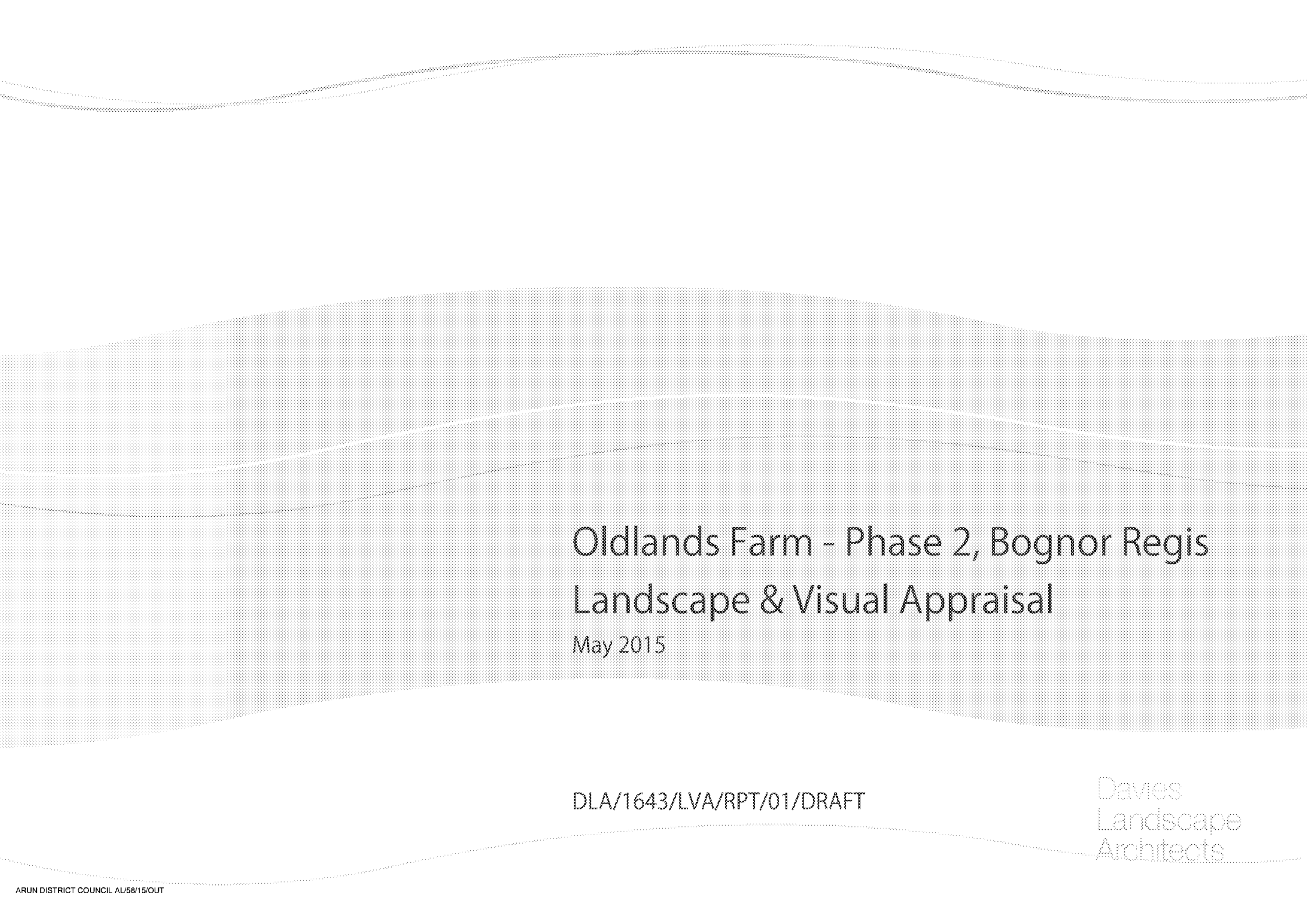




Oldlands Farm - Phase 2, Bognor Regis Landscape & Visual Appraisal

May 2015

DLA/1643/LVA/RPT/01/DRAFT

Davies
Landscape
Architects

Oldlands Farm - Phase 2, Bognor Regis

Landscape & Visual Appraisal

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This document has been produced on behalf of Hanbury Properties by Davies Landscape Architects for the sole purpose of planning for the project below:

Document Title: Landscape and Visual Appraisal, Land at Oldlands Farm, Bognor Regis

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1 INTRODUCTION

1.1 Purpose

1.1.1 This Landscape and Visual Appraisal has been prepared by Davies Landscape Architects Ltd (DLA) on behalf of Hanbury Properties in support of an outline planning application on land at Oldlands Farm. The proposals provide development of up to 20,453m² for B2 and B8 employment uses.

1.1.2 This document should be read in conjunction with the Planning Statement prepared by Luken Beck and Design and Access Statement prepared by DLA, together with the other technical reports submitted as part of the application.

1.1.3 The assessment considers the effects of the proposed development upon the landscape and visual resources of the site and surrounding area.

1.1.4 A site visit was carried out during March 2015.

1.2 Site Location

1.2.1 The combined 11.8ha application site (5.76 Flood Compensation Area - FCA and 6.04ha Development Area) is located on the northern fringes of Bognor Regis, approximately 0.5km southeast of the village of Shripney (Ordnance Survey 100m grid reference: SU 945 018).

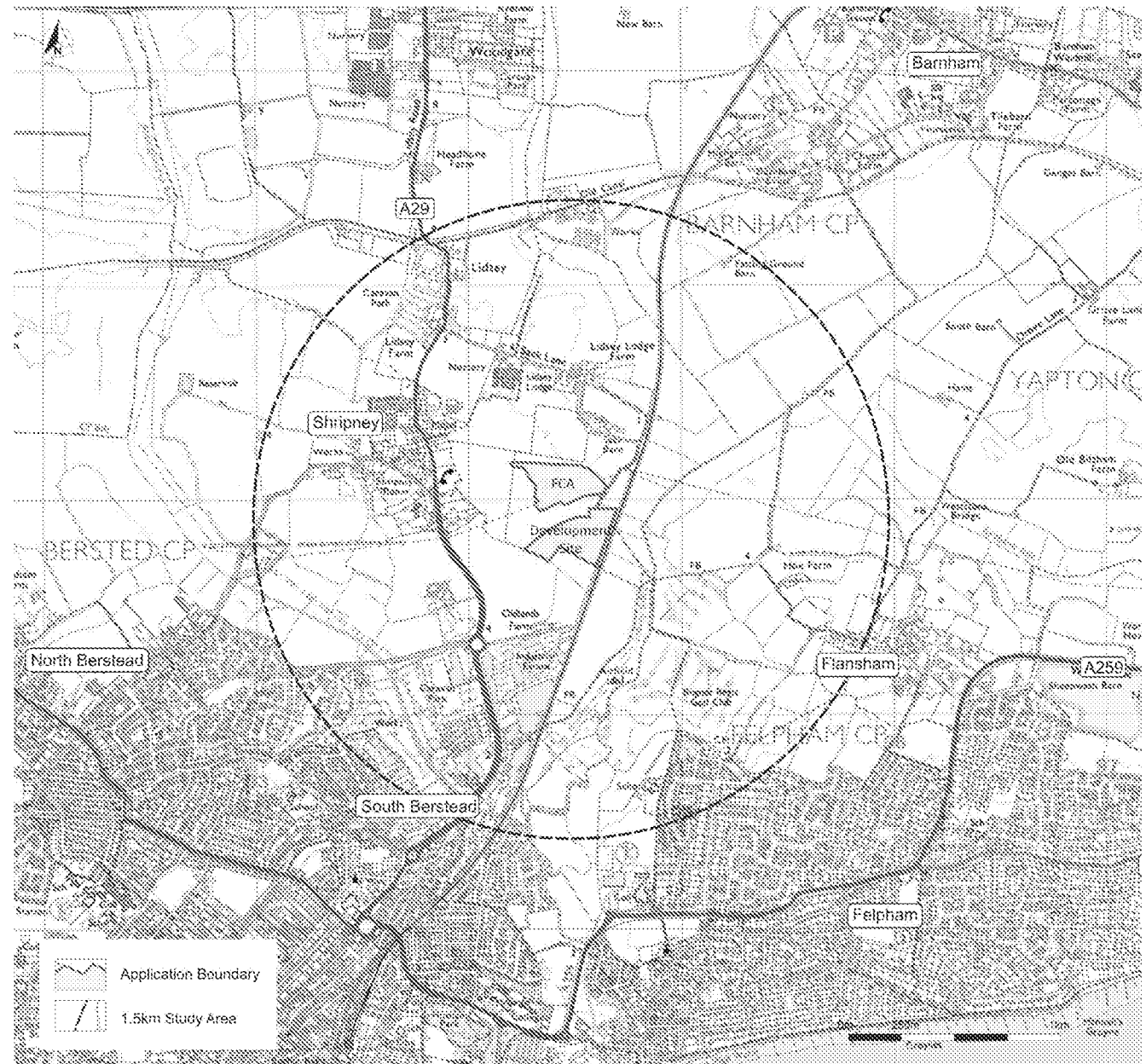


Figure 01 - Site Location

- 1.2.2 The application site lies immediately adjacent to the recently permitted Rolls Royce development at Oldlands Farm which is currently under construction and forms Phase 1a of an outline permission for the whole site to the southwest.
- 1.2.3 Oldlands Farm is situated adjacent to the A29 Shripney Road/Rowan Way roundabout, and south of the Bognor Northern Relief Road (BNRR) which is currently under construction. The development 400m south of the application site is the Southern Cross Industrial Estate, which consists of a number of industrial and retail uses in the northern part of Bognor Regis.
- 1.2.4 The site location is shown on Figure 01 and lies within the jurisdiction of Arun District Council (ADC).
- 1.2.5 For policy, Public Rights of Way (PRoWS), and services information reference has been made to <https://www.westsussex.gov.uk/land-waste-and-housing/public-paths-and-the-countryside/public-rights-of-way/public-rights-of-way-imap/imap/> and <http://www.natureonthemap.naturalengland.org.uk/>.
- 1.2.6 There is currently no public access to the site due to the temporary closure of Public Footpath 152 (Order Ref: 2013) which will be reopened once the construction of the BNRR is completed. This footpath would normally run across the north eastern corner of the site.

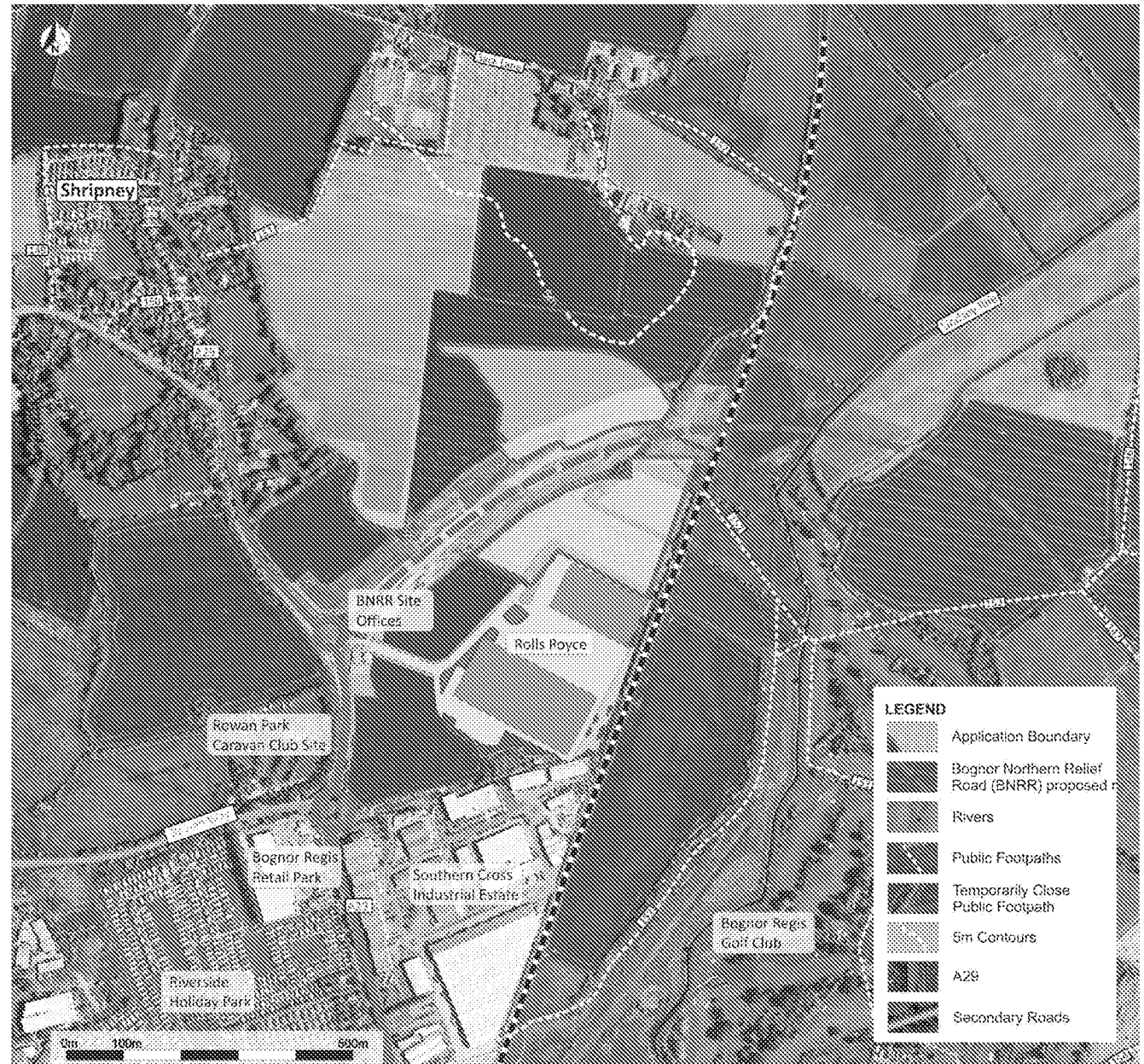


Figure 02 - Site Context

1.3 Project Description

- 1.3.1 The primary objectives of this landscape and visual appraisal are to evaluate the character of the existing landscape and assess how the proposals will affect its landscape character and visual amenity.
- 1.3.2 The proposals are illustrated in two options; Figure 03 & 04 showing how the site could be developed either as a mixed B2/B8 development or solely for B2 uses.

