century. Hedgegrows are absent from the large, rectilinear fields, with open pastures grazed with sheep and cattle patterned by a network of ancient and modern reed-fringed drainage ditches and dykes. Some areas of more mixed agriculture occur on higher ground. Trees are scarce within the open landscape, and are largely restricted to pockets of higher land surrounding isolated farms and churches and larger settlements along the marshland fringe." (p.8)

"Industry and its infrastructure - including waste disposal and mineral extraction sites, transport routes, ports and prominent power stations - and urban development, including housing and caravan sites, now occupy what are often highly visible sites within the low-lying marshes." (bid.)

Key characteristics (p.6):

- Predominantly flat, low-lying coastal landscape where extensive open spaces are dominated by the sky, and the pervasive presence of water and numerous coastal estuaries extend the maritime influence far inland.
- Eastern edge of the London Basin with its underlying geology of the extensive London Clay, containing important sites for geodiversity including fossils, deposits, and overland by productive loamy soils derived from inter-tidal alluvial muds.
- Geological contrast and variety along the coastline provided by Sheppey, a long, low island rising from a stretch of very flat marsh along the Swale Estuary in Kent with low, steep clay cliffs facing towards Essex, and Mersea Island in the Blackwater Estuary in Essex.
- Coastal line of major geomorphological interest for its coastal processes. Accretion of material carried by the sea from the north reranges intertidal coastal habitats, which are subject to coastal squeeze from rising sea levels.
- Open grazing pastures patterned by a network of ancient and modern reed-fringed drainage ditches and dykes, numerous creeks and low ditches or fens, with

<table>
<thead>
<tr>
<th>NATIONAL</th>
<th>COUNTY</th>
<th>DISTRICT</th>
</tr>
</thead>
<tbody>
<tr>
<td>East of England</td>
<td>G3 South Essex Coastal Towns</td>
<td></td>
</tr>
<tr>
<td>Greater Wakering</td>
<td>G3 South Essex Coastal Towns</td>
<td></td>
</tr>
<tr>
<td>Site</td>
<td>F2 Crouch &amp; Roach Farmland</td>
<td></td>
</tr>
<tr>
<td>North-west of Site</td>
<td>G3 South Essex Coastal Towns</td>
<td></td>
</tr>
</tbody>
</table>

Figure Ann 1: Great Wakering and Landscape Character Areas 81 and 111 in the wider context. Source: Natural England.
Land off Barrow Hall Road, Great Wakering, Essex
Landscape and Visual Impact Appraisal
February 2016

Tree cover is patchy.
- Traditional unimproved wet pasture grazed with sheep and cattle combined with extensive drained and ploughed arable land protected from flooding by sea walls, with some areas of more mixed agriculture on higher ground.
- Strong feelings of remoteness and wilderness persist on extensive salt marshes, mudflats and reclaimed farmland, which support internationally important plants, invertebrates and populations of breeding and overwintering birds, notably oystercatchers and Brent geese.
- Open mosaic habitats on brownfield sites support nationally important invertebrate assemblages and key populations of rare invertebrate species.
- Distinctive landmarks of coastal military heritage including Napoleonic military defences, forts and 20th-century pillboxes.
- Some of the least settled parts of the English coast with numerous small villages and hamlets on higher ground and marsh edges reflecting medieval patterns and the coastal economy.
- Highly urbanised areas within London and on marsh edges subject to chaotic activity of various major developments including ports, waste disposal, mining dredging, housing regeneration, mineral extraction and permanent power stations plus numerous other industry-related activities.
- Increasing development pressures around major settlements and especially towards London, with urban, industrial and recreational sites often highly visible within the low-lying marshes.
- Major historical and current transport link to inner London provided by the River Thames, with an extensive network of road and rail bridges spanning its reaches within the city.

