

PLANNING APPLICATION FOR PROPOSED SOLAR DEVELOPMENT

**BROOKBARN SOLAR FARM, LAND AT
BROOKBARN FARM, WICK, LITTLEHAMPTON,
WEST SUSSEX, BN17 7PE**

APPRAISAL OF LANDSCAPE AND VISUAL EFFECTS

ON BEHALF OF ANESCO LIMITED

**TOWN & COUNTRY PLANNING ACT 1990 (AS AMENDED)
PLANNING AND COMPULSORY PURCHASE ACT 2004**

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1. INTRODUCTION

- 1.1 This Appraisal of Landscape and Visual Effects (ALVE) has been prepared by Pegasus Group, on behalf of Anesco Limited.
- 1.2 The ALVE has been prepared by a Chartered Member of the Landscape Institute and considers the potential effects of the proposed development upon:
- Landscape elements and features such as vegetation, topography and water bodies;
 - Landscape character; and
 - Visual amenity.
- 1.3 The appraisal was undertaken in November 2014 for the construction of a 3MW (approximately 5.2 hectare) PV solar farm, associated landscaping, transformer housing, security measures and associated works. The location of the Proposed Development is as shown on the Site Location Plan at **Appendix 1**.
- 1.4 The main objectives of the LVIA are as follows:
- To identify, evaluate and describe the current landscape character of the site and its surroundings and also any notable individual landscape elements and features within the site.
 - To determine the sensitivity of the landscape to the type of development proposed.
 - To identify potential visual receptors (i.e. people who would be able to see the development) and evaluate their sensitivity to the type of changes proposed.
 - To identify and describe any effects of the development in so far as they affect the landscape and/or views of it and to evaluate the magnitude of change due to these effects.

2. METHODOLOGY

2.1 The LA has been undertaken with regard to the following best practice:

- Guidelines for Landscape and Visual Impact Assessment (3rd edition) – Landscape Institute/IEEMA (2013);
- Photography and photomontage in landscape and visual assessment (2011) – Landscape Institute Advice Note 01/11/13.

2.2 In accordance with the published guidance, landscape (elements and character) and visual impacts are assessed separately. The detailed methodology is outlined in **Appendix 2**.

2.3 It should be noted that the changes arising from the proposed development are reversible once the proposed solar farm is dismantled and the site restored at the end of its life. However, the duration of the solar farm (effectively a generation) means that the changes to landscape and visual amenity are considered as permanent for the purposes of this assessment.

3. BASELINE CONDITIONS

- 3.1 The Application Site is approximately 2.7km south of the centre of Arundel, and 3km northwest of the centre of Littlehampton, northwest of Wick in West Sussex. The Application Site is centred on OS grid reference TQ 01850, 04180. The site lies within the administrative boundary of Arun District Council (ADC).

Description of the Application Site

- 3.2 The site itself consists of grassland located to the north of the West Coastway Line railway between Angmering Station and Ford, and to the south Black Ditch, that flows into the River Arun approximately 550m to the west of the Application Site.
- 3.3 The field boundaries (within which the proposed development is located) have a variety of vegetation. To the north the vegetation along the southern edge of the Black Ditch includes scattered trees and riverine vegetation. To the south, adjacent to the railway line there is hedgerow and scrub, with more trees towards the western end. Similarly along the short western end boundary. The eastern Application Site boundary is open in places, intermittent hedgerow with few trees. The central section of the eastern boundary is adjacent to access tracks associated with the neighbouring nursery.
- 3.4 Trees and hedgerows within the application site have been assessed in the ecological assessment that accompanies the planning application as being of low ecological value, being of some value to nesting birds and bats.
- 3.5 The site is currently grassland used for grazing and animal feed production. The ecological assessment that accompanies the planning application has assessed them as being of negligible or limited value.
- 3.6 There are no PRoW within the Application Site
- 3.7 There are no watercourses or waterbodies within the Application site.
- 3.8 The Application Site is located within the 'Setting of Arundel' area and the settlement gap between Arundel and Littlehampton. (See Chapter 5 – Planning Policy Context).

Description of the Surrounding Area

Landscape Designations

- 3.9 As shown on the Landscape Designations Plan at **Appendix 3** the South Downs National Park southern boundary comes to within 2km of the application site. The National Park southern boundary runs east to west and runs through Arundel. The Arundel Castle is located within the National Park.

Settlements

- 3.10 Approximate distances to the nearest settlement edges from the Application Site are:
- Wick (100m southeast and 160m east (Thornlea Park));
 - Lyminster (550m northeast);
 - Littlehampton (650m south);
 - Ford (1.2km west);
 - Tortington (1.6km northwest);
 - Poling (2.5km east northeast);
 - Climping (1.9km southwest); and
 - Arundel (2.1km north).
- 3.11 As well as Brookbarn Farm adjacent to the Application Site, there are also individual farms and residential properties within the vicinity of the Application Site. These include properties at Court Wick Park (330m south of the nearest part of the Application Site), The Willows (The Marina (1.3km west), Manor Farm (1.4km northwest), Brookhurst Farm (1.5km northeast) and Priory Farm (2km northwest).
- 3.12 Within 200m to 700m to the east of the Application Site (between Wick and Lyminster) there are two caravan parks, numerous glass houses associated with plant nurseries (Torri Nursery, Old Mead Nursery, Meadview Nursery and Sandfield Nursery). There is also a recycling centre and Holiday Centre.

Public Highways

- 3.13 Old Mead Road links the Application Site with the A284 Lyminster Road (550m to the east of the Application Site. The A284 connects the A27 dual carriageway (1.8km to the north of the site) and the A259 (approx. 590m to the south-east).

- 3.14 A network of mainly minor roads links the various settlements and properties in the area surrounding the site. The Ford road (C17) links Arundel with Ford, running north to south, 1.3km to the west of the Application Site.

Railways

- 3.15 The West Coastway Line railway runs to the south, and adjacent to the Application Site. This connects (at Arundel Junction immediately to the west of the Application Site) with the Arun Valley railway line that runs from Bognor Regis, through Arundel towards London. The railway lines are generally on slightly higher ground (embankment) than the surrounding fields.

Topography

- 3.16 The site itself slopes gently from south to north, from approx. 5m Above Ordnance Datum (AOD) to approx. 4m AOD.
- 3.17 The topography of the surrounding area is more variable.
- 3.18 To the north, the landform remains low lying until reaching Arundel. The South Downs rise (just north of Arundel) to the northwest, north and northeast, forming a long ridge of hills generally reaching heights of 200 to 250m AOD.
- 3.19 To the west and east, the landform is gently undulating but remains low lying at between 4m to 10m AOD.
- 3.20 To the south the land gently slopes down to the coast (approximately 3km).

Trees, Woodlands and Hedgerows

- 3.21 There are no notable blocks of woodland within the vicinity of the site. There are scattered trees at Arundel railway Junction and small groups, and lines of trees along water courses for instance, and field boundaries. The nearest small blocks of trees are at Brookfield (to the north of Lyminster) and a small woodland block named Decoy to the south of Tortington. Other small groups or blocks are generally not named on 1:25,000 scale Ordnance Survey mapping.
- 3.22 Fields are of variable sizes and shapes, and generally irregular in shape. Agriculture is a mixture of pastoral and arable. Field boundaries are generally marked by hedgerows, often with large numbers of hedgerow trees, or by narrow treebelts.