Table 1 Development Schedule - Option 1 (B2 Uses)

Plot No.	Use Class	Gross Internal Floor Area (m²)	Height
1	B2	1317	10m
2	B2	2033	10m
3	B2	836	10m
4	B2	741	10m
5	B2	1020	10m
6	B2	3300	12m
7	B2	2324	12m
8	B2	1670	12m
9	B2	1670	12m
10	B2	1562	12m
11	B2	1000	12m
Total		17,473m²	



Figure 03 - Illustrative Landscape Masterplan: B2 Use

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Table 2 Development Schedule - Option 2 (B2/B8 Uses)

Plot No.	Use Class	Gross Internal Floor Area (m ²)	Height
1	B2	1317	10m
2	B2	2033	10m
3	B2	836	10m
4	B2	741	10m
5	B2	1020	10m
6	B8	8000	13.5m
7	B8	5506	13.5m
8	B2	1000	10m
Total		20,453m²	



Figure 04 - Illustrative Landscape Masterplan: B2/B8 Use

1.4 Study Area

- 1.4.1 The study area has been determined through a combination of desk study, contour maps and subsequent field survey and identifies the extent upon which the proposals have the potential to affect, either directly or indirectly the landscape character or visual amenity of the area.
- 1.4.2 The assessment identified that the site is located within a low lying area on the outskirts of Bognor Regis. The site visit concluded that although vegetation was minimal, the low lying topography and development at Rolls Royce, the Southern Cross Industrial Estate and Bognor Regis Retail Park and the BNRR notably reduce the visual envelope and opportunities for views beyond a 750m radius.
- 1.4.3 Due to the distance and wide panoramas available from the elevated South Downs National Park (4.5km N), it was concluded that the site was indistinguishable in the context of panoramic views towards Bognor Regis.
- 1.4.4 The visual envelope was therefore used to define the study area boundary and is contained within 1km of the site boundary (Fig 05).
- 1.4.5 Site visits were subsequently undertaken within the study area to determine and refine the visual envelope and to further assess the potential nature and magnitude of views within this area. The findings are included in Section 4.0.

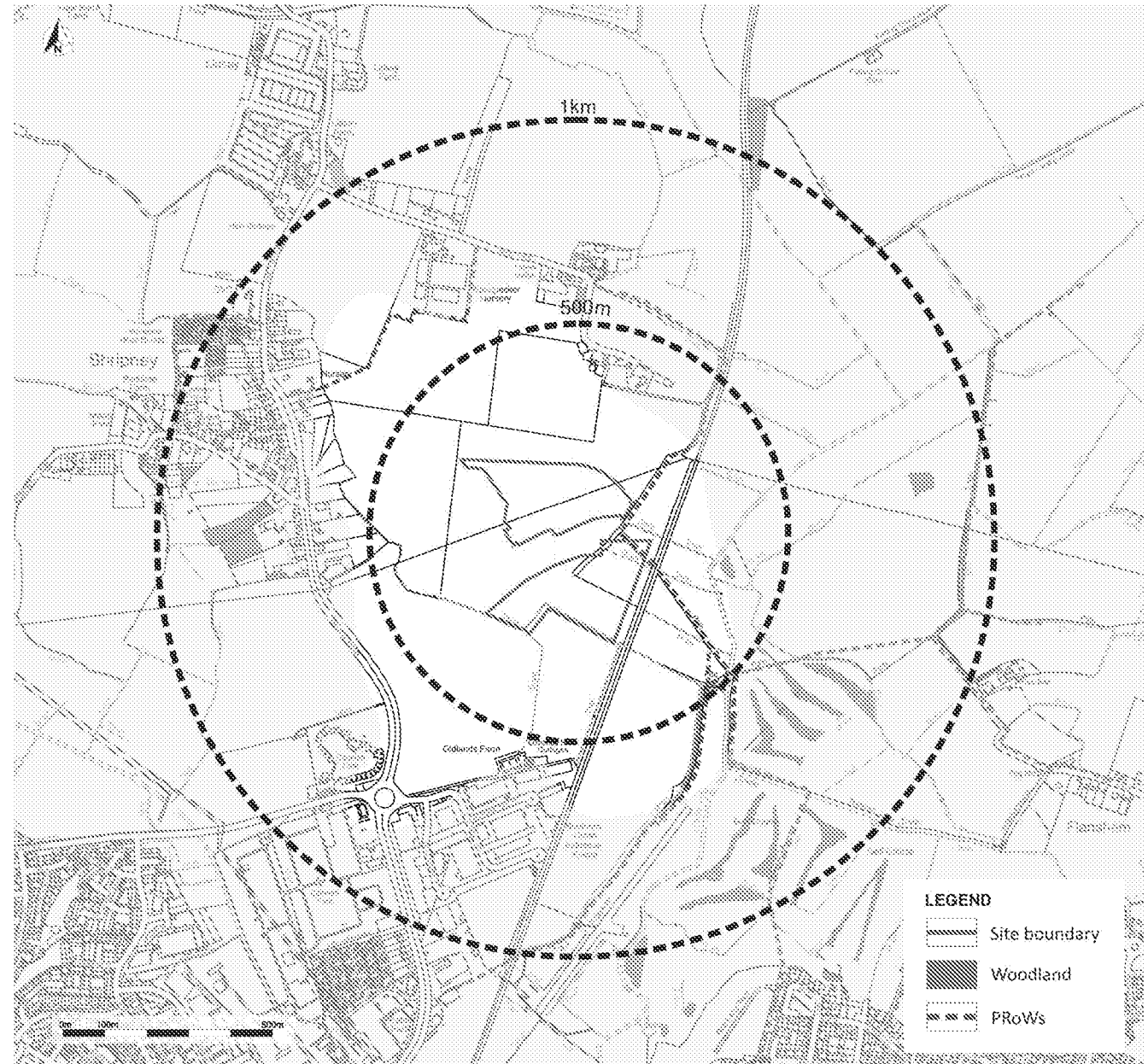


Figure 05 - Study Area

1.5 Key Issues

- 1.5.1 In terms of landscape and visual impacts the key issues relate to:
- Impacts upon the local character through loss of key characteristic features and introduction of urban forms within the landscape;
 - Changes in views from receptors in the study area; and
 - Potential increase in scale and mass of the urban boundary.

1.6 Scope

- 1.6.1 This assessment has been set out as follows:

Guidance & Policy

- A description of the methodologies and techniques applied throughout the assessment;
- Understanding of the relevant landscape related policies and guidance and their bearing on the proposals; and
- Identification of other resources used within the assessment.

Baseline

- 1.6.2 An assessment of the existing baseline through desktop analysis and site visits identifying significant landscape elements within the wider area including

context, character and views into and out of the site from key vantage points;

- An assessment of key features within the site, including their quality and influence upon the sites character; and
- Identification of the extent and range of potential receptors and views.

Predicted Effects

- Description of the likely effects of the proposals on landscape elements/features; character; and views into and out of the site from the principal viewpoints.
- Mitigation measures that should be employed to avoid, reduce or remove significant adverse impacts; the residual effects that will remain; and measures that are being provided in compensation for effects that cannot be effectively removed or that will enhance the application site beyond its existing condition.

2 OVERVIEW

2.1 Methodology

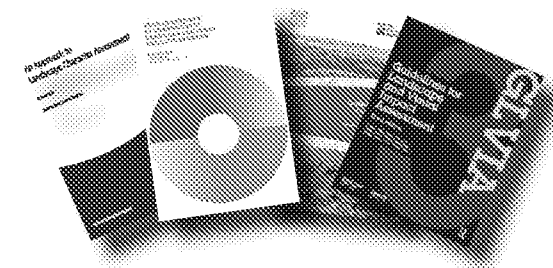
- 2.1.1 While intrinsically linked, landscape and visual appraisals (LVA's) are essentially separate procedures. It is often the case that an impact on one will give rise to or be related to an impact on the other. The assessment process relies on a combination of objective and subjective judgment

through evaluating quantitative and qualitative data and it is fundamental to the credibility of the work, therefore a structured, consistent and recognised approach is used.

- 2.1.2 The assessment has been undertaken by fully qualified, trained and experienced landscape professionals using techniques and best practice guidance in accordance with the following guidelines:

- 'Guidelines for Landscape and Visual Impact Assessment' - Landscape Institute & the Institute of Environmental Management and Assessment, 2013 (Third edition);
- Landscape Character Assessment Guidance, (2002), Countryside Agency in conjunction with Scottish Natural Heritage;
- Photography and photomontage in landscape and visual impact assessment – Landscape Institute Advice Note 01/11; and
- An Approach to Landscape Character Assessment - Natural England October 2014.

- 2.1.3 A full methodology including assessment techniques and criteria are given in **Appendix A**.



2.1.4 In assessing the visual impact from the different receptor groups, views have been predicted through a combination of site visits and cross section analysis. Where possible a photograph has been taken that represents a view from locations of the receptor groups. However, this is limited to public views where access is freely available.

Representative Viewpoints (RVPs)

2.1.5 Have been chosen to provide a representation of the potential views from different types of receptors where significant effects are likely to occur.

2.2 Policy Context

2.2.1 This section has been structured to provide an overview of national, regional and local landscape policy considered relevant to the location and nature of the proposed development, and that has been considered as part of the landscape parameters. An assessment of the policy implications is included with the Planning Statement, submitted under separate cover.

2.2.2 Table 3 below sets out all landscape policies which are specifically relevant to the redevelopment of the site. Relevant extracts from the regional and local policies are available in **Appendix B** to the rear of this document.

2.2.3 A brief summary of the current policy context is outlined after the table, and illustrated in Figure

Table 3 - Relevant Policy

Level	Policy
National Planning Policy Framework March 2012	Section 7 – Requiring Good Design
	Section 10 - Meeting the Challenge of Climate Change, Flooding & Coastal Change
	Section 11 – Conserving And Enhancing The Natural Environment
Arun District Council Local Plan 2003	Policy GEN7 The Form of New Development
	Policy GEN9 Foul and Surface Water Drainage
	Policy GEN11 Inland Flooding
	Policy GEN12 Parking in New Development
	Policy GEN15 Cycling and Walking
	Policy GEN18 Crime Prevention
	Policy GEN21 Renewable Energy
	Policy GEN23 The Water Environment
	Policy GEN33 Light Pollution
Published Local Plan (2011-2029) - To replace the Local Plan once adopted	Policy SP6 Strategic Employment Land Allocations
	Policy DM 6 enterprise@BognorRegis
	Policy SP 16 Design
	Policy DM 17 Aspects of Form and Design Quality
	Policy SP 17 Adapting to Climate Change
	Policy SP 21 Transport and Development
	Policy DM 36 Development and Biodiversity
	Policy SP 26 Water
	Policy DM 39 Sustainable Urban Drainage Systems
	Policy SP 27 Quality of the Environment
	Policy DM 44 Light Pollution

National

2.2.4 The National Planning Policy Framework (NPPF) provides the overall framework for planning policy in England and is inherent in the preparation of local and neighbourhood plans. The NPPF has been developed to follow the approach of the 'presumption in favour of sustainable development' and sets out a series of policies that provide the underlying principles of the Government's view of sustainable development, based on three factors:

- An economic role – contributing to building a strong, responsive and competitive economy;
- A social role – supporting strong, vibrant and healthy communities;
- An environmental role – contributing to protecting and enhancing our natural, built and historic environment.

2.2.5 The NPPF does not change the statutory status of the Development Plan as the starting point for decision making. Proposed development that accords with an up-to-date Local Plan should be approved however policies and strategies of the NPPF should be a material consideration when determining applications.

Regional

- 2.2.6 West Sussex developed a Structure Plan for the period 2001-2016. Although it currently has no formal status in the statutory planning system, it remains the strategic policy statement on development.

Local

Arun District Local Plan - Adopted April 2003

- 2.2.7 The current adopted version of the Arun District Council Local Plan covers the period up to 2011. The Secretary of State (SoS) granted consent for many of the policies in the Local plan 2003 to be saved under the provisions of the Planning and Compulsory Purchase Act 2004. These saved policies are valid until the Submission Local Plan is fully adopted or the policies are no longer compliant with national planning policy.

Published Arun District Local Plan 2011-2031 Not yet adopted (PLPP)

- 2.2.8 The Local Plan and supporting documents were submitted for independent examination in January 2015. Policies from the proposed Local Plan have been referenced to ensure that the proposals will be in line with future policy once adopted.

2.3

Supplementary Planning Documents (SPD)

- 2.3.1 There are currently no relevant adopted Supplementary Planning Guidance (SPGs) or Documents (SPDs).

2.4

Policy In Relation To The Site

- 2.4.1 The influence and inclusion of the identified policies within the design process have been summarised below. Potential impacts have been described in 5.3.

Section 7 - Requiring Good Design

- 2.4.2 National Policy Section 7 requires development to respond to opportunities to improve the existing quality and character of an area with considerable weight being given to innovative and outstanding design that will raise the existing standards within the locality.
- 2.4.3 High quality and inclusive design should be a primary consideration, above visual appearance and architectural design; however the proposals should reinforce and reflect local distinctiveness and avoid potential impacts upon sensitive or valued landscape features.
- 2.4.4 It is proposed that elements identified by the various consultants which positively contribute to the existing character, biodiversity, features and quality of the site and its surrounding areas

have been used to develop the scheme and landscape strategy. These assessments will be used to identify opportunities for enhancement and improvement in quality. The main aspects considered in the development of the parameters are:

- Existing landscape features;
- Drainage;
- Public Open Space;
- Biodiversity; and
- Visual and sensory amenity.

- 2.4.5 The layout will be tested against the principles of Local Plan Policies (LPP) GEN7 and GEN15 and Published Local Plan policies (PLPP) SP6, DM17, SP21, DM39.
- 2.4.6 The layout will be tested against the principles of Secured by Design Commercial and therefore accord with LPP GEN1.
- 2.4.7 The provision of high standards in both the landscaping, layout and quality of these spaces and facilities will be further developed as part of the landscape strategy, Illustrative Landscape Masterplan and Design and Access Statement in accordance with local policy.

Section 11 – Conserving and Enhancing the Natural Environment

2.4.8 The site does not contain any national, regional or locally designated landscape or features.

2.4.9 When determining planning applications the following principles for conservation and enhancement of biodiversity should be applied, these include:

- Refusal of development that causes significant harm that cannot be adequately mitigated and, as a last, resort compensated;
- Provide opportunities to incorporate biodiversity in and around the development;
- No loss or deterioration of irreplaceable habitats including ancient woodland and veteran trees, unless the development clearly outweighs the loss.

2.4.10 An ecological assessment has been carried out as part of the assessment process and used to influence the design strategy.

2.4.11 The design will evolve around the strategy that all sensitive landscape and biodiversity features are retained and significant enhancement and opportunities are provided. Whilst consideration is given towards biodiversity, this assessment will identify the value, quality and condition of these features and their subsequent influence upon the landscape character and visual amenity of the site and wider character.