10.2.2 LCA 111 NORTHERN THAMES BASIN

The Landscape character is described as "an area rich in geodiversity, archaeology and history and diverse landscapes", that has been characterised by urban expansion "since the 16th century when wealthy merchants who were conducting business in London built homes on its outskirts [...] This trend increased dramatically from the mid-19th century as infrastructure improved and people could travel to work in London from the surrounding areas in an hour or less. This has put increased pressure on the area in terms of extra housing developments, schools and other necessities for expanding populations, with a consequential reduction in tranquility." (p.3)

And further: "Although arable agriculture is a large industry in the area the soil quality ranges from good to poor quality. The London Clay provides a poor quality soil that becomes waterlogged in winter and dry and cracked in summer. Better quality soil is found in areas that contain alluvial deposits from the Thames and other rivers in the area as they formed and changed position over time. [...] There are a wide variety of semi-natural habitats in the area and these support many important species. However, the habitats have become fragmented over time and a landscape-scale approach is needed to connect them so that they can be sustained and provide functional benefits including, increasing pollinating insects, acting as flood defences and water storage areas, preventing soil erosion and helping to improve soil and water quality as well as maintaining the area's sense of place and history." (p.3).

Key characteristics (p.8):
- The landscape is varied with a wide plateau divided by river valleys. The prominent hills and ridges of the "Bagshot Hills" are notable to the north, west and extensive tracts of flat land are found in the south.
- Characteristic of the area is a layer of thick clay producing heavy, acidic soils, resulting in retention of considerable areas of ancient woodland.
- Areas covered by glacial sands and gravels have resulted in nutrient-poor, tree-draining soils which support remote lowland heathlands, although those are now small. Areas that have alluvial deposits present are well drained and fertile.
- The water bearing underlying Chalk beds are a main source of recharge for the principal London Basin chalk aquifer.
- A diverse landscape with a series of broad valleys containing the major rivers: Wey, Colne and Lea, and slightly steeper valleys of the rivers Stour, Colne and Roman. Numerous springs rise at the base of the Bagshot Beds and several reservoirs are dotted throughout the area.
- The pattern of woodlands is varied across the area and includes considerable ancient semi-natural woodland. Heritordshire is heavily wooded in some areas as are parts of Essex, while other areas within Essex are more open in character. Significant areas of wood pasture and pollarded veteran trees are also present.
- The field pattern is very varied across the basin reflecting historical activity. Informal patterns of 18th-century or earlier enclosure reflect medieval colonisation of the heaths. Regular ploughed enclosures dating from the Roman-British period are a subtle but nationally important feature on the flat land to the south-east of the area. In the Essex heathlands 18th- and 19th-century enclosures of heathlands and commons followed by extensive 20th-century field enlargement is dominant.
- Mixed farming, with arable land predominating in the Herfordshire plateaux, parts of the London Clay lowlands and Essex heathlands. Greatlands are characteristic of the river valleys throughout. Horticulture and market gardening are found on the light, sandy soils of former heaths in Essex, particularly around Colchester, along with orchards, meadow pasture and ley following numerous narrow rivers and streams.
- The diverse range of semi-natural habitats include ancient woodland, lowland heath and floodplain grazing marsh and provide important habitats for a wide range of species including great crested newt, water vole, dormouse and otter.
- Rich archaeology including sites related to Roman occupation, with the Roman capital of Colchester and City of St Albans (Verulamium) and links to London. Landscape parklands surrounding 16th- and 17th-century rural estates and country houses built for London merchants are

![Diagram](https://example.com/diagram.png)

**Figure 2. Essex County Character Areas at Great Wakering. Source: Land Use Consultants / Essex County Council.**
10.3 COUNTY LANDSCAPE CHARACTER TYPE

The Essex Landscape Character Assessment identifies Landscape Character Types:

- (A) Chalk Upland Landscapes
- (B) Glacial Till Plateau Landscapes
- (C) River Valley Landscapes
- (D) Wooded Hill and Ridge Landscapes
- (E) London Clay Landscapes
- (F) Coastal Landscapes
- (G) Urban Landscapes

The Site falls within area F2 Crouch & Roach Farmland, while Great Wakering can be located in G3 South Essex Coastal Towns. Both are described in the following (refer also to Figure A2).