Public Rights of Way (PRoWs) and public access

- 3.23 Footpath 206 runs along the western bank of the River Arun to within 600m of the western edge of the Application Site.
- 3.24 Footpath 2165 is a short stretch of PRoW that runs along the south west edge of Lyminster 480m from the north east corner of the Application Site.
- 3.25 Footpath 2207 runs north from Lyminster (720m north east) towards Arundel railway station.
- 3.26 Public bridleway 2163 runs east from Lyminster towards Poling.
- 3.27 PRoW bridleway 415 forms part of a denser network of PRoW within the National Park to the west and north of Arundel, north of the A27.
- 3.28 The Monarch's Way Long Distance Path is over 600km and runs within the South Downs National Park through Arundel along London Road, adjacent to the Cathedral and Arundel Castle.
- 3.29 There are various other PRoWs in the wider area, but very few of these would have discernible views of the site or of the proposed development.

Watercourses and Waterbodies

- 3.30 The River Arun, together with a number of waterbodies associated with the river, is located approximately 600m to the west of the western section of the site at its closest point. Black Ditch and numerous other small water courses between the Application Site and Arundel generally flow west towards the River Arun.
- 3.31 The landscape surrounding the Application Site is a mixture of low lying farmland with numerous small to medium sized settlements and isolated properties to the north and west, with more urbanised landscape along the coast to the south and east. Major roads such as the A27 run to the north of the site (approximately 1.8km) linking Arundel to Chichester and Portsmouth to the west, and Worthing and Brighton to the east.
- 3.32 Fields are typically small to medium sized and irregular in shape, used for grazing, fodder crop production or arable production. Woodland cover is more extensive to the north on the slopes of the South Downs.

- 3.33 Longer distance views are generally rare due to the presence of high hedges and hedgerow trees alongside roads and footpaths in the area.

4. DESCRIPTION OF THE PROPOSALS

- 4.1 The Proposed Development is a solar farm comprising the following key components:

Strings of Photovoltaic Solar Panels

- 4.2 The layout of the Proposed Development is shown at **Appendix 4**. Each string of panels would be mounted on a rack supported by pile driven foundations. Between each string of panels there would be a distance of approx. 4.5m to avoid any shadowing effect from one panel to another. The panels would be mounted at around 0.6m from the ground at the lowest edge, rising to a maximum of 2.4m at the highest point (the rearmost edge). The panels would be tilted at around 20 degrees from the horizontal, orientated to face due south towards the sun, and are fixed in that orientation.

Inverters

- 4.3 The solar farm would use small string inverters, mounted on the back/underside of the solar panels, thereby removing the need for visible inverter buildings.

Metering Circuit Breaker, Switchgear and Connection to the National Grid

- 4.4 There would be two low voltage switch/transformers. The transformers (2.3m high, located within 3.5m by 3.5m by 2.0m high fences with switchgear alongside (1.1m by 2.6m by 1.9m)
- 4.5 One metering circuit breaker unit within GRP enclosure, with dimensions of approximately 2.5m by 2.8m by 2.4m tall.
- 4.6 Connection to the National Grid would be via underground cables to an existing overhead 11kV line adjacent to the eastern Application Site boundary.

Underground Cabling

- 4.7 The strings of solar panels and substations would be connected together by underground cabling, with no new above ground cabling required for the Proposed Development.

Fencing and Security

- 4.8 A 2m high deer fence, mounted on timber poles, would be erected around the perimeter of the site to prevent unauthorised access and reduce the risk of theft or vandalism of the equipment.

- 4.9 A security beam (infra-red) system would be mounted on 1.2m high poles inside the deer fence close to the array.

Access Tracks

- 4.10 Access tracks would connect with Old Mead Lane. New stone tracks would be constructed on top of a geo-textile membrane.

Landscaping and Planting

- 4.11 The areas beneath the solar panels would remain as grass and would be managed by low intensity sheep grazing or a cutting regime to encourage species diversity. Other areas would be seeded with a locally-appropriate wildflower mix.
- 4.12 Gaps in existing hedgerows would be infilled to provide further visual screening where necessary, notably along the northern boundary (Black Ditch) and the eastern boundary. Hedgerow trees would also be planted.

5. PLANNING POLICY CONTEXT

National Planning Policy

- 5.1 The National Planning Policy Framework published on the 27th March 2012 sets out Government planning policies for England and how these are expected to be applied.
- 5.2 THE NPPF sets out 12 core planning principles, the most relevant of which to these proposals is 'Conserving and enhancing the natural environment'. These core aims are in landscape and visual terms designed to guide and influence local authorities developing their local plans demonstrating Government commitment to ensure that the planning system does everything it can to support sustainable economic growth.
- 5.3 The environmental role of the NPPF states that sustainable development should be achieved by:
- 'contributing to protecting and enhancing our natural, built and historic environment; and, as part of this, helping to improve biodiversity, use of natural resources prudently, minimise waste and pollution, and mitigate and adapt to climate change including moving to a low carbon economy'.
- 5.4 The use of the criteria-based policies based on landscape character is considered a suitable approach to ensure the protection of locally valued landscapes outside of nationally designated landscapes.

National Planning Policy Guidance (March 2014)

- 5.5 The Government's Planning Practice Guidance website, containing a comprehensive range of guidance of the planning system, went live on 6th March 2014. The guidance should be read alongside the NPPF and is a material consideration in the determination of planning applications.
- 5.6 Renewable and low carbon energy is one of the chapters. It is noted the guidance in this regard largely repeats the now cancelled Planning Practice Guidance document published by DCLG in July 2013. Further details are contained within the Planning Statement that accompanies this application.

Local Planning Policy

- 5.7 The accompanying Planning Statement states in full the national and local planning policies relevant to the proposals. Please refer to the Planning Statement for planning policies details. Policies listed below are deemed most relevant from a landscape perspective to this document.
- 5.8 The current Arun District Local Plan is the Local Plan (2003). This is due to be superseded by the Arun Local Plan 2011-2031 which is currently at the Publication Stage of consultation. The Arun District Local Plan (2003) therefore remains as material consideration for the determination of planning applications.

Policy Area 10 Strategic Gaps.

- 5.9 Policy Area 10 identifies areas to be maintained as Strategic Gaps, these include:
- Worthing and Ferring
 - East Preston and Ferring
 - Littlehampton and Middleton-on-Sea
 - Pagham and Selsey
 - Bognor Regis and Chichester
 - Arundel and Littlehampton
- 5.10 The reason for Policy Area 10 is the retention of separate settlement identities, amenity of settlements and protecting undeveloped coastline development within these areas. Development will only be permitted if:
- "It is demonstrated to be necessary to meet the requirements of, or is consistent with, other policies of the Development Plan; and
 - It would not compromise, either individually or cumulatively, the objectives and fundamental integrity of the strategic gap; and
 - Attention is given to the long term enhancement of the landscape, amenity and conservation value within the gap and, where possible, to the improvement of public access."