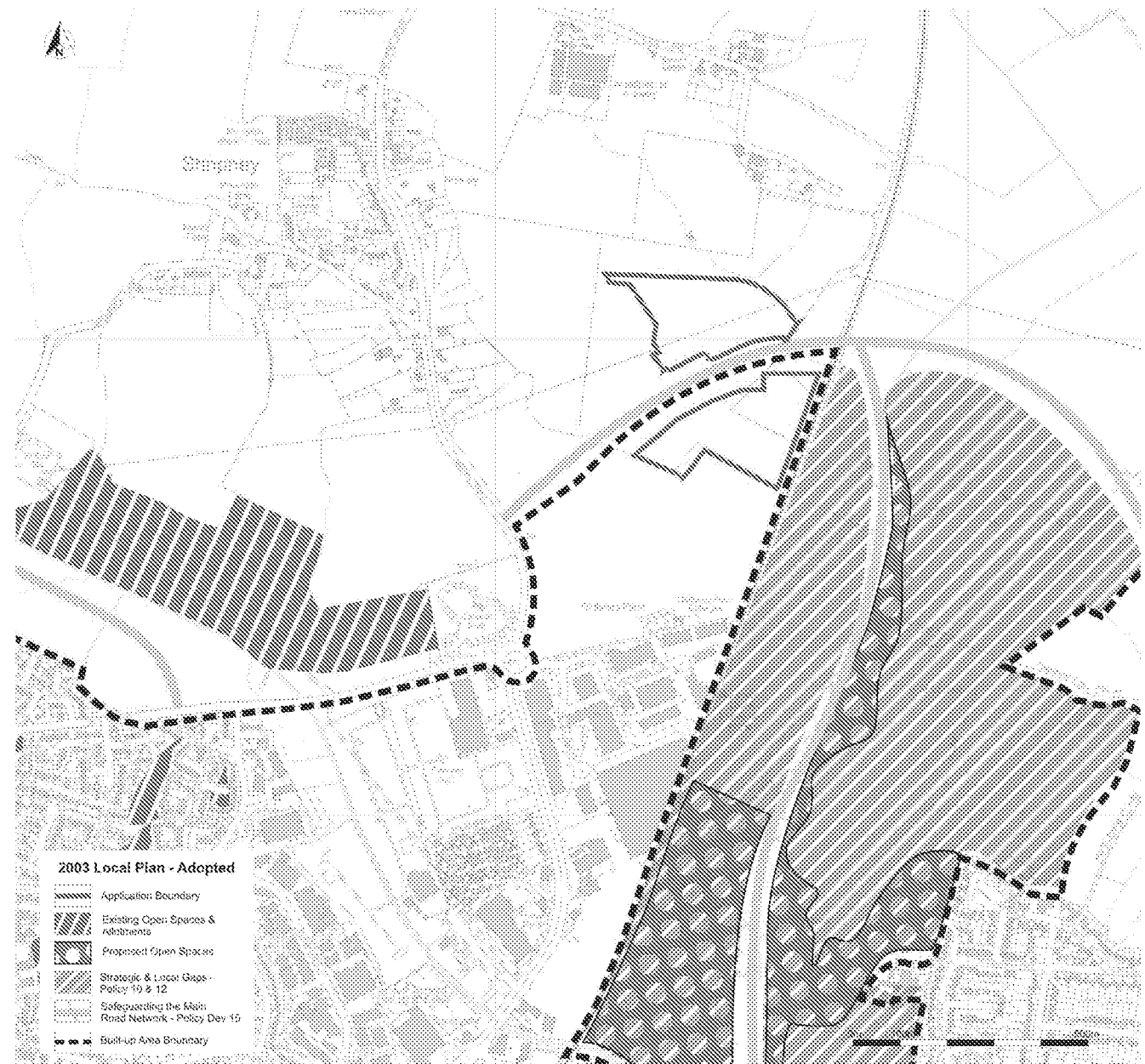


Figure 06 - Planning Policy (Adopted)

2.4.12 This accords with Local Plan Policies GEN7 and Published Local Plan Policies DM 17 and SP27.

2.4.13 The potential impacts upon lighting will be considered in accordance with LPP GEN33.

2.5 Other Technical Documentation

2.5.1 In addition to the adopted policy and site assessment the following documents and consultants reports have also been used in preparation of a suitable landscape and development strategy:

- BS 5837:2012 - Trees in relation to design, demolition and construction. Recommendations, BSI, Published 30 April 2012;
- Tree Survey and Constraints Plan.
- Ecological Appraisal - Aluco Ecology Ltd, April 2015.

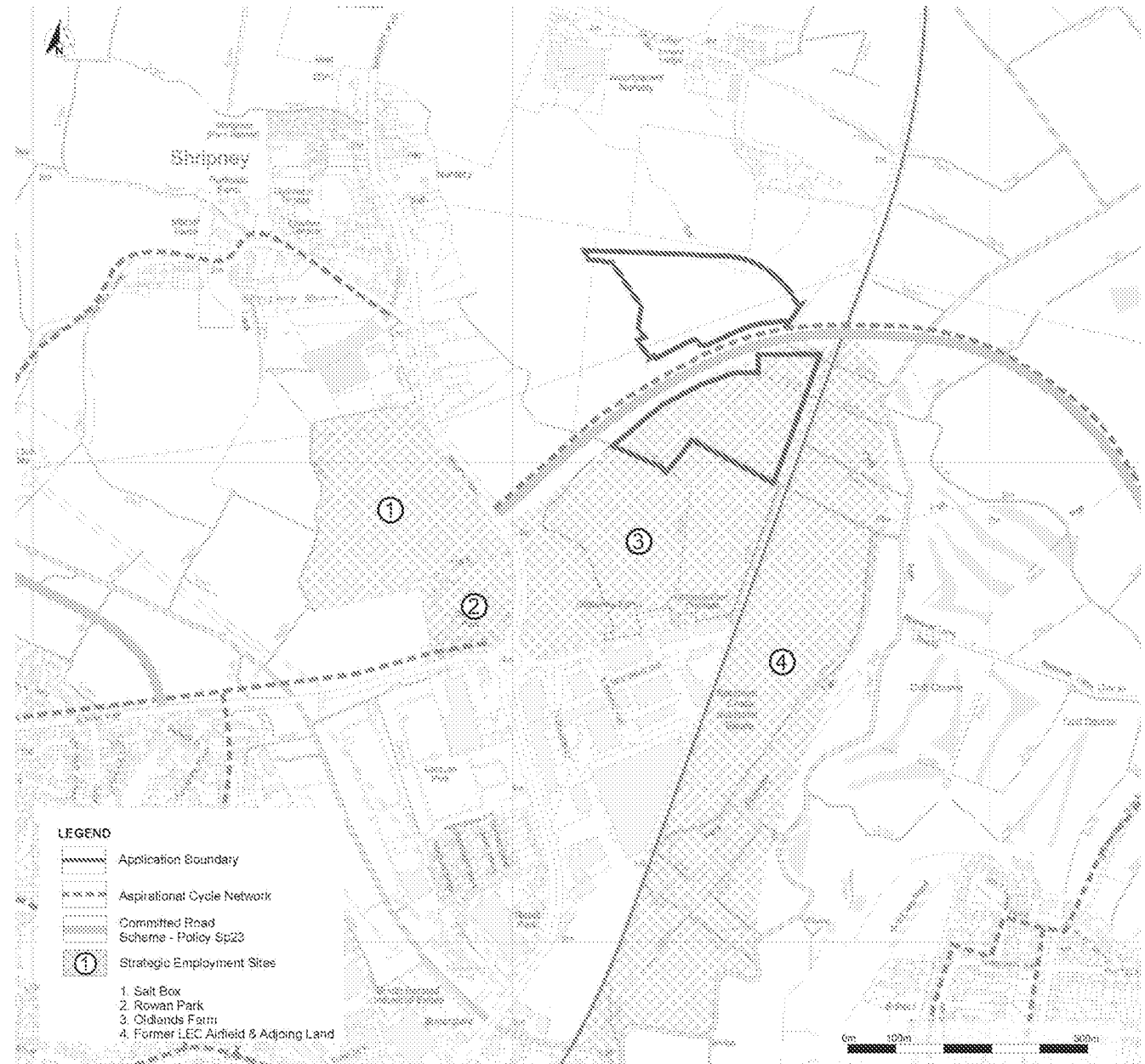


Figure 07 - Planning Policy (Local Plan 2011-2031 not yet adopted)

3 BASELINE ASSESSMENT

3.1 Statutory Designations

Landscape

- 3.1.1 There are no national or regional designated landscapes or features within or immediately adjoining the site.
- 3.1.2 The site lies within 6km of the South Downs National Park (formally the Sussex Downs Area of Outstanding Natural Beauty - AONB). The 2008 EIA and 2013 LVIA identified that potential impacts upon the National Park were negligible to the long distance.
- 3.1.3 There are no features within the site that are identified as having any significant landscape, cultural historical or ecological potential. The quality and condition of features within the site is discussed in detail in section 4.2.

Cultural and Historical

- 3.1.4 The site does not contain any international or nationally designated historical or cultural designations. There are no visual, cultural or physical links between the site and designations within the visual envelope.

Biodiversity

- 3.1.5 The site does not form part of any local designation for conservation, landscape or ecology.
- 3.1.6 The ecological appraisal identified a range of potential habitats that could support Skylark, Reed Warbler, Water Vole and Grass Snake, which have been

incorporated into the landscape strategy.

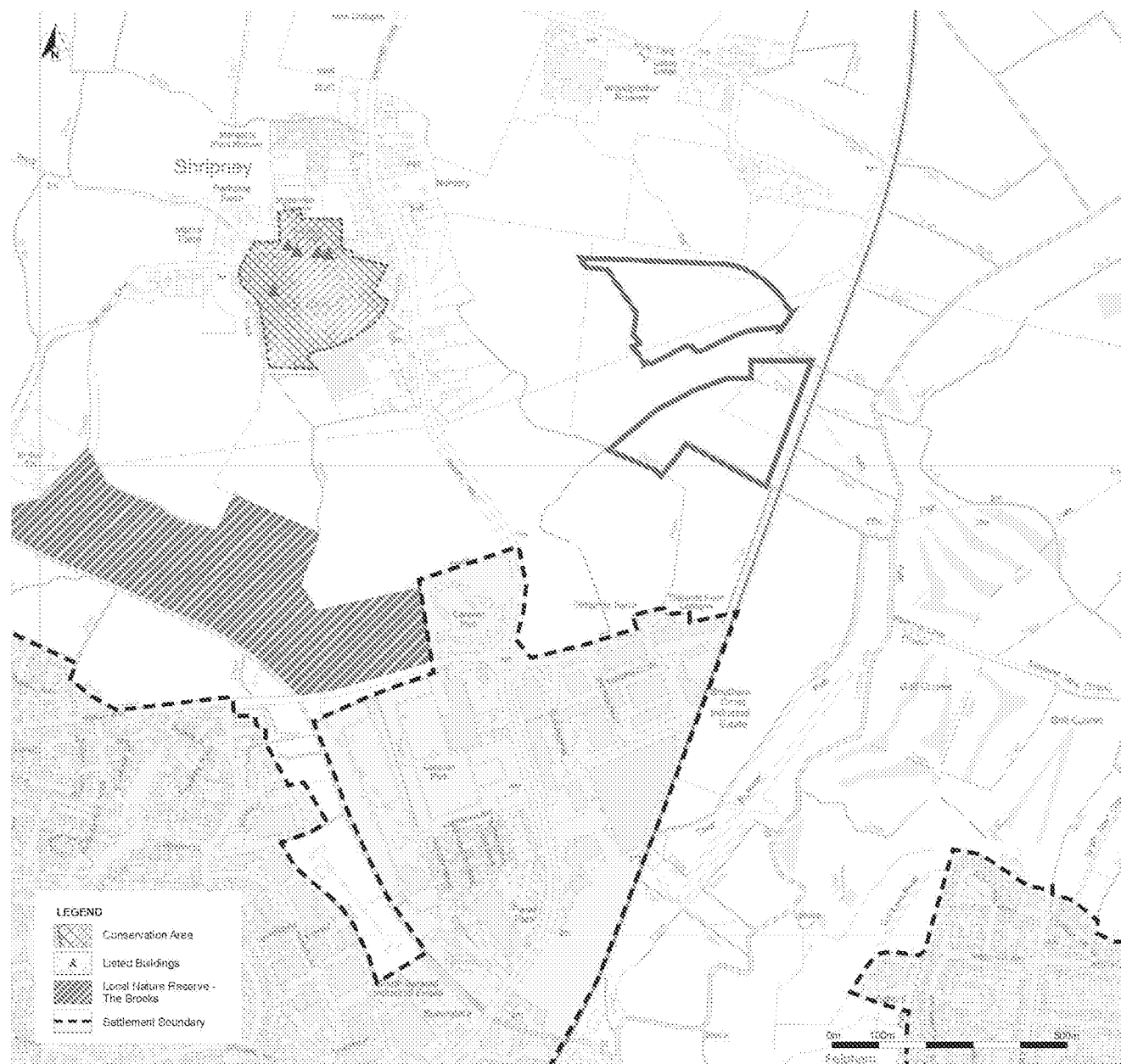


Fig 08 - Designations

4 SITE CONTEXT

- 4.1.1 The following descriptions give an overall outline of the landscape influences surrounding the site. The site itself is described in more detail within Section 4.2.

Topography

- 4.1.2 The site is located within the South Coast Plain, a broad swathe of low lying land that is crossed by meandering rifes (traditional drainage ditches).
- 4.1.3 The valley extents are defined by the South Downs National Park, 6km to the north.
- 4.1.4 The plateau the site lies on of around 6m gradually slopes southwards towards Bognor Regis and the English Channel (2.7km South).

Hydrology

- 4.1.5 The site is crossed by two drains which form the existing field boundaries and run in a west x east direction, feeding into the Lidsey Rife.
- 4.1.6 The Lidsey Rife is located approximately 150m east of the site separated from the site by the railway line.
- 4.1.7 The surrounding landscape is punctuated by meandering rifes and straight drainage ditches forming an extensive hydrological network.