10.3.1 F2 CROUCH & ROACH FARMLAND

In general, the coastal landscapes in Essex are described as "extensive areas of open, and largely undevolped low-lying land adjacent to the coast, much of which is of significant nature conservation value. The very low coastline is deeply indented by major river estuaries including the Stour, Colne, Blackwater, Crouch, and the Thames, and includes distinct island and peninsula features. Much of the coastal land behind the sea wall has been reclaimed to form wet grazing marshes and, where drained and improved, arable fields. Inland, the land rises and is dominated by arable farmland." (p.155)

Key characteristics are (bid):
- Long narrow Crouch and Roach river estuaries with bands of flat low-lying marshland. Rolling or gently undulating arable farmland between the estuaries. Regular fields of variable size and thick or intermittent hedgerow boundaries.
- Frequent long views across the farmland to the estuaries from higher ground.
- Strongly right angled pattern of lanes.
- Small villages, a scattering of hamlets, farmsteads, and newer suburban properties are concentrated along the lanes on higher ground.

The Landscape Sensitivity level for major urban extensions (>50a) is described as High.

10.3.2 G3 SOUTH ESSEX COASTAL TOWNS

In general, urban landscapes are described as "extensive areas that are dominated by urban land uses so that they can be recognised as a distinct landscape division. They are not completely built-up, and include distinctive, but fragmented, areas of open space that help break up and give character and structure to the surrounding built form, such as formal parks and gardens, allotments, playing fields and, areas of "encapsulated countryside". Urban fringe countryside of mixed land use around the settlement is also included." (p.206)

Key characteristics are (bid):
- Very large areas of 20th century residential and commercial development, usually surrounding a historic core, and on or enveloping former villages.
- Visual dominance of an urban skyline.
- Integral open spaces important for informal/formal recreation and/or wildlife, and which act as green lungs.
- Influence of water, with river valley or large coastal estuary locations, often with an associated gently undulating landscape.

Character area G3 in detail: "The South Essex Coastal Towns are an area of very mixed character, but unified by the overall dominance of urban development, with frequent views of an urban skyline. The major towns spread over gently undulating or flat land, but locally extend over prominent ridgelines and hillsides as well. A distinctive steep sided south facing escarpment between Hadleigh and Basildon retains significant areas of open greenland, as well as a patchwork of small woods, including woods on former ploughlands and small pastures. Contrasting flat coastal grazing marsh lies to the south. In some parts such as south of Hadleigh, and around Hoeckley, the urban form is softened by very large woodlands and the Roach Valley is largely undevolped. However, many residential and industrial edges with areas of adjacent open arable farmland are hard and abrupt with few hedgerows and woodlands remaining." (p.218)

Key characteristics are (bid):
- Large areas of dense urban development.
- Strongly rolling hills with steep south and west facing escarpments covered by open grassland or a mix of small woods, pastures and commons.

- Extensive flat coastal grazing marshes in the south adjacent to the Thames Estuary. Large blocks of woodland in the centre of the area.
- Narrow bands and broader areas of gently undulating arable farmland, with a remnant hedgerow pattern, separating some of the towns.
- Particularly complex network of major transportation routes.
- Y-plan routes visually dominate farmland in the A130 corridor.

The Landscape Sensitivity level for major urban extensions (>50a) is described as Moderate.

10.4 DISTRICT LANDSCAPE CHARACTER TYPE

Rochford District Council identifies in its 2006 publication nine historic Landscape areas. The Site and Great Wakering fall into Hill & Valley Band between Southend and Rochford Estuary Thames Gateway no.332.

Key characteristics are (p.118):
- This area is located between Southend-on-Sea and the River Thames. There is a strong urban fringe character around the boundary of Southend.
- The historic settlement pattern was dispersed, with church/hall complexes scattered farms and moats, with a single village at Great Wakering. To some extent this pattern survives, with much 20th century linear road development.
- Though the dominant field type is prairie, some areas of regular and irregular fields do survive.
- Historically this area was largely devoid of woodland and this is still the case.

10.5 LOCAL LANDSCAPE CHARACTER

To the best of our knowledge there is no local character assessment of Great Wakering available.
11 METHODOLOGY

11.1 STRUCTURE
The methodology has three key stages, which are described in more detail in subsequent sections:

BASELINE: Includes the gathering of documented information, scoping of the appraisal and agreement of the scope with the client, relevant consultants and the local planning authority.