Policy Area 12 Agricultural Land Quality

- 5.11 In order to protect the natural resource of high grade agricultural land Policy Area 12 states that "The use of best and most versatile agricultural land (Grades 1, 2 and 3a) for any form of development not associated with agriculture or forestry will not be permitted unless need for the development outweighs the need to protect such land in the long term. Where development is permitted on the best and most versatile land it should, as far as possible, use the lowest grade of land suitable for that development."

Policy Area 3 The setting of Arundel. (Policy LAN DM2 within emerging Arun Local Plan 2011-2031)

- 5.12 This policy says that no development will be permitted, particularly within the area shown on the Proposals Map, which would adversely affect views of Arundel or its special setting."
- 5.13 The policy states that long distance views from Arundel Castle and Arundel Cathedral must not be adversely affected by proposed development. The policy goes on to add that development should not "adversely affect the rural views outwards from the town and in particular from the following locations:
- London Road, in the vicinity of 9 and 11 London Road (NW views)
 - London Road, in the vicinity of the Roman Catholic cemetery (southerly views);
 - the northern ends of Mount Pleasant, King Street and Parsons Hill and at their junction with London Road (southerly views);
 - London Road, in the vicinity of Tower House (easterly views);
 - the northern end of High Street (southerly views);
 - Bakers Arms Hill and its junction with Maltravers Street (southerly views)
 - Kings Arms Hill and its junction with Maltravers Street (southerly views);
 - Mount Pleasant, in the vicinity of the Old Poor House (southerly views);
 - the Arundel river bridge, in Queen Street (easterly views).
- 5.14 Policy LAN DM2 within the emerging local plan (2011 – 2031) Developments shall only be permitted where they will not have a demonstrable visual impact on either the landscape character of Arun or the setting of and views into and out of the South Downs National Park.

Response to Policy

- 5.15 The development proposed is of high quality and has been purposefully designed in terms of scale, materials, form and location so as to have minimal effect upon the character of the local landscape.
- 5.16 The form and pattern of existing boundaries surrounding the site would remain substantially unaltered, and visibility of the development would be reduced by retaining existing vegetation within the immediate vicinity of the site. Such boundary vegetation would be improved by greater levels of management.
- 5.17 Topography and the existing vegetation, especially woodlands and roadside vegetation, mean that long distance views of the proposed development are

unlikely. Although the application site is within the Arundel and Littlehampton strategic gap, its location means that it would have little effect on the landscape and visual amenity of the area around. It is anticipated to not cause physical or visual coalescence and the function of the gap would be retained.

- 5.18 The proposed mitigation planting would also provide enhancement of the landscape within the Strategic Gap.
- 5.19 Potential views of the proposed development from Arundel (including the Castle and the Cathedral) would be seen in the context of the existing landscape composition. This includes farm and nursery buildings as well as glimpses of the settlement edge of Littlehampton. Due to the low lying nature of the proposed development and the intervening layers of hedgerows and tree cover, it is anticipated that the proposed development would be barely discernible from any locations within Arundel.
- 5.20 Views towards Arundel and the South Downs National Park would generally be affected very little as the Application Site is in close proximity to farm buildings, nursery glass houses, mature vegetation and the railway line to the south of the Application Site. Glimpsed views from passing trains would be affected although the railway adjacent to the Application Site's southern boundary is below grade along the eastern section. Therefore the views to the north would be affected mainly along the western end of the southern boundary. Clear views towards Arundel would still be afforded from the train to the west of the Application Site, at Arundel Junction.

6. EFFECT ON LANDSCAPE ELEMENTS AND FEATURES

- 6.1 Existing landscape features and elements within and immediately surrounding the application site are shown on the Landscape Features Plan at Appendix

Topography

- 6.2 Due to the low lying nature of the proposed development it is unlikely that major changes to existing ground levels would be required. There would however be some localised changes to facilitate the placing of the transformer buildings and substations. The value would be low - medium and susceptibility low giving a medium sensitivity to the type of works proposed. With a negligible magnitude of change, there would be a negligible effect on the site topography.

Trees and Hedgerows

- 6.3 All existing trees and hedgerows would be retained and protected during the construction phase of the development. Once the main construction phase is completed, additional tree and hedge planting would be undertaken to provide additional visual screening and landscape enhancements.
- 6.4 The trees and hedgerows within the application site itself are generally of poor to medium quality, though much of the existing tree cover and hedgerows that surround the site appear to be of medium to good or very good condition. The value of trees and hedgerows would be low - medium as they are not TPO or within a Conservation Area, and susceptibility low, giving a medium sensitivity to the type of works proposed. Overall the trees and hedgerows are therefore considered to be of medium sensitivity to development of the type proposed.
- 6.5 There would be negligible effect on the existing trees and hedgerows during the construction phase of the development, resulting in a negligible effect. Once the additional enhancement planting is completed there would be a negligible beneficial effect on the local tree and hedgerow resource. As the proposed planting becomes established and grows and the improved management of the existing vegetation starts to take effect, this would increase to a low magnitude of change resulting in a minor beneficial effect.

Herbaceous Vegetation

- 6.6 There would be some disruption to the existing grassland in the areas under the solar panels during the installation of the solar panels, cabling and associated

infrastructure, but this would be reinstated/reseeded at the end of the main construction phase using a species-rich grass/wildflower mix.

- 6.7 The existing grassland is considered to be of low value being improved grassland and low susceptibility giving low sensitivity to development of the type proposed. Overall there would be a negligible magnitude of change to this grassland resulting in a negligible long term effect.

Public Rights of Way

- 6.8 There are no PRowS within the application area which would be directly affected by the proposed development.

Watercourses and Waterbodies

- 6.9 There are no watercourses or waterbodies within the application area which would be directly affected by the proposed development.

Summary

- 6.10 Effects on landscape elements and features can be summarised as:
- Negligible effect on site topography;
 - Long-term minor beneficial effect on trees and hedgerows within the application site;
 - Negligible effect on the existing grassland within the site;
 - No effect on PRowS; and
 - No effect on watercourses and waterbodies.
- 6.11 Overall there would therefore be a negligible long-term beneficial effect on landscape features and elements.