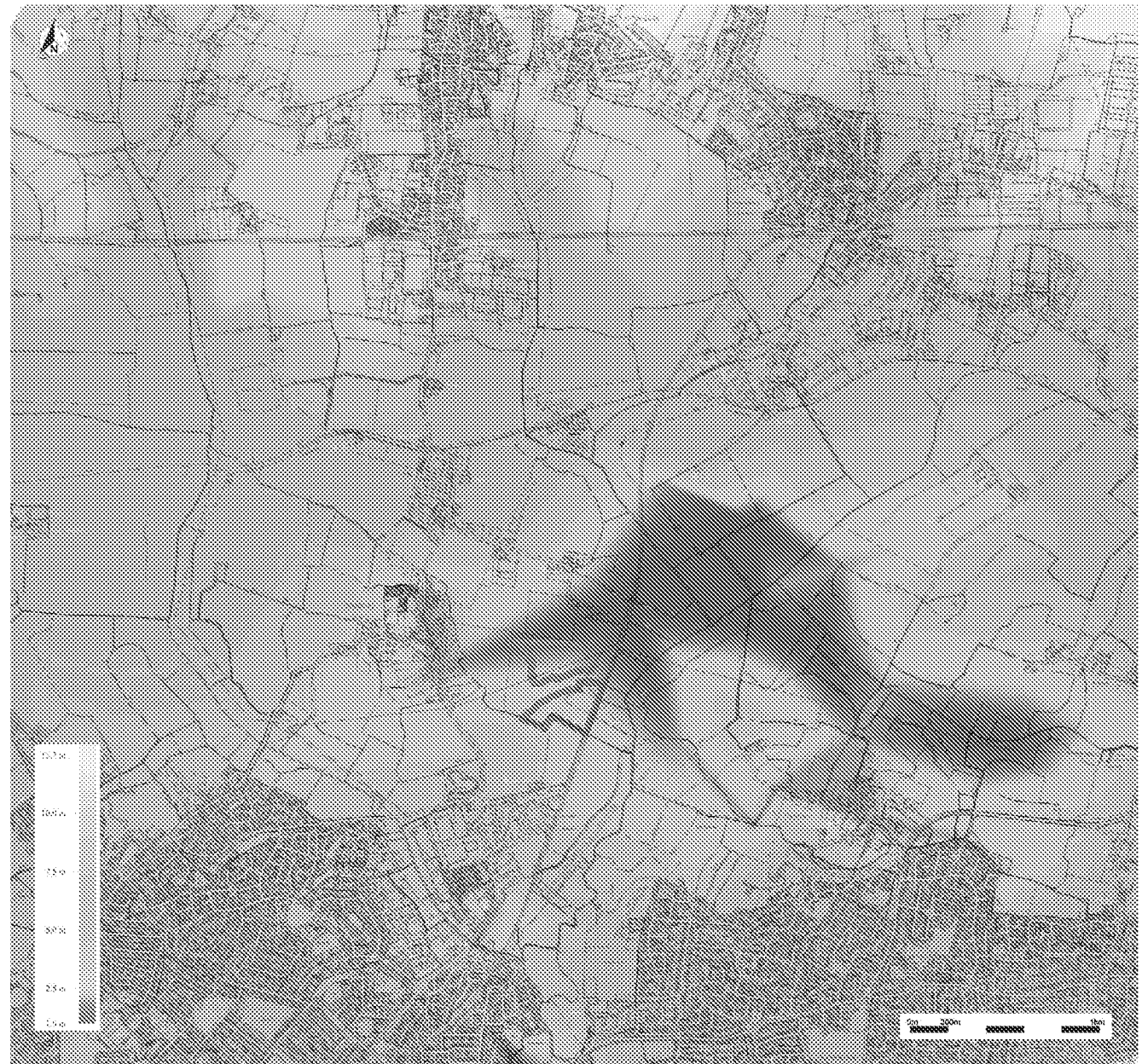


Figure 09 - Topography

Access

Roads/Railways

- 4.1.8 The A29 Shripney Road lies approximately 350m west of the site, which travels north from Bognor Regis to Westergate.
- 4.1.9 The proposed A259 BNRR (currently under construction). Once completed the road will link directly to the settlements of Felpham to the east and North Bersted to the west.
- 4.1.10 To the south of the site, Steyning Way runs eastwards from the A29/Rowan roundabout providing access to the private track to Oldlands Farm and cottages and the Southern Cross Industrial Estate.
- 4.1.11 The railway line runs along the sites eastern boundary, providing a link between Barnham and Bognor Regis, with the nearest station at Bognor Regis, 2.6km South.

Cycle Routes

- 4.1.12 There are no designated cycle routes with direct access to the site, however the unadopted local plan shows an aspirational cycle network running along the BNRR to the north of the site.

Public Rights of Way and other Pedestrian Access

- 4.1.13 Reference numbers relate to the number each footpath is given on the West Sussex County

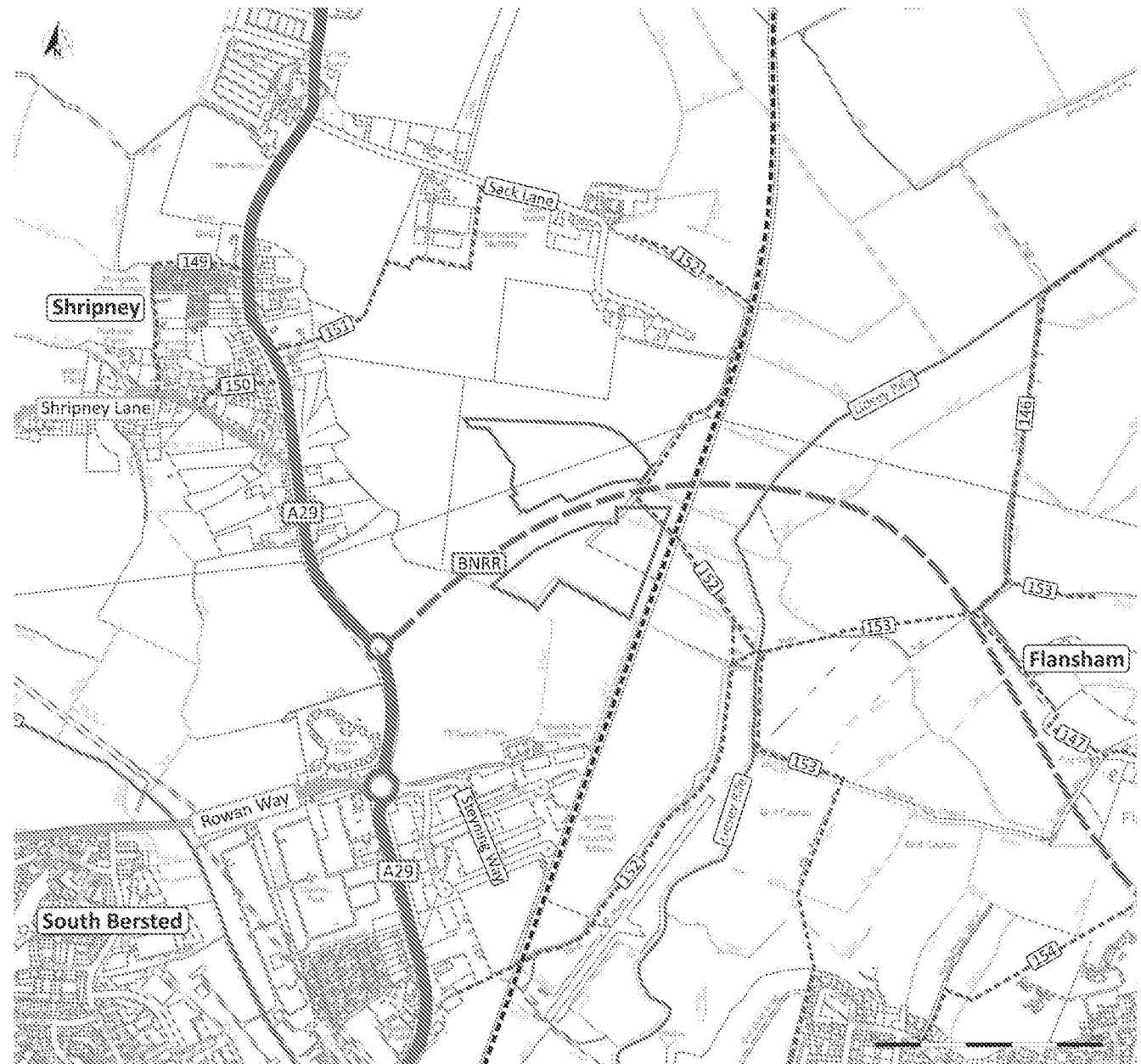


Figure 10 - Access & Movement

Council iMap website:

- 151 – A public footpath that runs from the A29 to Sack Lane north of the site;
- 152 – A public footpath that adjoins Sack Lane and runs in a west to east direction, then runs south towards Sack Barn where it has been temporarily closed during the BNRR construction. It is reopened the other side of the Barnham/Bognor Regis railway line where it follows a hedge boundary between an arable field and the former LEC air strip south of the site, re-crossing the railway line 530m south into the Southern Cross Industrial Estate.
- 153 – A public footpath that runs westwards connecting to footpath 152 then follows the Lidsey Rife running along a hedge boundary through the Bognor Regis Golf Club then into Felpham along Golf Links Road; and
- Pedestrian pathway along the A29.

Landcover/Landuse

- 4.1.14 The area is punctuated by a series of rifes which run towards the Lidsey Rife east of the railway track.
- 4.1.15 The open arable fields of Oldlands Farm continue north, towards the eastern outskirts of Shripney.
- 4.1.16 The current arable landscape is typically made up of large, low lying arable fields bounded by weak and gappy hedgerows, interspersed with occasional hedgerow trees.

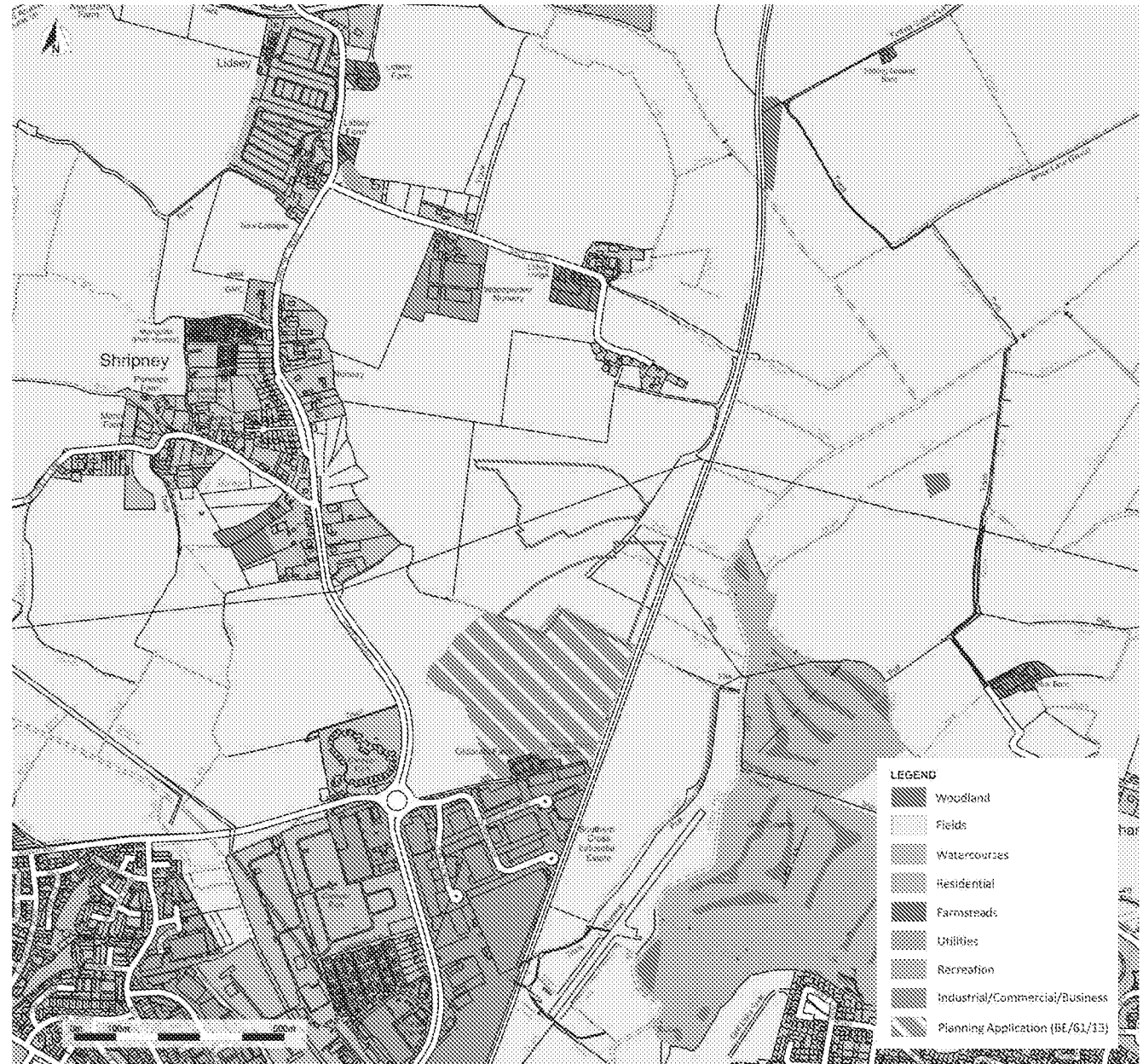


Figure 11 - Landuse

4.1.17 The land immediately east of the railway contains open farmland and the former LEC airfield. The remainder of open land located towards the village of Felpham (1.2km east/southeast) includes Bognor Regis Golf Club, smaller pasture and arable fields and school playing fields. The golf club landscaping provides a significant increase in tree cover within the landscape context, the remaining tree and hedgerow planting defining various tributaries of the Lidsey Rife.

4.1.18 Bognor Regis Retail Park is located to the southwest of the A29/Rowan way roundabout, and consists of several large scale retail units, fast-food restaurant and car parking 600m southwest of the site.

Settlement and Built Form

4.1.19 The village of Shripney is located 500m northwest of the site and straddles the A29, further north are the villages of Woodgate (2.6km), Westergate (3.7km), Eastergate (3.8km) and Barnham (3.2km).

4.1.20 The eastern boundary is defined by the Barnham/Bognor Regis railway line and is slightly elevated to the adjacent land.

4.1.21 To the south lies the Southern Cross Industrial Estate comprising large scale industrial warehouses, buildings, offices (Use Classes B1-B8) and a fast food restaurant.

4.1.22 The only individual settlement within this area

is Hoe Farm and Hoe Barn located 920m east, directly north of Felpham.

4.1.23 Bognor Regis Retail Park screens all views of the Riverside Holiday Park, a static caravan and leisure complex which lies to the west and south of the Retail Park.

4.1.24 The development at Rolls Royce lies directly south of the site and is currently under construction, this contains two large warehouse units with associated yard and parking.

4.1.25 Beyond the Southern Cross Industrial Estate the railway line crosses in a diagonal direction northeast to southwest, acting as a definite boundary between industrial development of Bognor Regis and open farm land to the east.

4.1.26 Within the wider area south of the site includes South Bersted Industrial Estate (1.2km), residential development of Whitfield Close (1.3km), and Bognor Regis railway station (2.6km).

Aesthetic and Perceptual

4.1.27 The immediate context is heavily influenced by major transport links and large scale industrial/commercial development.

4.1.28 The wider landscape forms part of an uncomplicated pattern of land use and development, defined by the local transport and drainage networks.

4.1.29 The context in which the site is experienced is dominated by the low lying topography and boundary vegetation, limiting experiences beyond a local level.