DESIGN: Review of initial design / options and mitigation options.

APPRAISAL: Includes an appraisal of the landscape and visual effects of the full scheme, requiring site based work and the completion of a report and supporting graphics.

The appraisal method draws upon the established Countryside Agency methodology (Landscape Character Appraisal Guidance, 2002) and other recognised guidelines, in particular the Institute of Environmental Management and Appraisal and the Landscape Institute’s Guidelines for Landscape and Visual Impact Appraisal, Third edition 2013 (IUEMA).

The significance of an effect on a landscape or visual receptor is a function of the sensitivity of the receptor to change and the magnitude of change caused by the proposed development. This is assessed for both landscape receptors such as designated areas and landscape character areas, and for visual receptors (people) at viewpoints.

11.2 BASELINE
The baseline study establishes the relevant landscape planning policy context, the scope of the appraisal and the key receptors. It includes the following key activities:

A desk study of relevant current national and local planning policy for the site and surrounding area.

A desk study of nationally and locally designated landscapes for the site and surrounding area.

A desk study of existing landscape character appraisals for the site and surrounding area, at national, regional and local level.

Where appropriate or necessary, a Zone of Theoretical Visibility (ZTV) study to assist in identifying potential viewpoints and indicate the potential visibility of the proposed development, and therefore scope of receptors likely to be affected.

11.3 DESIGN
The Landscape Architect will play a leading role in the site design. The design and appraised stages are necessarily iterative, with stages overlapping in parts.

11.4 APPRAISAL
The appraised effects include further work covering the following key activities:

An appraisal of the magnitude and sensitivity of effects upon landscape character, landscape designations and the existing visual environment arising from the proposed development during construction and operational stages. If mitigation planting is proposed, which will help to integrate the development into the landscape over time, effects during operation are assessed at years 1 and 15. If such planting is not proposed effects are only assessed at year 1.

Where appropriate or necessary, the production of photomontages from a selection of the viewpoints showing the anticipated view following construction of the proposed development.

11.5 PREPARATION AND USE OF ZTVS
ZTVs are used to inform the field study appraisal work, providing additional detail and accuracy to observations made on site. ZTVs show the maximum theoretical visibility taking into account topography and principal woodlands and settlements, which are included in the model at the heights indicated. The model does not take into account every localised feature and thus gives an exaggerated impression of the extent of visibility. As a result, there may be areas which, although shown as zones of visibility on the ZTV, are screened or filtered by buildings, banks, walls, and/or vegetation, which would block views of the proposed development.

<table>
<thead>
<tr>
<th>TABLE 2: Sensitivity of Landscape Receptors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SENSITIVITY</strong></td>
</tr>
<tr>
<td>High</td>
</tr>
<tr>
<td>Medium</td>
</tr>
<tr>
<td>Low</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

**DEFINITION (EXAMPLES)**

- Particularly distinctive, positive and coherent landscape character with high aesthetic appeal
- Insect landscape structure and individual elements in good condition, absence of intrusive or detracting elements
- Overall low capacity to tolerate change of a specific type and scale without significant disruption to individual valued features, or the combination of landscape elements, that contribute to distinctive character.
- Nationally designated landscape such as National Park, AONB, (Heritage Coast, which though nationally designated, are protected only via local plan policy would have High-Medium value and sensitivity).
- Locally designated landscape (e.g. AGV), where the reasons for designation are well represented would have High-Medium value and sensitivity.
- Overall low capacity to tolerate change without significant disruption to individual valued features, or the particular qualities of the landscape that contribute to the reasons for designation.
- A generally positive character but with some degradation or erosion of features resulting in areas of mixed character and condition.
- Presence of some intrusive elements that detract from the distinctive character of the landscape.
- Moderate capacity to accommodate some change of a particular type and scale without loss of essential character and local distinctiveness.
- Locally designated landscape (e.g. AGV), where character and quality are partially degraded (Medium).
- Moderate capacity to accommodate some change of a particular type and scale without significant disruption to individual valued features, or the particular qualities of the landscape that contribute to the reasons for designation.
- Lacks a coherent or distinctive positive character with some degradation or erosion of features resulting in areas of mixed character and poor condition.
- Presence of intrusive elements that detract from the distinctive character of the landscape.
- A landscape type or area which can potentially tolerate substantial change of a particular type and scale without unacceptable adverse effects on its character.
- A landscape which is not designated, not of recognised importance, and is of limited value as a local landscape resource.
- A landscape type or area which can potentially tolerate substantial change of a particular type and scale without unacceptable adverse effects on its value as a landscape resource.
11.6 APPRAISAL OF LANDSCAPE SENSITIVITY AND MAGNITUDE