7. EFFECT ON LANDSCAPE CHARACTER

National Landscape Character Area

- 7.2 National Landscape Character Areas (NCAs) were originally prepared by the former Countryside Agency but are now managed by Natural England. These Countryside Character Assessments identify a number of key landscape characteristics for each specific area. The Application Site is located within the NCA and Joint Character Area (JCA) 126 South Coast Plain – a full description of the NCA can be found at:

<http://publications.naturalengland.org.uk/publication/4923911250640896?category=587>
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- 7.3 The key characteristics of the character area that are relevant to this assessment are:
- The plain slopes gently southwards towards the coast. From the coastal plain edge there are long views towards the sea and the Isle of Wight beyond.
 - There are stretches of farmed land between developed areas, often with large arable fields defined by low hedges or ditches.
 - Sand dune grasses and intertidal marsh communities are characteristic of the coastline, while small areas of species-rich meadow remain inland.
 - Along the exposed, open coastal plain and shoreline, tree cover is limited to isolated wind-sculpted woodlands and shelterbelts.
 - The area has significant urban development, with settlements along the coastline dominated by the Portsmouth conurbation, suburban villages and seaside towns including Bognor Regis, Littlehampton and Worthing linked by major road and rail systems.
- 7.4 The site and its environs broadly match this description, though it should be noted that elsewhere in the character area description there are descriptions of the southern, coastal part of the NCA is unsurprisingly different to this area.
- 7.5 Within the 'Opportunities' section, policy SE0 2 suggests examples such as "seeking to maintain and enhance areas of open countryside in this heavily urbanised NCA, to preserve the distinct settlement pattern and ensure that local communities have access to greenspace for their wellbeing and enjoyment." In-line with the 'Setting for Arundel' policy within the Local Plan 2003 and the emerging Local Plan 2011-2031, the Application Site has been sensitively located to have little or no effect on the character and visual setting of Arundel. Also, the Application Site is adjacent to the settlement edge of Wick and Littlehampton, but obscured by intervening vegetation and the railway.

- 7.6 The NCA covers a large area and a more local Landscape Character Assessment would provide more site specific information. Therefore this appraisal has referenced the **Landscape and Visual Amenity Aspects of Development Choices in Arun District 2006-2026 (LVAADC)**.
- 7.7 Within this assessment the Application Site falls into two character areas and consequently two character types.
- LCA 38 - Littlehampton Arun Valley Sides (southern half of the site)
- 7.8 Within this character area, the character type is described as:
- Type L1b – Large-scale open arable
- 7.9 The majority of the Application Site is located within LCA 38. This LCA is stated as having **Low/Medium** capacity for development and described as “Arable valley landscape, part of Lower Arun Valley; contributes to separation between Arundel and Littlehampton.” The summary assessment suggests that this equates to “development would have a significant and detrimental effect on the character of the landscape as a whole and, or, on the setting to existing settlement or outstanding assets within the District.”
- 7.10 The character areas covering a small section of the Application Site are:
- LCA 34 - Middle Arun Valley Floor (narrow strip in northern half of the site)
- 7.11 Within this character area, the character type is described as:
- Type V2 – Open Valley Floor.
- 7.12 This is a narrow strip of the Application Site (along the northern boundary to the south of the Black Ditch). This LCA is stated as having **negligible** capacity for development and described as “intact pastoral landscape, provides setting to Arundel and separation to Littlehampton, low lying floodplain.” The summary assessment suggests that development within LCA 34 would have a “significant and detrimental effect on the character of the landscape as a whole and, or, on the setting to existing settlement or outstanding assets (Arundel Castle and Cathedral) within the District.” However presumably to a slightly higher degree than that of areas of low/medium capacity.
- 7.13 Within LVAADC the Strategic Gaps between settlements have been assessed on the basis of structural landscape analysis, landscape characterisation and visual assessment to address the following criteria:

- The potential for coalescence between settlements.
- The potential for the erosion of settings of a settlement and loss of separate identity
- The potential for impact on Conservation Areas, Listed Buildings and significant views to landmarks.
- Intervisibility with adjacent settlements.
- Protection of undeveloped coastline.

7.14 The majority of the Arundel and Littlehampton Strategic Gap is described as “low lying agricultural land which includes small scale pasture and larger scale arable fields on the valley floor. Copses and groups of trees are located in and around Lyminster on the valley sides. Along the northern edge of Littlehampton, **vegetation along the Black Ditch Rife contains part of the northern edge of the settlement.**” (Bold text is author’s emphasis).

7.15 The existing character and visual context is described as having open pastoral and arable fields with a lack of containment. This allows long views between Arundel and Littlehampton. The valley landscape is said to form a “single visual compartment, its eastern and western boundaries defined by field boundaries and roads which follow the outer edges of the corridor of visibility between the two settlements.”

7.16 The gap is stated as forming a “single compartment. The gap extends both east and west to include the areas of landscape which give the essential context to the setting of both settlements; Boundaries follow logical features on the ground.”

7.17 However, the Black Ditch Rife area is said to contrast with the majority of the Arundel/Littlehampton gap. The Black Ditch Rife area is described as **heavily vegetated isolating and largely containing the urban edge landscapes to the north of Littlehampton. These urban edge landscapes make a negligible contribution to the setting to Littlehampton and have little effect on the intervisibility between Arundel and Littlehampton. They do not fulfil the functions of Strategic gap.** (Bold text is author’s emphasis).

7.18 Within the LVAADC conclusion it states that the “Littlehampton Northern Fringe, could from a landscape perspective, accommodate significant allocations of new development without significant detrimental effects on the character of the landscape as a whole. Such development would need to have regard for the setting and form of the existing settlement and the character and sensitivity of adjacent landscape character areas. Capacity for development within the

identified character areas varies and proposals would need to respond to site specific constraints.” (Bold text is author’s emphasis).

- 7.19 The Application Site is located within LCA 38 immediately to the west of LCA 39 Littlehampton Northern Fringe (which is given a ‘High’ capacity for development). The conclusion goes on to add that the Littlehampton Northern Fringe landscape character area “**can be deleted from their respective strategic gaps without compromising the separate identity of the existing settlements or increasing intervisibility or potential for coalescence between the principal settlements.**”
- 7.20 With reference to paragraphs 7.20 and 7.18, the Application Site location to the south of the Black Ditch, falls within an area that is said to make negligible contribution to Littlehampton’s setting and the intervisibility between Littlehampton and Arundel. The planting within the mitigation proposals would include native hedgerow and tree planting along the northern Application Site boundary adjacent to the southern edge of Black Ditch. This would be in accordance with the visual context and landscape character as described in the Landscape and Visual Amenity Aspects of Development Choices in Arun District 2006-2026 (LVAADC).
- 7.21 The low lying nature of the proposed development would also have a bearing on the findings of the LVAADC. It is considered that the proposed development would not form a prominent feature in the landscape compared to other ‘major development’ or ‘development in question’ options considered within the LVAADC (paragraph 1.1 and 2.1).
- 7.22 The Landscape and Visual Amenity Aspects of Development Choices in Arun District 2006-2026 is the most recent assessment referenced within the Appraisal.
- 7.23 **The Landscape Character Assessment of West Sussex** published in 2003 is also of material consideration. Within this document, West Sussex has been divided into distinct landscape character areas. The proposed development would fall within the **Lower Arun Valley (SC10)** character area on the South Coast Plain.
- 7.24 Unsurprisingly, the ‘key characteristics’ are broadly similar to the findings within LVAADC. Although further typical characteristics are mentioned, such as:

- Intrusive surrounding suburban activities.
- Little riverside vegetation
- Prominent railway on embankment.

7.25 Relevant 'Key Issues' for change are listed as:

- Development pressures at Littlehampton.
- Loss of some pasture and remaining wetland areas on floodplain due to drainage schemes.
- Introduction of further concreted sections on river banks for flood protection.
- Changes in farm practice from permanent pasture to silage or arable.