4.1.30 Further south of the site the context becomes distinctly more urban.

4.1 Landscape Character

- 4.1.1 Landscape character is defined as the distinct pattern or combination of elements that occurs consistently in a particular landscape and makes it different and unique from one place to another. It is how we perceive the interaction of a number of aspects recognised as the earth sciences, historical and cultural influences, biodiversity, visual and sensory qualities, which all combine to create local distinctiveness and a sense of place. Landscape Character Assessment (LCA) can be undertaken at a number of scales from national level through to local or site level.
- 4.1.2 A desk study revealed that the following Character Assessments were applicable to the site and the surroundings:

Table 4 - Landscape Character Assessments

National			
National Character Areas (NCA)	126: South Coast Plain (NE525)	2014	
Regional & Local			
The West Sussex Landscape Character Assessment (WSLCA)	SC9 Chichester to Yapton Coastal Plain	2003	
A Strategy for the West Sussex Landscape	South Coast Plain	2006	
Regional & Local			
Arun District Landscape Character	L1b - Large-scale open arable, L2 - Medium/small-scale arable	2006	

NCA (2014) - 126 South Coast Plain

- 4.1.3 This covers a linear swathe along the coast from Southampton to Brighton and is defined to the north by the South Downs National Park.
- 4.1.4 The relevant key qualities for the area are reiterated within the WSLCA, a copy of the NCA is included within the Appendix. The character area is considered moderate in sensitivity.

The West Sussex Landscape Character Assessment (2003) - SC9 Chichester to Yapton Coastal Plain

- 4.1.5 The assessment further refines NCA126 into fourteen character areas. The site lies within the 'SC9 Chichester to Yapton Coastal Plain' Landscape Character Area. The area covers a broad swathe from the urban boundary of Bognor to Chichester to the northwest and just south of Arundel to the northeast.
- 4.1.6 The key aspects of this LCA relevant to the site and surrounding area are:
- Low lying flat open landscape;
 - Meandering riles and straight drainage ditch systems, with associated unimproved grassland and edged by reed beds;
 - Large-scale arable farming and market gardening. Extensive farms with both traditional and modern farm buildings and silos;
 - The relatively open character of much of the area

allows long views so that village church towers are important landmarks in views;

- Frequent urban fringe influences of horse paddocks, light industry and disused airfields, with busy minor and major roads;
- The urban fringes associated with Bognor are particularly obvious, with sporadic urban development in suburban settlements of Tangmere, Barnham, Yapton and Westergate; and
- Few trees or hedgerows, partly as a result of Dutch elm disease, from the 1970s and the Great Storm of 1987 and overall high quality agricultural land, although, where they do exist, they form prominent features.

4.1.7 The assessment and identified key landscape and visual sensitivities have resulted in a series of Land Management Guidelines, those which are relevant to the site and its allocation are:

- Maintain and strengthen field boundaries such as hedgerows and shelterbelts;
- Link up existing remnant hedgerows and tree lines to re-establish coherent field boundaries and wildlife corridors;
- Establish landscape management plans for urban edges, notably Bognor Regis, to enhance the distinction between the urban and rural landscape;
- Establish new vegetation features by the planting

- of hedgerows and tree clumps in field corners and along roadsides, especially those approaching settlements;
 - Encourage the production of a colour and design study for new and existing agricultural and industrial buildings;
 - Encourage bold tree planting associated with large agricultural buildings, glasshouses and industrial buildings to attempt to assimilate them into the landscape more satisfactorily;
 - Maintain and enhance the landscape and biodiversity of rife and other existing habitats. Re-profile banks and encourage more diverse flora by lengthening clearance cycles; and
 - Enhance the visual prominence of rife through the establishment of waterside vegetation features.
- 4.1.8 The assessment does not give an evaluation to the sensitivity of the landscape but using the Using the criteria set out within the assessment methodology the landscape character area is assessed as moderate sensitivity.

A Strategy for the West Sussex Landscape (October 2005) - South Coast Plain

- 4.1.9 The Landscape Strategy was undertaken on behalf of West Sussex County Council, in partnership with the adjoining councils and statutory members. This has provided a countywide Landscape Strategy based on the

five NCA character assessments covering the West Sussex landscape. The document outlines 5 strategic objectives and translates these into a series of County-wide Landscape Guidelines for dealing with the likely changes. In terms of the development these relate to:

- Landscape Guidelines for commercial and industrial development including rural diversification;
- Conserving and increasing hedgerows and shaws;
- Conserving river environments, ponds and other waterbodies, wetlands and coastal habitats; and
- Improving the rural fringe.

4.1.10 These are included in **Appendix C**.

Arun Landscape Study - Landscape and Visual Amenity Aspects of Development Choices in Arun District 2006-2026

4.1.11 This was produced to help inform the Local Development Framework process, and provides an assessment of the physical and environmental constraints on open countryside and in identifying its capacity to accommodate future development.

4.1.12 The site is split between two of the identified Landscape Character Types (LCT); L1b Large-scale open arable and L2 - Medium/small-scale arable.

4.1.13 L1b - Large Scale open arable which is considered to have weak/remnant hedgerow structure in places with few mature trees and provide opportunities for long views to downs to north.

4.1.14 The site assessment concurs with the following description of the LCT L2:

- Intensive arable farmland;
- Medium-small fields across relatively flat or gently undulating landform;
- Field boundaries include ditches, fencing, hedges; and
- Greater sense of enclosure as compared with large-scale arable farmland (L1).

4.1.15 Using the LCTs, Landscape Character Areas (LCAs) were identified, describing further unique areas related to a specific place. Although covering a large proportion of this district, the site was not included.

4.2 Site Character and Features

Topography and Geology

4.2.1 The site itself is largely flat, falling from 2.60m AOD along the northern boundary to 0.89m AOD in the northeastern corner.

4.2.2 A number of drains run across the site in a south easterly direction where levels often drop to 0.3m AOD.

Land Use

4.2.3 The site is currently an arable field with a number of ditches running in an easterly direction towards the Lidsey Rife.

4.2.4 A linear belt of scrub willow and occasional Oak trees follow the ditch on the northern boundary.

4.2.5 The remaining ditches are identifiable by the low level native scrub running either side.

Boundaries

4.2.6 The northern and western boundary make the perimeter of the on going works for the BNRR and are defined by wire fences.

4.2.7 The eastern boundary is defined by the slightly elevated Bognor/Barnham railway line. A small tree belt follows the line of the boundary with rough scrub underneath.

4.2.8 The southern boundary follows the application boundary of Oldlands Farm, with the northern elevation of Rolls Royce abutting the boundary.



Figure 12 - Site Topography

This will be planted with native hedgerow as part of the proposals. Within the site lies another ditch running east towards Lidsey Rife which is again identifiable by scrub running along each side.

Key Landscape Features

- 4.2.9 The site is currently made up of small arable fields, with the exception of the most northerly parcel used as pasture.
- 4.2.10 Significant features are restricted to a line of scrub running into the site from the northern corner along a drainage ditch.
- 4.2.11 The following descriptions are interpolated from the Tree Survey, Ecological Survey and site visit.

Table 5 - Key Landscape Features

Target Note	Description	Value/Condition	Sensitivity
1	12 & 14m high mature oak - Category C2/3	Low	Low
2	Pasture Field	Low	Low
3	14m high veteran Oak - Category A2/3	High	High
4	14m high mature oak - Category B2/3	Moderate	Moderate
5	Ditch with Overgrown Scrub	Low	Low
6	Railway line Scrub	Low	Low
7	Wet Watercourse	Low	Low
8	Mature semi-natural scrub	Low	Moderate

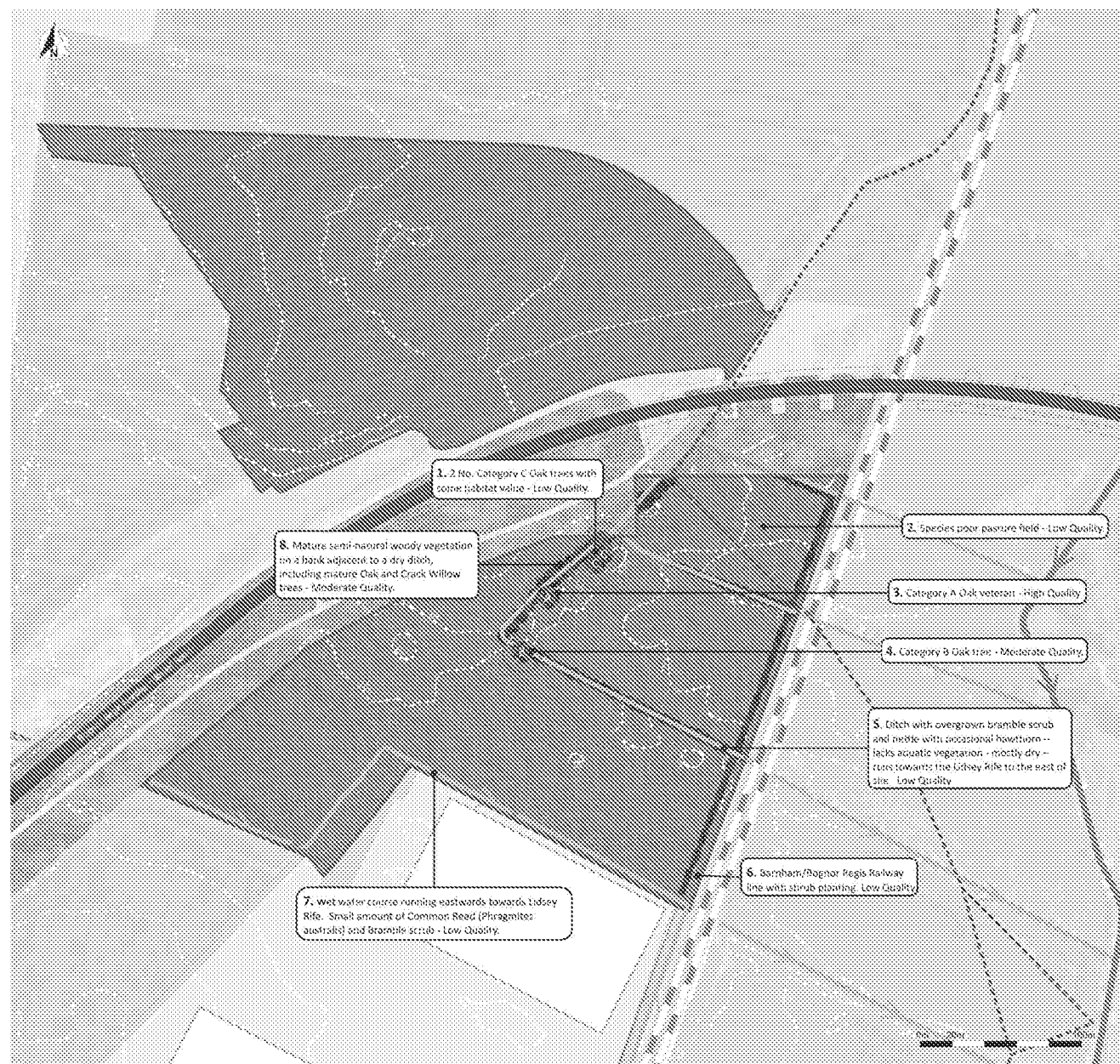


Figure 13 - Site Features

Aesthetic

- 4.2.12 The influence of the site upon the wider area is restricted through the low lying topography, and limited intervening vegetation and will be further isolated once Rolls Royce and the BNRR are completed.
- 4.2.13 The southern slopes of the South Downs National Park lie approximately 4.5km to the north, however the site is not identifiable due to the vast landscape being dominated by a well wooded landscape that serves to absorb and assimilate the villages that punctuate it.

Perceptual Experiences

- 4.2.14 Experience of the site is currently restricted to rail users along the eastern boundary
- 4.2.15 The construction of the BNRR and Rolls Royce and the vegetation running along the Barnham/Bognor Regis rail line has lead to the site becoming enclosed to the north, east and south.
- 4.2.16 Whilst the busy A29 lies approximately 250m southwest of the site and is an audible and visual detractor in the wider landscape, the road itself is partially screened from view and is only glimpsed from within the site.
- 4.2.17 The rail track is experienced from the site both visually and audibly.

Condition

- 4.2.18 It is typical of an urban rural fringe site whereby key characteristic features are missing or poorly

managed.

- 4.2.19 The agricultural use of the site has resulted in minimal landscape features that positively contribute to the site.
- 4.2.20 The site is not designated or perceived locally as a valuable landscape resource and has no known historical or cultural associations.
- 4.2.21 Overall, the landscape quality and condition of the site is assessed as low with the exception of one Category A and two Category B Oak trees.

Value

- 4.2.22 The following criteria have been assessed against Table 2 of **Appendix A**.
- 4.2.23 The value can apply to a combination of elements that contribute to the character of the landscape at national, regional and local level.
- 4.2.24 A landscape does not always need to fulfil all of the criteria however a thorough reasoning and assessment is given to justify the value.
- 4.2.25 The site does not lie within, influence or abut a designated or protected landscape. There are also no protected features noted within the immediate surroundings (**Low Value**).
- 4.2.26 The site does, however, contain some moderate quality features in need of management or improvement (**Low/Moderate Value**).
- 4.2.27 The landscape has a limited influence in local

views with minimal scenic value. Some visual links to locally identifiable features (**Low Value**).

- 4.2.28 The site is heavily influenced by major transport networks, although the BNRR is not currently fully functional, the construction work contributes to noise pollution and moderate or intermittent human activity (**Low Value**).
- 4.2.29 Cultural and historical associations do not relate to the landscape (**Low Value**).
- 4.2.30 No recreational access with limited public access (**Low/Moderate Value**).
- 4.2.31 Overall, the landscape value of the site is considered to be **low**.

Sensitivity

- 4.2.32 The site is generally well enclosed due to the construction of the elevated section of the BNRR to the north, the slightly elevated train line abutting the eastern boundary and the construction of Rolls Royce adjacent to a section of the southern boundary.
- 4.2.33 The site is currently identified in both the Local Plan and the Published Local Plan as an Employment Site.
- 4.2.34 The proposals will reflect those currently being constructed for Rolls Royce to the south and will be assimilated into the industrial nature of the surrounding area.
- 4.2.35 The sensitivity of the site is therefore considered low.

4.3 Visual Envelope

- 4.3.1 The visual envelope was used to inform a 'Study Area' in which potential receptors, such as Public Rights of Way and potential impacts upon the setting of cultural and heritage elements could be further identified.
- 4.3.2 Further site visits and analysis of features that might screen views such as local hedgerows, tree belts, buildings, orientation of the receptor and woodlands were used to further refine the visual envelope and are shown on Figure 14.
- 4.3.3 Overall, due to the influence of the large scale development and low/moderate landscape setting the quality of views experienced of the site are predominantly low.
- 4.3.4 The following photographs (RVP's) have been taken to present a record of views that are considered representative of potential receptors and a detailed description of the view accompanies each image.