LANDSCAPE SENSITIVITY

Sensitivity of landscape character areas or types is influenced by their characteristics and is frequently considered within documented landscape character appraisals and capacity studies. The sensitivity of designated landscapes is assessed based on the relevant value as indicated by their designation. A description of how sensitivity is assessed for landscape character areas or types and for designated landscapes is included below (Table A1).

MAGNITUDE OF EFFECT ON LANDSCAPE RESOURCES

Magnitude of effect identifies the degree of change to the distinctive elements, features and characteristics of the landscape arising from the development and how this affects its distinctive character and qualities and its sense of place. It is rated as shown in the table below (Table A2).

SENSITIVITY OF VISUAL RECEPTORS

The sensitivity of visual receptors is primarily dependent upon:
- The location i.e. proximity and context of the viewpoint;
- The expectations and occupation or activity of the receptor, including awareness of their surroundings and duration of viewing opportunity, whether prolonged or intermittent;
- The importance of the view, which may be determined with respect to its popularity or number of people affected, its appearance in guidebooks, on tourist maps and in the facilities provided for its enjoyment and references to it in literature or art.

A wide variety of visual receptors can reasonably be anticipated to be affected by a proposed solar farm development. The range of visual receptors will include pedestrians, cyclists and those otherwise engaged in the pursuit of leisure activities within the visual envelope of the site, local residents, motorists, those working outdoors and other workers. All categories of receptors can potentially be affected to a greater or lesser degree by a solar farm development. The four main visual receptor groups are considered in more detail below under the headings of residents, workers, the travelling public and visitors.

11.7 APPRAISAL OF VISUAL SENSITIVITY AND MAGNITUDE

Significance of visual effect is assessed for the selected representative viewpoints. General overall effects on public rights of way within the locality are also described. An appraisal is made to identify whether any dwellings would be unacceptable harmed by views of the proposed development. This is described in more detail below.

Representative viewpoints for the appraisal of visual effects have been identified in the baseline appraisal. These are at publicly accessible locations such as roads and public rights of way and public open space. The sensitivity of receptor magnitude of change to the view, and the significance of the impact on the receptor are assessed for each representative viewpoint.

Private dwellings Recent public inquiry decisions have determined that effects on private residences are not a material consideration unless they will be affected by views of the development to the extent that views of the development would be 'overshadowed'. The basis for such decision is clearly described in the inspector's decision for Shooters Bottom Farm wind farm (APP/G103/05/1118137), as follows:

"The planning system does not exist to protect the private interests of one person against the activities of another. Rather, it functions to regulate the use and development of land in the public interest. In the case of living conditions, public and private interest may coincide where the impact of a specific development is such as to significantly affect the attractiveness of a particular dwelling as a place to live, but only if this was in a way that would be perceived by the community at large rather than, for example, in consequence of the position of a particular existing householder towards the generic type of development prosed..."

For this reason, sensitivity, magnitude and significance are not assessed in relation to views from residential properties, but an appraisal is made to identify whether any dwellings would be unacceptable harmed by views of the proposed development. The appraisal is limited to dwellings where, in theory, due to their close proximity, large proportions of their views could potentially be occupied by a proposed development.

Public Rights of Way Effects on the visual amenity of Public Rights of Way (PROW) in the vicinity of the site are assessed.

Land off Barrow Hall Road, Great Wakering, Essex Landscape and Visual Impact Appraisal February 2016

Medium sensitivity, unless these are particularly scenic or slow routes, in which case the sensitivity may be assessed as Medium. The users of local roads will have a Medium sensitivity.