7.26 The 'Landscape and Sensitivities' section lists the following key sensitivities for area SC10:

- Loss of pastoral character of the valley.
- Any large scale housing/commercial development.
- Change to open character.
- Loss of long views to Arundel and the Downs.
- Change in important views including those of settlements and landmarks.
- Loss of wetland areas.
- Change to river banks and drainage by unsympathetic re-profiling or flood protection measures.

7.27 The temporary nature of the solar farm would allow the removal of the proposed development at the end of its lifetime, without notable detrimental effect to the Application Site area. Indeed, the mitigation native hedgerow and tree planting and meadow grass seeding would help to integrate the proposed development into the existing landscape character. The changes to important views would be minimal and in the long term the biodiversity across the site would be slightly improved, with the increase in grazing pasture and wildflower meadow.

7.28 Relevant 'Land Management Guidelines' for area SC10 include:

- **Ensure the open nature and characteristic vegetation of the valley are considered in any future development, especially the landscape treatment of any A27 improvements.**
- **Encourage tree planting to screen and shelter urban fringes**
- **Create minor landscape features through the establishment of planted areas up to half a hectare on the floodplain.**
- **Promote sympathetic management of river valley edge.**

- 7.29 It is clear from the suggested landscape management guidelines that the mitigation proposals would be in accordance with conserving and maintaining key views across the valley.

Author's Own Assessment of the Existing Landscape Character up to 2km from the Application Site

Landscape Scale

- 7.30 The openness of the low lying fields within the Arun Valley, to the south of Arundel and northwest of Littlehampton means that the site and its immediate environs are of a relatively large scale when compared to the wider landscape. However to the southeast, west and east of the Application Site, the urban areas (Littlehampton, Wick, Ford and Climping) and increased landcover (trees, woodland and hedgerows), correspond more to a medium scale landscape. The Application Site is located on the transition between landscape scale. The field within which the Application Site is located is of a medium scale.
- 7.31 The proposed development is considered to be of medium scale and therefore in keeping with the local landscape.

Landform and Enclosure

- 7.32 The topography of the coastal plain between the coast and the South Downs is generally flat or gently undulating. The South Downs Hills rise to the north-west, north and north-east, generally reaching heights of 200m – 250m AOD. The Arun River Valley is a broadly open valley between Arundel and the coast. The fields typically have few hedgerows and very few trees, and therefore little sense of enclosure
- 7.33 Along the northern fringe of Wick (adjacent to the railway line) and Littlehampton (adjacent to the A259) to the south of the Application Site, there are narrow belts of trees that obscure views into and out of the settlements.
- 7.34 The proposed development is a low-lying one, with the majority of structures being around 2m tall and the tallest being only 4.7m tall. As a result it will not affect the topography of the site or the local area and will not alter the existing level of enclosure.

Landscape Pattern and Complexity

- 7.35 The local landscape is of variable complexity. The Arun Valley is open low lying grassland and arable fields. Either side of the valley there are small settlements and differing field sizes, interspersed with areas of woodland. The A27 major highway runs east to west, with a network of hedged and tree-lined roads connecting the settlements. Three railway lines connect to the west of the Application Site. Amongst small settlements the field pattern is generally irregular in shape with areas of linear woodland treebelts and small groups of trees.
- 7.36 The proposed solar farm is of simple, irregular form and will therefore fit within the landscape without altering the landscape pattern.

Settlement

- 7.37 The settlement pattern is one that is generally centred around road junctions, though there are also isolated properties and farmsteads scattered throughout the landscape. The pattern will not be affected by the proposed development.

Existing Built Infrastructure and Human Influence

- 7.38 Wick, Littlehampton, Rustington and East Preston form a large continuous urban expanse to the south and south east of the Application Site. Along the northern and western edges of this urban expanse there are large areas of light industrial works, a golf course and plant nurseries (close to the Application Site).
- 7.39 Isolated farms (Brookbarn Farm) are located to the southwest and north of the Application Site, with horticultural nurseries to the east of the Application Site.
- 7.40 The Arun Valley Railway and the West Coastway Railway connect to the west of the Application Site. The railway lines are generally slightly raised above the agricultural fields along the valley floor.
- 7.41 To the west of the River Arun, the settlements tend to be smaller (Ford, Climping, Tortington) but there are elements such as Ford Open Prison, the old airfield with light industrial works and large areas of horticultural nursery glasshouses to the north of Yapton.
- 7.42 The above landscape elements demonstrate the clear presence of considerable amounts of built infrastructure within the area. Although the proposed solar farm would be a new form of development, it is considered that this would be in

keeping with the development and landscape context on the edge of Littlehampton.

Skylines

- 7.43 Skylines in the local area are generally formed by trees, built form, tree belts, and in some instances the landform itself where this is prominent in more distant views such as from the north.
- 7.44 The proposed development is low lying and would not form a dominant feature on the skyline as it would generally be screened by existing vegetation and landform from the south and east. From views from the north and west, the belts of trees around the edge of Wick and Littlehampton would form a backdrop to the proposed development.

Inter-visibility

- 7.45 The low lying nature of the proposed development, combined with the extensive tree and shrub planting around the edge of Littlehampton and Wick restricts inter-visibility from the south and east. Visibility from the north and west are more open and railway embankments and intermittent vegetation form the visual barriers. The low profile of the proposed developments means that the proposed solar farm would be unlikely to have a notable effect on inter-visibility within the surrounding area.

Tranquillity

- 7.46 Although a predominantly rural landscape to the north and west, tranquillity is affected by the railway lines, traffic on the network of minor roads and agricultural machinery operating in fields. The existing level of tranquillity would not materially change with the proposed development in place.

Summary

- 7.47 The published landscape character assessments and the author's own assessment are broadly similar for the site and its environs. From published assessments and the author's own assessment the key features can be summarised as:
- An agricultural landscape of small to medium-sized fields, predominantly grassland with some arable cultivation.

- Fields boundaries are formed by water courses and simple fencing within the Arun Valley, with some hedgerow planting, but more extensive vegetation along the eastern and western sides of the shallow valley.
- The railway lines are a prominent slightly raised feature within the valley floor, running to the east of the winding River Arun.

Assessment of Effects on Landscape Character

- 7.48 The Application Site lies on the edge of the Arundel and Littlehampton Strategic Gap. This area (In terms of the Arun District Council 2006 study (LVAADC)) largely comprises Landscape Character Area 34 - Middle Arun Valley Floor. The low lying mainly pastoral agricultural landscape character is considered to be of **substantial** value, and **major** landscape sensitivity. Thus giving an overall landscape capacity for this landscape area for built development of **Negligible**. (According to the assessment methodology within LVAADC). Only a very small part of the Application Site falls within this landscape area.
- 7.49 The majority of the Application Site is located (In terms of the Arun District Council 2006 study (LVAADC)) within Landscape Character Area 38 – Littlehampton Arun Valley Sides . This has a far lower landscape character value of **slight** and a landscape sensitivity of **substantial**. Thus giving an overall landscape capacity for this landscape area for built development of **low/medium**. (According to the assessment methodology within LVAADC).
- 7.50 From the author's site survey and assessment, it is considered that the construction of the proposed development would maintain the integrity of the Arundel and Littlehampton strategic gap. When viewed from higher ground to the north (near Arundel) the Arun Valley and the River Arun would effectively be changed very little. The perception of width and scale of the Arun Valley as it winds towards the coast would be retained.
- 7.51 The Application Site appears to be closely related to the settlement fringe of Littlehampton and Wick. The strong human influence of nearby nurseries, farm buildings and caravan sites. The residential properties within Wick and Littlehampton are largely screened from the Application Site by tree cover along the intervening railway embankment. However they are a large urban presence to the south and southeast of the Application Site.
- 7.52 The proposed solar farm would be a new type of development. The susceptibility of the landscape to changes arising from development of the type proposed within a locally designated landscape, would be expected to be **medium**. The

value of the landscape would be **medium - high**. This would give a sensitivity of **high**.