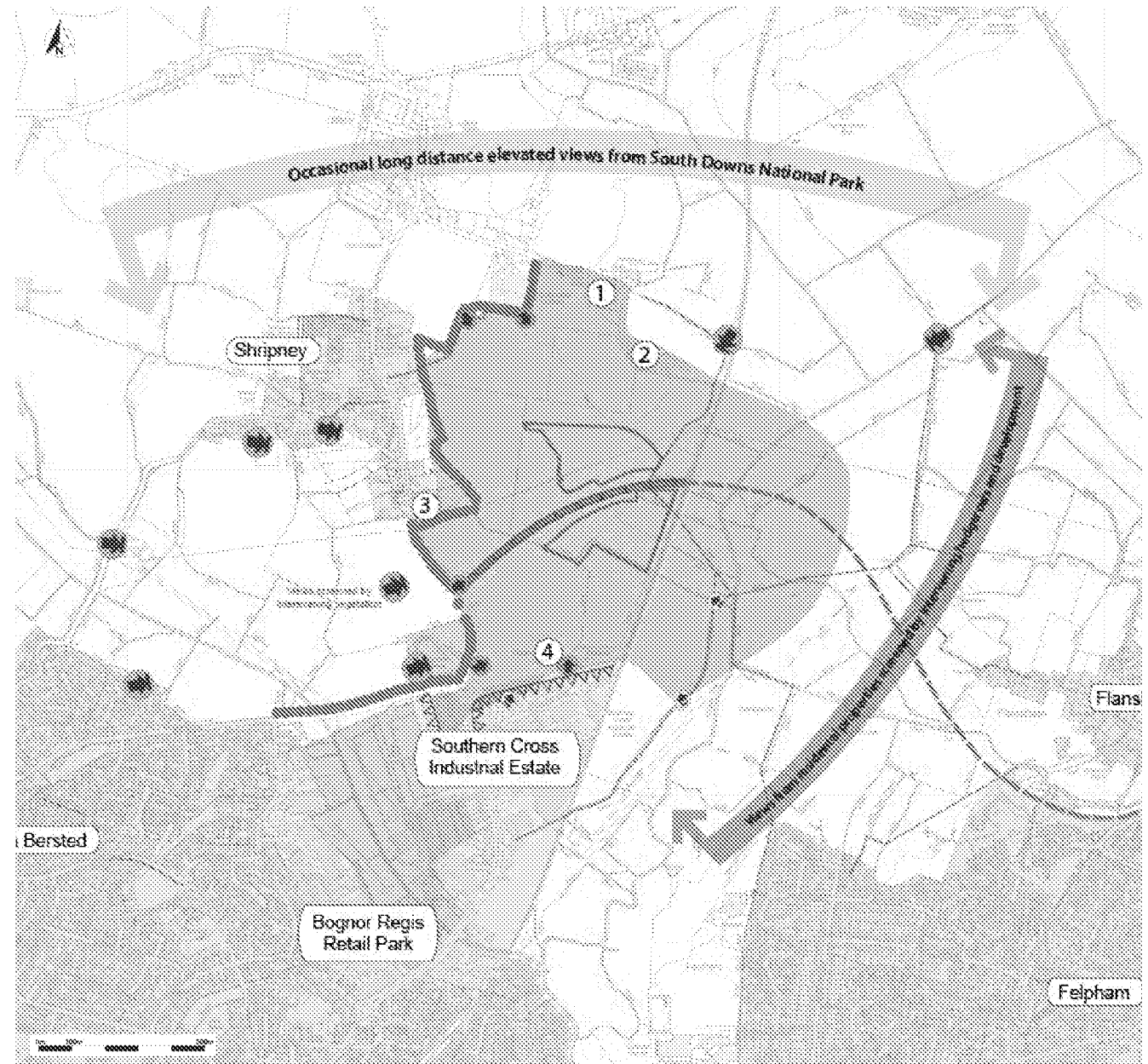
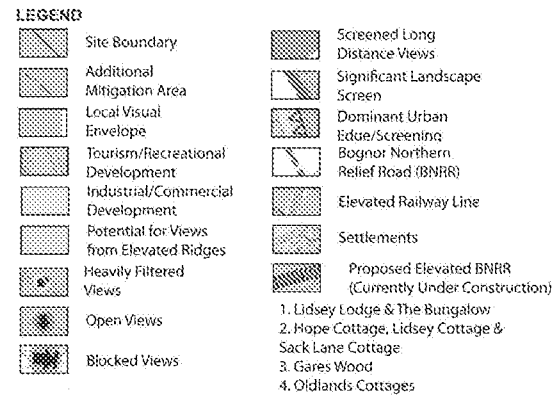


Figure 14 - Visual Analysis



Figure 15 - Photograph Location Plan

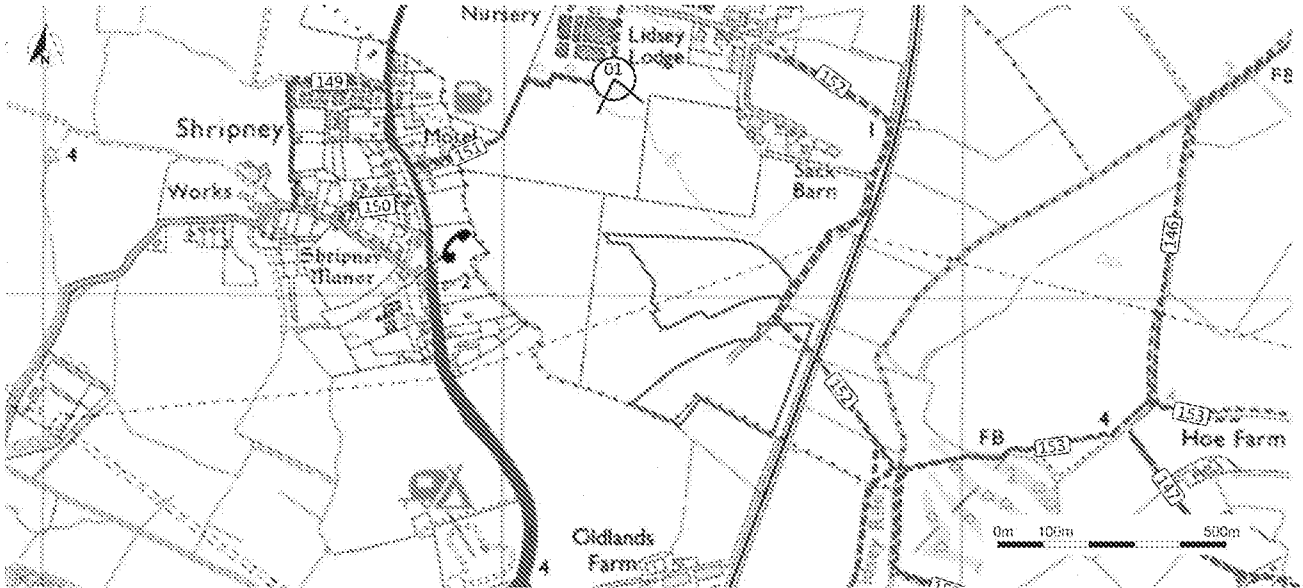
Oldlands Farm - Phase 2, Bognor Regis

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Views from the North

- 4.3.5 Due to the low lying topography of the area, potential receptors to the north are restricted to within approximately 650m of the site boundary.
- 4.3.6 Within this radii, receptors are limited to nearby properties along Sack Lane and local footpath 151 (RVP 01).
- 4.3.7 Open views are afforded towards the site from Public Footpath 151 as it runs south from Sack Lane. The construction of the BNRR viaduct and Rolls Royce form dominant features in the overall view. A mature tree belt forms the horizon between the two construction projects in an otherwise urban backdrop.



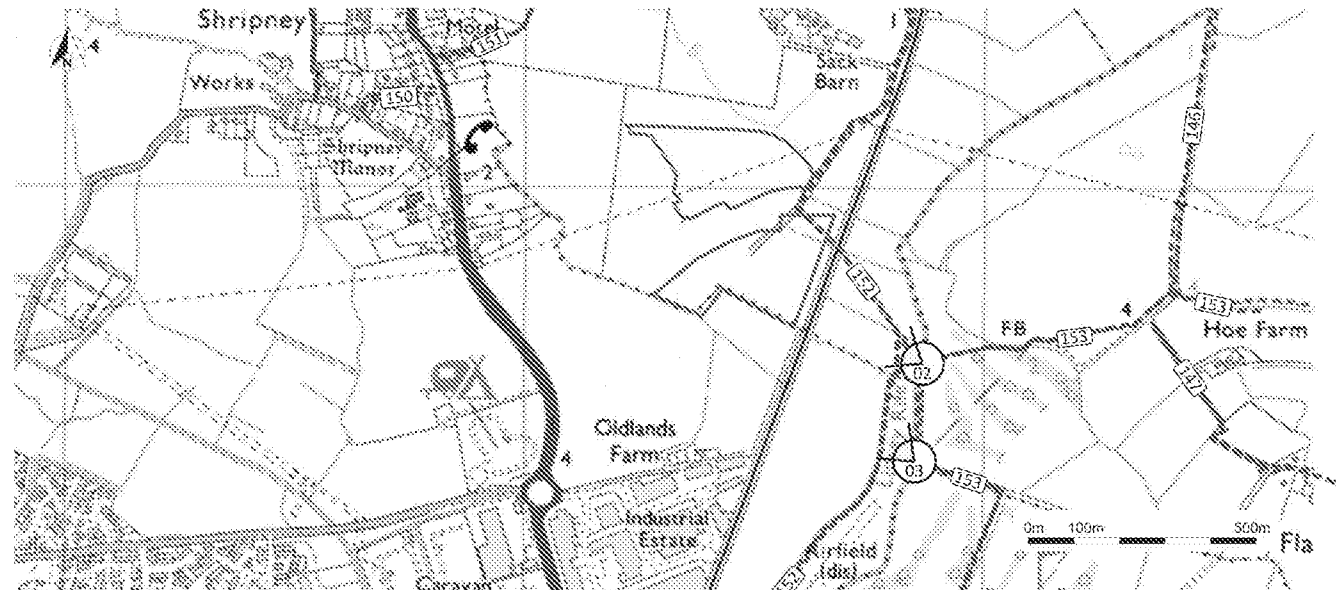
Photograph Location Plan - North



RVP 01 - View south from Public Footpath 151							
Distance From Site:	615m NNW	Horizontal Field Of View:	N/A	Camera Focal Length:	50mm equiv.	Camera Height:	1.6m
OS Grid Reference:	SU 94235 02460	Bearing at Image Centre:	160°	Date & Time:	27/03/15 - PM	Weather Conditions:	Overcast

Views from the East

- 4.3.8 Views from the east are limited to within 700m of the site due to the surrounding low lying topography and slightly elevated rail line. Views are heavily screened by intervening hedgerows and trees and scrub along the railway corridor.
- 4.3.9 Public Footpath 152 reopens on the southern side of the railway and runs southeast towards Lidsey Rife. Glimpsed views are available towards the site from this point, which become further filtered and eventually screened as the footpath runs south (RVP 02).
- 4.3.10 A network of footpaths run through the Bognor Regis Golf Course (275m SE) which are afforded glimpsed views over the railway towards the site. This is limited to a section of Public Footpath 153 which traverses the western boundary of the golf course before heading east towards the club house.
- 4.3.11 The development at Rolls Royce dominates the view within these receptors, which will be screened once associated mitigation has matured.
- 4.3.12 The horizon is largely formed by vegetation along both the railway and field boundaries. Further south along footpaths 152 & 153 the construction of the viaduct for the BNRR can be seen with the South Downs National Park glimpsed in the background (RVP 03).

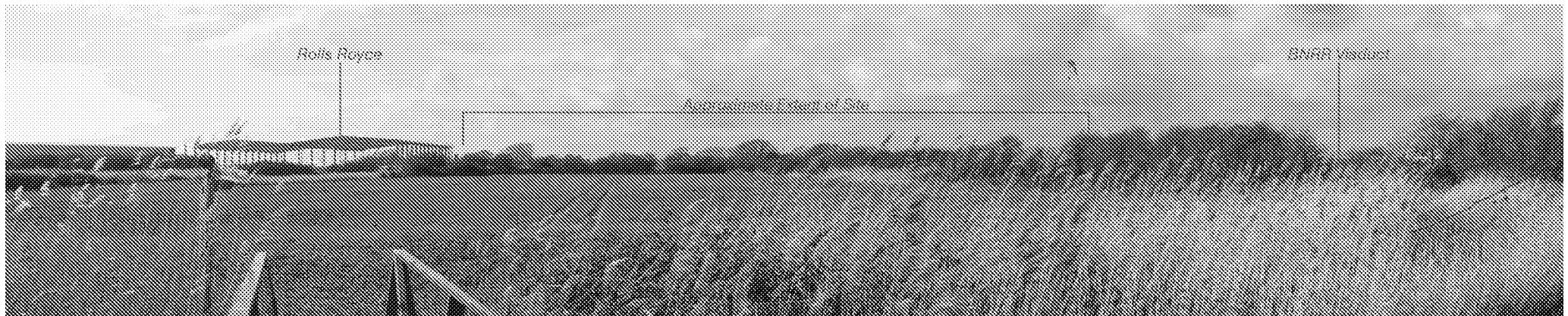


Photograph Location Plan - East

Oldlands Farm - Phase 2, Bognor Regis

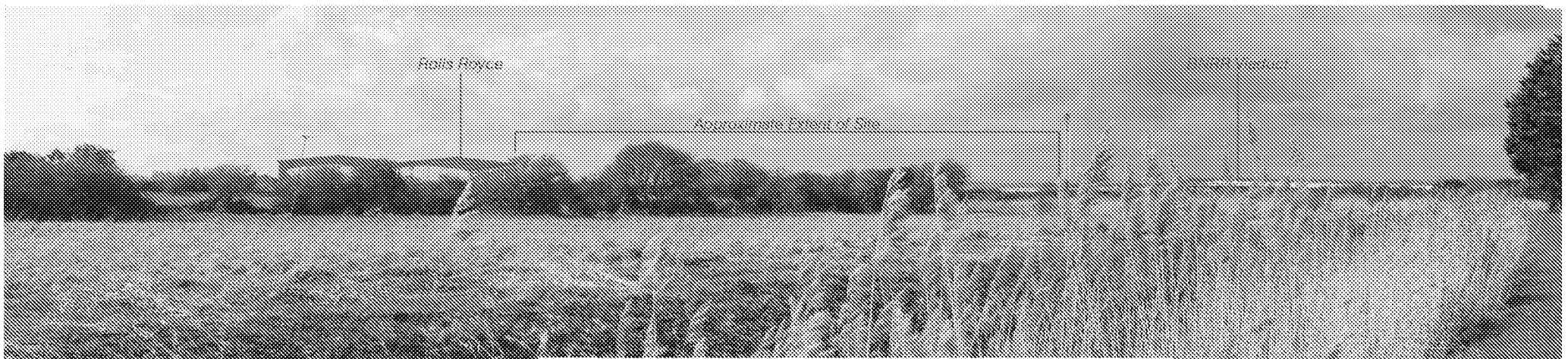
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RVP 02 - View west from Public Footpath 153 as it crosses Lidsey Rife

Distance From Site:	270m ESE	Horizontal Field Of View:	N/A	Camera Focal Length:	50mm equiv.	Camera Height:	1.6m
OS Grid Reference:	SU 94873 01616	Bearing at Image Centre:	305°	Date & Time:	27.03.15 - PM	Weather Conditions:	Overcast