Cyclists and 'footpath' users - These groups are addressed under the heading of visitors as they are generally less concerned with the object of reaching their destination than with the enjoyment of being outside and enjoying the landscape and available views.

Visitors

This category includes several visual receptor groups, each with different objectives and levels of sensitivity to change in the fabric or character of the landscape and views arising from the proposed development. This group includes those who are primarily concerned with the enjoyment of the outdoor environment and so those who may pursue recreational pursuits and is anticipated to include the following (arranged in decreasing sensitivity):

Motorists - For major trunk routes and motorways, the sensitivity of visitors will be Low, as they will be travelling at speed and will be primarily focussed on achieving their destination. Users of other A-roads will have a Low to

Table A3. Magnitude of Effect on Landscape Resources

<table>
<thead>
<tr>
<th>SENSITIVITY</th>
<th>RECEPTOR TYPE</th>
<th>DESCRIPTION (EXAMPLES)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>Landscape character area/type</td>
<td>Total or major alteration to key elements, features or characteristics of the local or wider landscape resource, such that post development the baseline situation will be fundamentally changed.</td>
</tr>
<tr>
<td></td>
<td>Designed landscape</td>
<td>Total or major alteration to key elements, features or characteristics of the designated landscape, such that post development the reasons for designation will be fundamentally affected.</td>
</tr>
<tr>
<td>Medium</td>
<td>Landscape character area/type</td>
<td>Partial alteration to key elements, features or characteristics of the local or wider landscape resource, such that post development the baseline situation will be noticeably changed.</td>
</tr>
<tr>
<td></td>
<td>Designed landscape</td>
<td>Partial alteration to key elements, features or characteristics of the landscape designation, such that post development the reasons for designation will be noticeably affected.</td>
</tr>
<tr>
<td>Low</td>
<td>Landscape character area/type</td>
<td>Minor alteration to key elements, features or characteristics of the local or wider landscape resource, such that post development the baseline situation will be largely unchanged, despite discernible differences.</td>
</tr>
<tr>
<td></td>
<td>Designed landscape</td>
<td>Minor alteration to key elements, features or characteristics of the landscape designation, such that post development the reasons for designation will be largely unaffected.</td>
</tr>
<tr>
<td>Negligible</td>
<td>Landscape character area/type</td>
<td>Very minor alteration to key elements, features or characteristics of the local or wider landscape resource, such that post development the baseline situation will be fundamentally unaffected with barely perceptible differences.</td>
</tr>
<tr>
<td></td>
<td>Designed landscape</td>
<td>Very minor alteration to key elements, features or characteristics of the landscape designation, such that post development the reasons for designation will be fundamentally unaffected with barely perceptible differences.</td>
</tr>
</tbody>
</table>
11.8 MAGNITUDE OF EFFECT ON VIEWS FROM REPRESENTATIVE VIEWPOINTS

Magnitude of effect identifies the degree of change to the character and quality of views experienced by the visual receptor. This will be influenced by:

- The distance of the viewpoint from the proposed development and the scale of change in the view with respect to the loss or addition of features in the view and changes in composition, including the proportion of the view occupied by the proposed development;
- The degree of contrast or integration of any new features or changes in the landscape with the existing or remaining landscape elements and characteristics in terms of form, scale and mass, line, height, colour and texture.

Magnitude of effect is rated as shown in Table 4.4 below.

11.9 APPRAISAL OF SIGNIFICANCE OF LANDSCAPE AND VISUAL EFFECTS

Significance indicates the importance of the effect and whether it should be a material consideration in the decision-making process, taking into account the sensitivity of the receptor and the magnitude of the effect. It is rated on the following scale:

MAJOR: Indicates an effect that is very important in the planning decision-making process.
MAJOR/MODERATE: Indicates an effect that is, in itself, material in the planning decision-making process.
MODERATE: Indicates a noticeable effect that is not, in itself, material in the planning decision-making process.
LIGHT: Indicates an effect that is trivial in the planning decision-making process.
MINIMAL: Indicates an effect that is akin to no change and is thus not relevant to the planning decision-making process.