7.53 Because of the settlement edge location, mixed landscape elements, such as the horticultural nurseries, farm buildings, railway line, open southern setting for Arundel, rarity in a largely built up coastal area, the magnitude of change is anticipated to be **negligible**.

7.54 This would give an overall scale of effect according to the author's assessment of **minor**.

8. EFFECT ON VISUAL AMENITY

Visual Receptors and Zone of Theoretical Visibility (ZTV)

- 8.1 The screened Zone of Theoretical Visibility and Viewpoint Location Plan (**Appendix 8**) identifies the potential locations from which the development may be visible. The ZTV has been produced using ArcGIS 10.1 and generated using Landform Panorama 50m Digital Terrain Modelling (DTM) data. Existing built development and larger blocks of woodland have also been modelled (at 8m and 15m tall respectively) to take account of the screening effect that these would provide. However the screening effect provided by small blocks of woodland, screen belts and hedgerows/hedgerow trees have not be taken into account, and consequently the actual extent of the area from which the proposals are visible is likely to be much smaller.

Baseline Visual Receptors

- 8.2 Following site investigation, it is apparent that the greatest potential effect on visual amenity would be within the immediate surroundings of the application site. More distant views of the site would be limited through a combination of the screening and filtering effect of the un-modelled intervening vegetation. Any more distant views of the Proposed Development would be assimilated into the wider landscape.

Residential Properties

- 8.3 As previously noted, the nearest settlements to the Application Site are:
- Wick (100m southeast and 160m east (Thornlea Park));
 - Lyminster (550m northeast);
 - Littlehampton (650m south);
 - Ford (1.2km west);
 - Tortington (1.6km northwest);
 - Poling (2.5km east northeast);
 - Climping (1.9km southwest); and
 - Arundel (2.1km north).
- 8.4 As well as Brookbarn Farm adjacent to the Application Site, there are also individual farms and residential properties within the vicinity of the Application Site. These include properties at Court Wick Park (330m south of the nearest part of the Application Site), The Willows (The Marina (1.3km west), Manor Farm

(1.4km northwest), Brookhurst Farm (1.5km northeast) and Priory Farm (2km northwest).

- 8.5 Within 200m to 700m to the east of the Application Site (between Wick and Lyminster) there are two caravan parks, numerous glass houses associated with plant nurseries (Torri Nursery, Old Mead Nursery, Meadview Nursery and Sandfield Nursery). There is also a recycling centre and Holiday Centre.
- 8.6 The field survey has shown that because of the flat low lying terrain, if the proposed development is visible from any of these properties or locations, generally a section of the edge of the proposed development would be visible only. From locations within local settlements, views are largely obscured by intervening landform and vegetation. (River and railway embankments to the west, north and south and mature trees and hedgerow vegetation to the south, east and north of the Application Site).
- 8.7 A limited number of properties close to the Application Site southern boundary (Linnet Close) would have filtered and oblique views, mainly during winter months. The railway intervening embankment vegetation would filter and obscure visibility of the proposed development.
- 8.8 The Proposed Development would be partially visible from more elevated locations within Arundel (including Arundel Castle). However the Littlehampton and Wick settlement edge is very close to the Application Site. Nursery Glass houses, farm buildings and new residential development are considered more notable in the landscape. Only the backs of panels in the proposed development would be partially visible, seen as a distant dull coloured horizontal narrow strip, merging with the existing field boundary vegetation and field pattern.

Public Highways

- 8.9 Landform and intervening vegetation mean that the Application Site is rarely visible from public highways. Views of the proposed development would be therefore limited to transient glimpses and during the field survey no discernible views were found. Views from the A284 south of Lyminster, to the east of the Application Site are screened and filtered by roadside hedgerow vegetation and obscured by landform.

Public Rights of Way (PRoWs) and Open Access Land

- 8.10 The proposed development would be partially visible from a limited number of sections of the PRoW network. From viewpoints along PRoW 206 on the western bank of the River Arun the proposed development would be partially filtered by intervening vegetation and screened by railway embankment. Sections of panels that may be visible, would generally be seen in the context of existing nursery glass houses, farm buildings and residential development on the edge of Littlehampton and Wick.
- 8.11 From PRoW 2207 to the north of Lyminster, the visual composition is similar to that experienced from PRoW 206. Although the prominent landscape features (Gas tower for example) within Littlehampton are more directly within the view in the distance.
- 8.12 From PRoW 2165 to the south of Lyminster Village, the caravan park development is more prominent. However even from this close proximity (less than 500m) only a small section of the proposed development would be visible.
- 8.13 The proposed tree and shrub planting to the south of Black Ditch, once established, would effectively further obscure views of the proposed development from all of the viewpoint locations to the west, north and east of the Application Site, including the locations on PRoW cited above.
- 8.14 From PRoW within and near to Arundel (including Monarch's Way), the distance makes the Application Site difficult to discern. The visual effect being similar to that suggested in paragraph 8.8 above.
- 8.15 The field survey has shown that the proposed development is unlikely to be visible from any other PRoWs in the local area.
- 8.16 Views from passing trains would be glimpsed and transient although the railway adjacent to the Application Site's southern boundary is below grade or obscured by intervening vegetation along much of its length (eastern section). Therefore the views to the north would be affected mainly along the western end of the southern boundary where the line is above grade. Near the central southern boundary (under pass and level crossing), views of the solar farm would be clear, but the setback of the proposed development from the field boundary would allow the long views of Arundel to be retained.

Landscape Designations

- 8.17 As previously noted, the site and its environs lie within the locally designated 'Arundel Setting' and there will be some visibility of the proposed development from limited parts of this designation.
- 8.18 Visibility from the South Downs National Park includes views from Arundel Castle and further distant from elevated locations near Rewell Wood. In both instances it is anticipated that the proposed development would not be a notable landscape feature and (see paragraph 8.8) would blend seamlessly with the existing Littlehampton and Wick settlement edge.