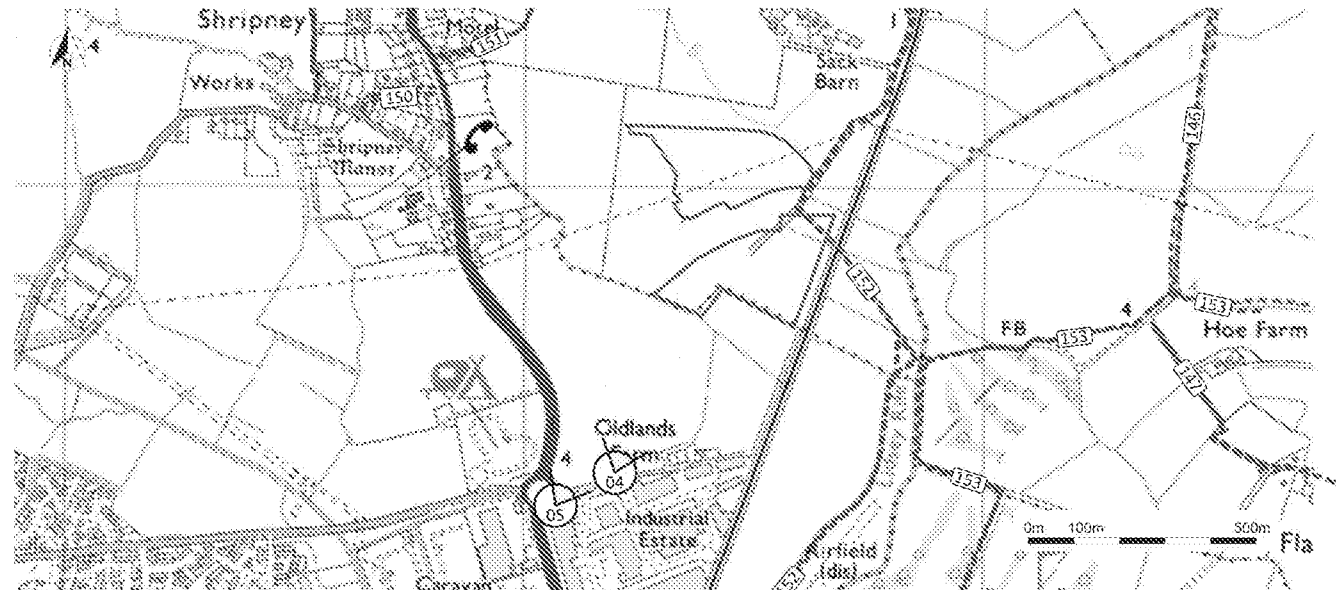
RVP 03 - View northwest from Public Footpath 153 within Bognor Regis Golf club

Distance From Site:	390m SE	Horizontal Field Of View:	N/A	Camera Focal Length:	50mm equiv.	Camera Height:	1.6m
OS Grid Reference:	SU 94860 01400	Bearing at Image Centre:	320°	Date & Time:	27.03.15 - PM	Weather Conditions:	Overcast

Representative Viewpoints - RVPs

Views from the South

- 4.3.13 Views from the south are generally well screened by the Rolls Royce development on the sites southern boundary.
- 4.3.14 There is potential for glimpsed views towards the western corner of the site from the access track to Oldlands Farm (RVP 04), however this will form a minor component with Rolls Royce dominating the view in the foreground.
- 4.3.15 Glimpsed transient views are available towards the sites western corner, which are framed by large scale development and/or mature tree belts either side and are limited to the section of the roads entering the Rowan Way/A29 roundabout. Prior to this the views are heavily screened by the urban boundary and trading estates (RVP 05).

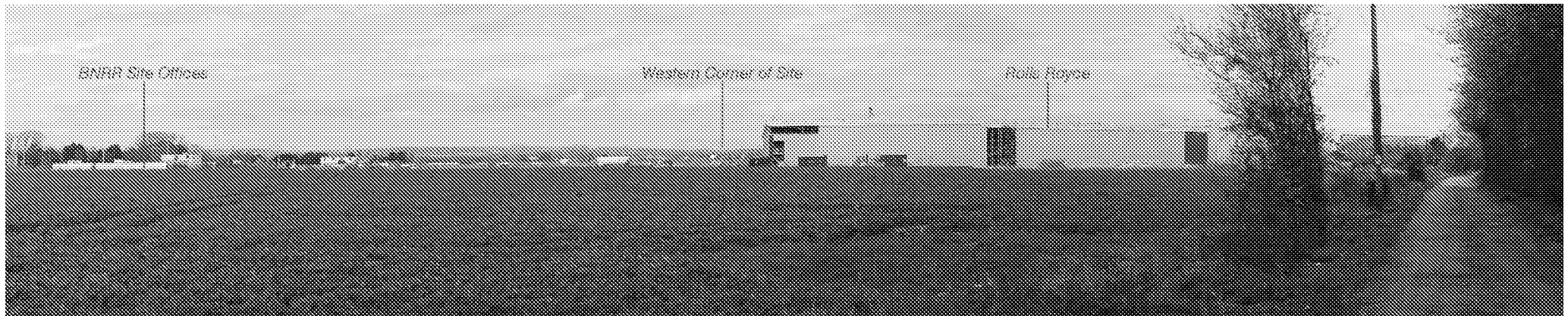


Photograph Location Plan - South

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RVP 04 - View northeast from access track to Oldlands Farm

Distance From Site:	400m SW	Horizontal Field Of View:	N/A	Camera Focal Length:	50mm equiv.	Camera Height:	1.6m
OS Grid Reference:	SU 94212 01358	Bearing at Image Centre:	25°	Date & Time:	27.03.15 - PM	Weather Conditions:	Overcast



RVP 05 - View east from roundabout on A29

Distance From Site:	500m SW	Horizontal Field Of View:	N/A	Camera Focal Length:	50mm equiv.	Camera Height:	1.6m
OS Grid Reference:	SU 94055 01283	Bearing at Image Centre:	35°	Date & Time:	27.03.15 - PM	Weather Conditions:	Overcast

Representative Viewpoints - RVPs

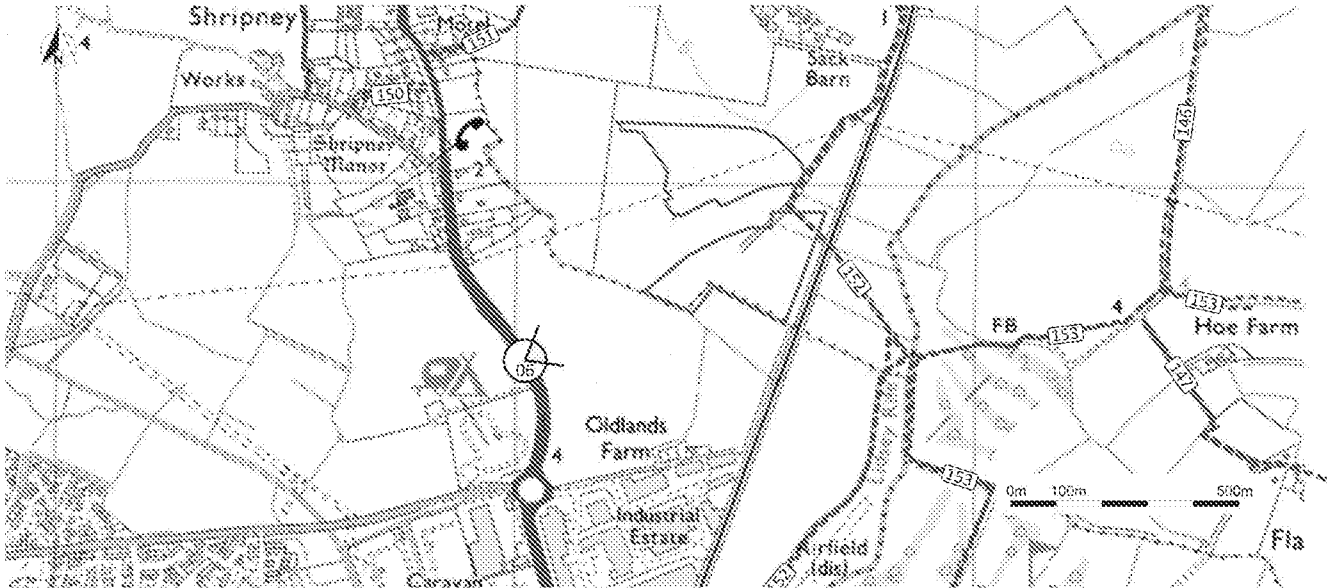
Oldlands Farm - Phase 2, Bognor Regis

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Views from the West

- 4.3.16 Views from the west are limited to the A29/Rowan Way roundabout and the section of the A29 heading north to Shripney (RVP 06).
- 4.3.17 The low lying topography and vegetation running along the A29 screen views further west.
- 4.3.18 There are open views towards the construction of the BNRR, viewed against the trees and properties along Sack Lane. The South Downs provide the horizon in the distance.
- 4.3.19 The development at Rolls Royce forms a dominant feature in the foreground, with the western corner of the site glimpsed. This will become screened once vegetation associated with the BNRR matures.



Photograph Location Plan - West



RVP 06 - View east towards site from the A29/BNRR roundabout							
Distance From Site:	315m W	Horizontal Field Of View:	N/A	Camera Focal Length:	50mm equiv.	Camera Height:	1.6m
OS Grid Reference:	SU 94021 01608	Bearing at Image Centre:	75°	Date & Time:	27.03.15 - PM	Weather Conditions:	Overcast

Summary of Potential Visual Receptors

4.3.20 The following table provides a summary of the predicted receptors within the visual envelope.

Table 6 - Potential Visual Receptors

Ref	Location	RVP	Receptor	View Description	View	Sensitivity
Residential						
01	700m N	01	Properties on Sack Lane	Middle distance views across flat topography towards site and FCA. Views restricted to upper storeys by intervening garden boundary/treatments.	✓	Moderate
02	415m N	01	Sack Lane Cottages, Lidsey Cottage, Hope Cottage		✓	Moderate
03	925m E		Properties along Hoe Lane located on western boundary of Flansham	Longer views towards site and FCA are restricted by intervening vegetation and raised railway line.	X	Moderate
04	840m E		Hoe Farm off Hoe Lane, Flansham		X	Moderate
05	300m S		No's 1 & 2 Oldland Cottages	Views screened by development at Rolls Royce	X	Low
Public Rights of Way						
06	650m NW		Public Footpath 150	Views are restricted by existing residential properties, hedgerows and mature trees.	X	Low
07	615m NNW	01	Public Footpath 151	The flat topography provides middle distance views towards the existing Southern Cross Trading Estate which along with Rolls Royce and the treed railway line forms the horizon. The views are open due to the lack of intervening hedgerows and trees between the footpath and the site.	✓	High
				Closer open views are available towards the FCA.		
08	0m	02	Public Footpath 152	Views are currently restricted to limited glimpses of the roof lines of Southern Cross Industrial Estate by intervening hedgerows and the vegetation along the railway track in the foreground. The section of footpath to the north is temporarily closed until the construction of the BNRR is complete - it will then pass beneath the road and through the northern corner of the site.	✓	High
09	230m SE	03	Public Footpath 153	Views are restricted to the development at Rolls Royce and limited glimpses of the roof lines of Southern Cross Industrial Estate by intervening hedgerows and the vegetation along the railway track in the foreground.	✓	High
10	825m NNW		Public Footpath 296/1	Views screened by sloping topography and intervening vegetation.	X	High
11	1.4km NNW		Public Footpath 200/1		X	Moderate
Others						
12	525m WSW		Local Nature Reserve	Views towards the site are screened by the intervening dense hedgerow and mature trees.	X	

Ref	Location	RVP	Receptor	View Description	View	Sensitivity
Roads/Transport Routes						
13	325m W	06	A29 (Section between Shripney and A29/Rowan Way roundabout)	Glimpsed transient view for many motorists on one of the principal approach roads into Bognor Regis. Views either open or glimpsed due to intermittent hedgerow boundary.	✓	Low
14	530m SW		Rowan Way	Views screened by intervening development at Rolls Royce.	X	Low
15	380m S	04	Oldlands Farm Track	Potential for glimpsed views towards the western corner of the site from the access track, a large proportion of the site is screened by Rolls Royce.	✓	Moderate
16	430m SSW	04	Steyning Way		✓	Low
17	705m N		Sack Lane	Middle distance views towards site with upper part of buildings at Southern Cross Trading Estate visible. Hedgerow along Sack Lane screens majority of views.	✓	Low
18	20m N	06	A259 Proposed Northern Relief Road	Open view for many motorists and few pedestrians.	✓	Low
19	0m E		Barnham - Bognor Regis Railway		✓	Low

5 CONSTRAINTS AND OPPORTUNITIES

5.3.1 In summary, the assessment has identified the following opportunities and constraints that should be carefully considered to protect the existing character of the site, the visual amenity of potential receptors and provide benefits to the surrounding landscape.

5.1 Constraints

5.1.1 The assessment has identified the following landscape and visual constraints that should be carefully considered and are shown on the adjacent plan (Fig 16).

- Category A & B trees Root Protection Areas (RPAs);
- Wet ditch running along northern boundary;
- Buildings should be set back from the railway abutting eastern boundary; and
- 10m buffer to Public Footpath 152, which crosses the northern section of the site.