Significant effects (in terms of whether it is a material consideration in the decision-making process) are those that are Major-Moderate or Major.

Where intermediate ratings are given, e.g. "Moderate-Light", this indicates an effect that is both less than Moderate and more than Light, rather than one which varies across the range. In such cases, the higher rating will always be given first; this does not mean that the impact is closer to that higher rating, but is done to facilitate the identification of the more significant effects within tables.

The process of forming a judgement on the significance of effect is based upon the appraisal of magnitude of effects and sensitivity of the receptor to come to a professional judgement of how important this effect is in terms of making a decision about whether planning permission should be granted. This judgement is illustrated by the diagram below.

11.10 NATURE OF EFFECT

The Nature of effect (Definition) is categorised as indicated below:

ADVERSE: Effect that would result in damage to the condition, integrity or key characteristics of the landscape or visual resource.
NEUTRAL: Effect that would maintain, or balance, the existing level of condition, integrity or key characteristics of the landscape or visual resource. Whilst the nature of the change may be significant, the proposal does not compromise the inherent qualities of the resource and can incorporate a combination of positive and negative effects.
BENEFICIAL: Effect that would result in improvement to the condition, integrity or key characteristics of the landscape or visual resource.

The decision regarding the significance of effect and the decision regarding whether an effect is beneficial or adverse (valence) are entirely separate. For example, a rating of Substantial, Beneficial would indicate an effect that was of great significance and of balance positive, but not necessarily that the proposals would be extremely beneficial.

11.11 VISUALLY VERIFIED IMAGES (VVI)

Programs used:
Autodesk 3ds Max 2014, Adobe Photoshop CS6

Data used in the process:
CAD survey drawing prepared by Sterling Surveys Ltd.
Site Images taken by John Griffin.

The survey drawing and the site topographical survey are first imported into 3D Studio Max. A virtual camera is created at each camera location, to the specifications of each photograph from the photographs, and its target point is located in the general direction of the photograph at the same elevation as the camera. At each surveyed point, a renderable target object is placed and orientated to always have the respective camera's viewpoint. For each image, the camera will be set to the current viewpoint, with a low resolution version of the original image set as the background image. The camera target is then moved laterally, being careful not to change the elevation, until a rough match is achieved on screen. A render is then made to the same pixel dimensions as the original obtained from the photographer. In Adobe Photoshop the render is merged into the original image, aligning the document bounds. The result is a draft match. The camera target is then moved laterally to accommodate the discrepancy, and the process is repeated. This process is repeated until the rendered targets align to within a tolerance of four pixels which is the most accurate match that the software can produce.

Once a camera has been matched to the picture and achieved satisfactory and accurate output, the target and camera are locked and frozen to guarantee not moving them accidentally at a later date. The proposal is modelled accurately in 3D as a massing model and positioned in relation to the topographical survey data and the site plan for the scheme. It can then be accurately located in the camera matching file.

An image for each camera viewpoint is rendered with the proposed buildings as solid mass with real surfaces at the same resolution as the original image as before. This ensures that the rendered image will always align correctly with the photograph. The resulting renders are placed in their respective photographs. To produce a shaded solid mass render, the process is repeated with a different material on the buildings only in this way we can easily produce either wire-frame, solid massing, shaded massing, or fully rendered images from the same camera locations.

Table 4.4: Magnitude of Effect on Views

<table>
<thead>
<tr>
<th>Sensitivity</th>
<th>Definition (Examples)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>Total or major alteration to key elements, features or characteristics of the view, such that post development the baseline situation will be fundamentally changed.</td>
</tr>
<tr>
<td>Medium</td>
<td>Partial alteration to key elements, features or characteristics of the view, such that post development the baseline situation will be noticeably changed.</td>
</tr>
<tr>
<td>Low</td>
<td>Minor alteration to key elements, features or characteristics of the view, such that post development the baseline situation will be largely unchanged despite discernible differences.</td>
</tr>
<tr>
<td>Negligible</td>
<td>Very minor alteration to key elements, features or characteristics of the view, such that post development the baseline situation will be fundamentally unchanged with barely perceptible differences.</td>
</tr>
</tbody>
</table>