Selection of Representative Viewpoints

- 8.19 The screened ZTV for the proposed development was used to guide the selection of representative viewpoints for the visual assessment.
- 8.20 The selected viewpoints are not intended to cover every possible view, but rather are representative of a range of receptor types e.g. residents, horse riders, walkers, cyclists and road users from various directions and distances from the site boundary.
- 8.21 A visual assessment from the representative viewpoints has been carried out in November 2014 to determine how the proposed development might influence the visual amenity for these typical receptors. The assessment was carried out as part of the site survey, with the photographic assessment recording the character of the view and the existing visibility of the site. The viewpoint photographs and detailed visual assessment are provided at **Appendix 9**, with photomontages of the proposed development from selected viewpoints (VPs 3, 7, 12 and 13) are provided at **Appendix 10**.
- 8.22 The field survey was undertaken during winter months when deciduous vegetation was only partially in leaf. It is therefore possible that the visibility of the site may be further increased during the winter months when such deciduous vegetation is not in leaf. However, the density and thickness of the majority of the screening vegetation, combined with the fact that for many views the screening vegetation occurs in multiple layers (e.g. views are screened by more than one field boundary hedge or embankment) means that visibility is likely to be similar to the views shown in this appraisal.

Visual Assessment (Construction Phase)

- 8.23 The construction phase for the proposed development would be short (approx. 11 weeks). Levels of activity on the site would increase from those associated with the current agricultural activities, but these would generally only be visible to receptors in the immediate vicinity of the site, predominantly people using the footpath 206 along the Arun River, and 2165 and 2207 to the east of the Arun River.
- 8.24 These footpath's overall sensitivity are assessed as high (see viewpoints 1, 3, 4, 5, 6, 12 and 13). The magnitude of change is assessed as low for the duration of the construction phase, resulting in a moderate adverse effect.
- 8.25 For people visiting Arundel Castle and residents and visitors within elevated locations, the value of the view is high (as it is a pleasant rural view but with local landscape designation). The susceptibility to changes of the type proposed is also high as this is a new form of development within the view. Construction activity is however more widespread; bearing in mind the housing under construction to the south of the Application Site. The overall sensitivity is therefore assessed as high. The magnitude of change is assessed as low for the duration of the construction phase as the activities would be seen some distance to the south in the context of the Littlehampton and Wick settlement edge, the on-going construction south of the Application Site, resulting in a moderate adverse effect.
- 8.26 For receptors within Linnet Close to the south of the Application Site, the value of the view is low - medium (see viewpoint 11), and the susceptibility to changes of the type proposed is medium (First floor views, at an oblique angle partially filtered by intervening vegetation). The magnitude of change is assessed as low, resulting in a minor adverse effect.

Visual Assessment (Operational Phase)

Distant Views (2km+ from the Application Site)

- 8.27 There are four representative viewpoints located more than 2km from the application site – VPs 6, 7, 8 and 9. VP6 and 9 would undergo negligible effect on visual amenity as a result of the proposed development. VP7 and VP8 would undergo minor scale of effect. This is because they are on slightly elevated land, albeit from a long distance from the Application Site, the view is looking directly down the Lower Arun Valley.

Medium Range Views (500m to 2km from the Application Site)

8.28 There are eight medium range representative viewpoint locations: VPs 1, 2, 3, 4, 5, 10, 13 and 14. Of these, only VP13 (located on PRow footpath 2207) would undergo minor adverse effects on visual amenity; the other viewpoints would undergo negligible effects only.

Short Range Views (less than 500m from the Application Site)

8.29 Of the two short-range representative viewpoints:

VP12 would undergo moderate scale of effects at Year 1, but this would be reduced to negligible once the mitigation planting has established.

VP11 is illustrative of users of the footway and green space around Linnet Close on the edge of Wick. It is also representative of a limited number of residential properties with partial and filtered first floor views. The scale of effect for users of the footway is estimated to be negligible and for the first floor views; minor.

Night-time Visual Effects

8.30 There would be no lighting installed as part of the proposed development. As a result there would be no night-time effects on visual amenity.

9. MITIGATION AND ENHANCEMENT

- 9.1 Mitigation measures have been incorporated into the design of the Proposed Development through an iterative design process. The mitigation measures are therefore an integral part of the Proposed Development rather than an add-on.

Mitigation during the Construction Phase

- 9.2 Existing trees and hedgerows to be retained would be protected during the construction phase to prevent or minimise any adverse effects on them and their root protection areas.

Mitigation of Effects on Landscape Features and Elements

- 9.3 The existing underpass under the West Coastway railway along the southern boundary would be left clear to allow the retention of access by the farmer through the field.
- 9.4 A native hedge would be gapped up and planted with trees along the northern edge of the field on the alignment of the existing remnant hedge parallel with the alignment of the Black Ditch, using a locally native species mix as outlined in the plant schedule on the planting plan that accompanies the planning application. This would have the effect in landscape terms of containing the northern edge of Littlehampton, which is a function of the Black Ditch and associated vegetation alignment to the east of the Application Site.

Mitigation of Effects on Landscape Character

- 9.5 The very limited effects that have been identified on local landscape character, combined with the proposed new and enhancement planting mean that no additional mitigation measures are considered necessary in relation to effects on landscape character.

Mitigation of Effects on Visual Amenity

- 9.6 A native hedge with trees would be planted along the eastern boundary along the inside of the existing boundary fenceline and terminating at the railway embankment in the southeast Application Site boundary. Provision would be made for the site access entrance at Old Mead Lane.

- 9.7 The planting up of the hedge along the northern and eastern field boundaries, would reduce any effects on visual amenity even further.

Summary

- 9.8 It is considered that the combination of retention and enhancement of existing planting, together with new planting, would result in a strong landscape framework for the Proposed Development which in the longer term would enhance the landscape of the existing site.
- 9.9 As a result of the above it is considered that there would be no additional mitigation works required to address any residual effects arising from the Proposed Development.

10. SUMMARY AND CONCLUSION

- 10.1 This landscape appraisal relates to a proposed solar farm on approximately 5.2ha of grassland on the edge of the Lower Arun Valley in West Sussex.
- 10.2 The site lies 2km to the south of the South Downs National Park. The National Park southern boundary runs east to west. Arundel castle is located within the National Park.
- 10.3 Locally the Application Site is located within the 'Setting of Arundel' area and the settlement gap between Arundel and Littlehampton. Views across the area within the 'Setting of Arundel' and from the National Park are very limited due to intervening vegetation and the distance making the Application Site difficult to discern. Where views are afforded, only short and narrow horizontal sections of the proposed development edge would be visible, often viewed from the back. Existing vegetation along the West Coastway railway along the Application Site southern boundary is an effective visual backdrop to the proposed development.
- 10.4 It is anticipated that the effect on local character and visual amenity (including views from Arundel and the National Park) are to a large degree mitigated by the location of the Application Site adjacent to the Littlehampton and Wick settlements.
- 10.5 The existing vegetation and mixed residential and commercial buildings to the south and east of the Application Site would allow the retention of the existing landscape composition after construction of the solar farm.
- 10.6 The proposed development would fit within the existing field structure and would include the enhancement of the hedgerow resource surrounding the site by infill and new planting. Parts of the site not occupied by solar panels would be seeded with a wildflower mix. There would be no loss of existing landscape features or elements.
- 10.7 The limited inter-visibility within the local area, especially to the south and east of the Application Site arises from the local low lying topography existing railway and river embankments, tree belts and dense hedges. Overall the proposed development would have only limited effects on visual amenity. Receptors that would undergo adverse effects are mainly limited to those on footpaths in the immediate vicinity of the site, notably along the Arun River. The low-lying nature of the development means that even receptors close to the site would undergo no

greater than minor adverse effects after the establishment of the mitigation native hedgerow planting with trees.

- 10.8 In summary, the Proposed Development is considered to be appropriate to the setting and landscape character of the site and offers suitable landscape mitigation measures in terms of visual amenity.

APPENDIX 1

SITE LOCATION PLAN

APPENDIX 2

DETAILED METHODOLOGY

Introduction

The Landscape and Visual Appraisal has been undertaken in accordance with best practice, as outlined in the following published guidance:

- Guidelines for Landscape and Visual Impact Assessment (3rd edition) - Landscape Institute/ Institute of Environmental Management and Assessment (2013)
- GLVIA3 Statement of Clarification 1/13
- Landscape Character Assessment Guidance for England and Scotland - (2002) Countryside Agency / Scottish Natural Heritage
- Photography and photomontage in landscape and visual assessment (2011) - Landscape Institute Advise Note 01/11

The proposed scheme was assessed for the purposes of the landscape and visual analysis.

The study area for the LVIA was taken to be a 5km radius from the site. However, the main focus of the assessment was taken as a radius of 2km from the site as it is considered that beyond this distance, even with good visibility, the proposed development would not be perceptible in the composite landscape.

The effects on settings of heritage assets or ecological/environmental assets are not considered within this LVIA.

Landscape Elements and Character Assessment Methodology

A baseline landscape assessment was carried out to determine the current elements and character of the landscape within and surrounding the site. This involved an initial desktop study of:

- Ordnance survey maps at 1:50,000, 1:25,000 scales
- Aerial photographs of the site and surrounding area
- Datasets for rural designations from the MAGIC website (Multi Agency Geographic Information for the Countryside)
- Relevant planning policy
- National and local scale landscape character assessments

Visual Assessment Methodology

The assessment of visual effects was undertaken on the basis of viewpoint analysis as recommended in best practice guidelines. The viewpoints which are in different directions from the site and are at varying distances and locations were selected to represent a range of views and visual receptor types.

The viewpoints are representational and not exhaustive. They are taken from publicly accessible land and not from any third party, private, land.

The viewpoints were used as the basis for determining the effects of visual receptors within the entire study area. The viewpoints were photographed at 1.6 metres above ground level.

Assessment Criteria

The significance of effects is ascertained by cross referencing the sensitivity of the baseline landscape or visual receptor and the magnitude of change as a result of the development.

Sensitivity of Landscape Features

Sensitivity is determined by a combination of the value that is attached to a landscape feature or element and the susceptibility of the landscape feature/element to changes that would arise as a result of the Proposed Development – see Pages 88-90 of GLVIA3. Both value and susceptibility are assessed as high, medium or low.

Table 1: Sensitivity of Landscape Features

	VALUE			
SUSCEPTIBILITY		HIGH	MEDIUM	LOW
	HIGH	High	High	Medium
	MEDIUM	High	Medium	Low
	LOW	Medium	Low	Low

Magnitude of Change on Landscape Features

Professional judgement has been used to determine the magnitude of direct physical impacts on individual existing landscape features as follows:

Table 2: Criteria for magnitude of change for landscape features

Negligible	No loss or very minor alteration to part of an existing landscape feature
Low	Minor loss or alteration to part of an existing landscape feature
Medium	Some loss or alteration to part of an existing landscape feature
High	Total or major loss of an existing landscape feature

Sensitivity of Landscape Character

Sensitivity is determined by a combination of the value that is attached to a landscape and the susceptibility of the landscape to changes that would arise as a result of the Proposed Development – see Pages 88-90 of GLVIA3. Both value and susceptibility are assessed as high, medium or low.

Table 3: Sensitivity of Landscape Character

	VALUE			
SUSCEPTIBILITY		HIGH	MEDIUM	LOW
	HIGH	High	High	Medium
	MEDIUM	High	Medium	Low
	LOW	Medium	Low	Low

Magnitude of Change on Landscape Character

Professional judgement has been used to determine the magnitude change on landscape character as follows:

Table 4: Criteria for magnitude of change for landscape character

Negligible	No notable introduction of new elements into the landscape or change to the scale, landform, land cover or pattern of landscape
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Low	Introduction of minor new elements into the landscape or some minor change to the scale, landform, land cover or pattern of landscape
Medium	Introduction of some notable elements into the landscape or some notable change to the scale, landform, land cover or pattern of landscape
High	Introduction of major elements into the landscape or some major change to the scale, landform, land cover or pattern of landscape

Sensitivity of Visual Receptors

Sensitivity is determined by a combination of the value that is attached to a view and the susceptibility of the receptor to changes in that view that would arise as a result of the Proposed Development – see Pages 113-114 of GLVIA3. Both value and susceptibility are assessed as high, medium or low.

Table 5: Sensitivity of Visual Receptors

	VALUE			
SUSCEPTIBILITY		HIGH	MEDIUM	LOW
	HIGH	High	High	Medium
	MEDIUM	High	Medium	Low
	LOW	Medium	Low	Low

Magnitude of Change on Visual Amenity

Professional judgement has been used to determine the magnitude change on landscape character as follows:

Table 6: Criteria for magnitude of change for visual receptors

Negligible	No notable change in the view
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Low	Some change in the view that is not prominent / few visual receptors affected
Medium	Some change in the view that is clearly visible and forms an important but not defining element in the view
High	Major change in the view that has a defining influence on the overall view / many visual receptors affected

Scale of Effects

The scale of the landscape and visual effects is determined by cross referencing the sensitivity of the landscape feature, landscape character or view with the magnitude of change. The scale of effects is described as, major, moderate, minor or negligible.

Table 7: Scale of effect thresholds for landscape character, landscape features and visual receptors

		Magnitude of Change			
Sensitivity		High	Medium	Low	Negligible
	High	Major	Major	Moderate	Minor
	Medium	Major	Moderate	Minor	Negligible
	Low	Moderate	Minor	Negligible	Negligible

APPENDIX 3

LANDSCAPE DESIGNATIONS PLAN

APPENDIX 4

SITE LAYOUT

APPENDIX 5

LANDSCAPE FEATURES PLAN

APPENDIX 6

LOCAL LANDSCAPE CHARACTER AREAS – LCA 34 - MIDDLE ARUN VALLEY FLOOR & LCA 38 - LITTLEHAMPTON ARUN VALLEY SIDES

APPENDIX 7

WEST SUSSEX LAND MANAGEMENT GUIDELINES
SHEET SC10

APPENDIX 8

SCREENED ZONE OF THEORETICAL VISIBILITY AND VIEWPOINT LOCATION PLAN

APPENDIX 9

REPRESENTATIVE PHOTOVIEWS AND DETAILED REPRESENTATIVE VIEWPOINT ASSESSMENT

APPENDIX 10

PHOTOMONTAGES FROM SELECTED VIEWPOINT LOCATIONS

APPENDIX 11

CONTEXT PHOTOS