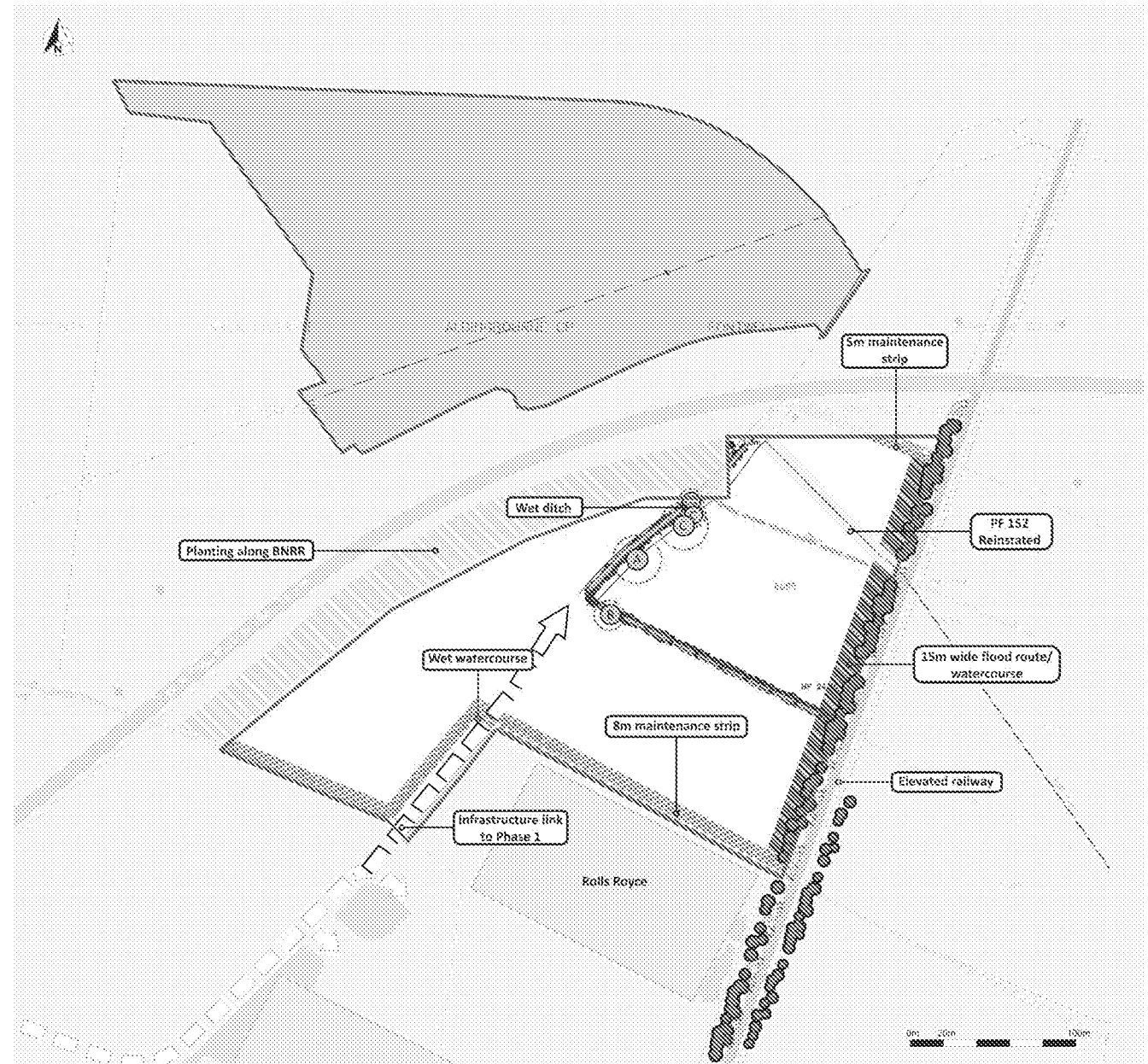


Figure 16 - Constraints

5.2 Opportunities and Landscape Strategy

- 5.2.1 The strategy has derived from the identified constraints, potential impacts and desire to deliver a scheme that will assimilate into the landscape and not stand alone as an isolated pocket of development.
- 5.2.2 Mitigation is the process or the measures that are either designed in or recommended to be incorporated into the proposals that are necessary in order to avoid, remove or reduce significant adverse effects that might occur.
- 5.2.3 Avoidance mitigation for any significant effects should be the pre-requisite to any scheme design. In this instance the initial appraisal identified a series of opportunities and constraints that were used to develop a landscape strategy that informed the development layout.
- 5.2.4 Most development proposals will inevitably result in some landscape or visual impacts which cannot be avoided and it is how these effects are dealt with in the design response that normally determines the acceptability or not of the proposals. These will be identified through the assessment of predicted effects and additional measures recommended.
- 5.2.5 Compensatory mitigation are the measures to be undertaken to compensate for effects that cannot be satisfactorily mitigated by design alone.

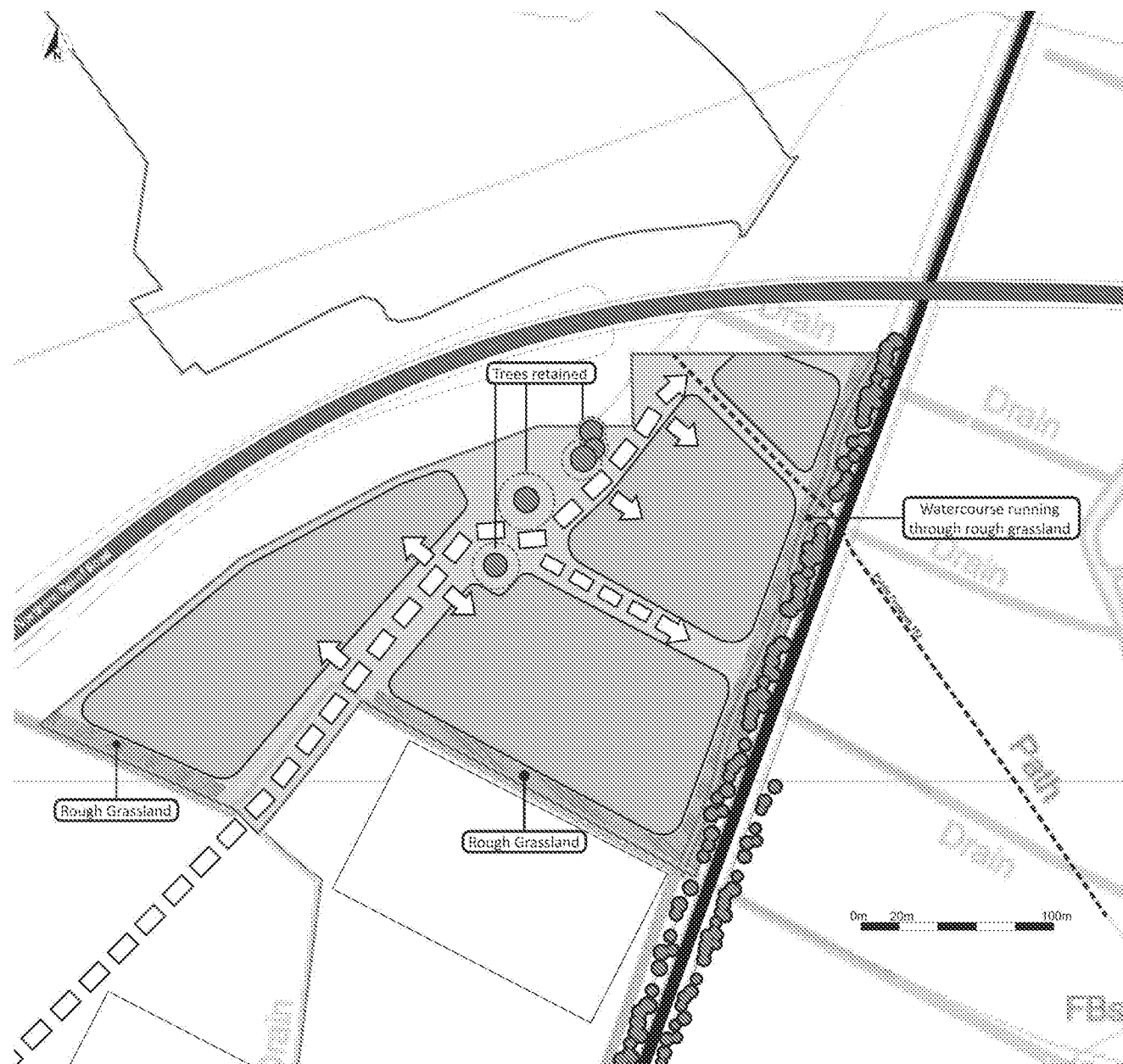


Figure 17 - Landscape Strategy

Designed in measures to avoid/prevent impacts:

- Use of Visual Analysis to identify sensitive receptors and design appropriately;
- Ensure that existing building heights are not exceeded in order to reduce visual impacts in surrounding views;
- Retain the existing quality features and habitats (GEN 9, GEN23, DM36, DM39 and SP27);
- Employ tree protection measures throughout the construction period to protect sensitive features and Root Protection Areas (RPA's); and
- Retain PRoW within site (GEN15).

Designed in measures to reduce impacts:

- Use of broadleaved native hedgerow planting and trees to provide green corridors through the site in order to integrate the development into the surrounding setting;
- Use of muted materials palette in keeping with surrounding local vernacular and character (GEN7 & SD7);
- Provision of drainage strategy or SUDS to manage additional surface water run off; and
- Ensure attractive and appropriate landscape setting, with enhancement of key landscape features.

Enhancement Measures

- Provide biodiversity opportunities within the site and improve ecological connectivity through enhancement of existing hedgerows and additional hedgerows and trees (SP16 and SP27).

6 SUMMARY OF PREDICTED EFFECTS

6.1 General

6.1.1 The development of the site will result in significant changes to the character of the site, however this will be in context of the Oldlands Phase 1 development and the BNRR, which isolates this site from the wider countryside.

6.1.2 The assessment is based on the mitigation measures included within the landscape strategy (shown on Figures 3, 4 and 17) being implemented as part of the construction period.

6.1.3 Impacts are described as being beneficial or adverse and occur either directly or indirectly and may be permanent or temporary in duration. Adverse effects on landscape character normally arise through characteristic features being directly lost as a result of the proposals (**landscape**), or by affecting the way in which we perceive the landscape with our senses (**visual and sensory**).

6.2 Policy & Designations

6.2.1 The illustrative masterplan has been designed to positively reflect the aims of LPP GEN7 and PLPP SP6, SP16 & DM17. Where this also relates to other policies these have been included in brackets.

6.2.2 The landscape strategy has evolved from a requirement to extend the quality of key features, mitigate any adverse impacts and incorporate the various aspects of the relevant policies.

6.2.3 The site lies within an allocated employment site with the remainder of the development area allocated for employment within the Submitted Local Plan. The proposals will fully accord with all of the relevant landscape policies.

6.3 Predicted Landscape Effects

6.3.1 Most adverse landscape impacts normally occur during the construction period and any potential beneficial aspects occur during the management of the proposals as new planting matures.

6.3.2 For the purposes of landscape impact evaluation the following definitions have been used to describe the significance.

Impacts on Landscape Features

- 6.3.3 Impacts upon trees and hedgerows have been reduced through design with buildings located outside of an 8m exclusion zone. During construction all features are to be protected with fencing to BS5837:2012 standards.
- 6.3.4 Sensitive water course features on the northeast and southwest boundaries will be protected and reinforced.

Impacts on Landscape Character

- 6.3.5 The site has been allocated as a Strategic Employment Site which would inevitably result in irreversible changes to the landscape character through the loss of arable fields.
- 6.3.6 The primary consideration of the landscape strategy has been to extend and reintroduce locally important landscape characteristic features to strengthen the existing low sensitivity baseline.
- 6.3.7 The external appearance of the site will provide a strengthened native landscaped framework that will provide a number of characteristic features that will help assimilate the proposals into the landscape.

6.4 Predicted Visual Effects

- 6.4.1 The visual impact significance is assessed using the methodology set out within **Appendix A** and is defined by the following criteria.

- 6.4.2 The following descriptions should be read in conjunction with the RVPs in Section 4 and have been chosen to provide a comprehensive narrative and representation of the full range of potential impacts.
- 6.4.3 The predicted impacts have been described in two stages, Construction and Operation.
- 6.4.4 Within the following descriptions all of the Construction effects described are temporary.

Construction

- 6.4.5 The construction period is not known at this stage but the site will be built out within a 4 to 5 year period.
- 6.4.6 Construction details are also not fully known at this stage, but they are likely to follow a standard building approach for a development of this scale and complexity. It is assumed the following key construction items are expected to form part of the construction changes for all phases of work:
- Site compound, incorporating several portacabins, temporary parking and site storage;
 - Delivery vehicles including low loaders, HGVs, tipper wagons, vans and cars;
 - Construction plant – large earth moving machinery, tracked and wheeled excavators and dumper trucks;
 - Cranes sufficient to lift materials to the ridgeline of the tallest building - a maximum height of 13.5m;

- Scaffolding; and
- Temporary lighting during winter months.

- 6.4.7 The visual nature of the changes vary during the construction period, dependent upon the phase of works being undertaken, stage of construction and building type. The stages of construction vary from structural formation, completion of façades and completion of the roofs. The scale of the visual effects during the latter periods of construction phases would be similar to that of the operational period, other than there would still be taller cranes, which could extend the visual disturbance over a wider area. However, visual construction effects are temporary in nature.
- 6.4.8 Vehicular movement should not be greater than during the operational period but will comprise larger vehicles for earthworks and delivering site materials.

Operation

- 6.4.9 The effects when compared to those of the construction period are primarily secondary impacts and will comprise:
- The appearance of the buildings;
 - People and vehicle movements;
 - Lighting impacts; and
 - Effects on the magnitude of views through proposed planting as it matures.

6.4.10 Impacts that relate to the changes in the level and quality of the view potentially change as the mitigation matures. It is assumed for the purposes of the assessment that the landscaping proposals will be completed within the first planting season following completion of the construction works. Therefore these have been assessed at Year 0 (site completion without mitigation to assess the 'worst case' scenario), and 5 and 10 years assuming that the planting is completed during the planting season following completion of the development. Where the typical views are similar in magnitude and impact these have been grouped together to avoid repetition.

6.4.11 The degree to which development might create visual impact in the landscape is influenced by a number of factors:

Landform

6.4.12 The low lying topography within the site and the immediate locality is key in restricting longer distance views.

6.4.13 Some modest ground modelling will be required within the site to achieve positive drainage through SUDS, raising of a large proportion of the development out of Flood Zone 3b and the construction of the FCA; however this will not be conspicuous or inconsistent with the surrounding levels.

6.4.14 The elevated BNRR (approximately 2.5m above

the surrounding levels) will provide a notable feature within the landscape but this will diminish as the associated planting matures.

Backdrop

6.4.15 The low lying topography and sparsely wooded landscape provide the opportunity for 'big sky' views to the west, north and east with minimal opportunities for development to be viewed against any significant backdrop.

6.4.16 The strong urban edge and large scale development immediately south of the site provide a backdrop in limited views from the north.

Landscape Scale

6.4.17 The potential for the site to accept such scale was assessed as part of the 2008 EIA resulting in its subsequent allocation as a Strategic Employment Site.

6.4.18 In terms of comparative scale the proposals will reflect the heights of the existing large scale urban development along the current A29 entrance to Bognor Regis. The buildings will be set within a landscaped framework that has been considered to provide comparative heights and setting to the built form.

6.4.19 Planting within the car parking and along the road hierarchy will provide breaks in the built form.

6.4.20 The larger of the buildings are to be located to the

eastern perimeter of the site next to the adjoining Rolls Royce Development which is of similar height and scale.

Vegetation Cover

6.4.21 The site does not benefit from significant native vegetation cover around its perimeter. The proposals will significantly increase the existing native vegetation cover within the site by setting the development within a strong landscape framework that reintroduces strong green corridors along the new BNRR, south and east boundaries and along the site main access corridors. The boundaries with the phases of Oldlands Farm have been treated to retain green and habitat corridors to link the native planting areas.

6.4.22 A comprehensive landscape scheme is being implemented adjacent to the BNRR which will compliment these proposals.

Seasonality

6.4.23 Winter views are often more exaggerated than those in summer after full leaf fall. Views into and out of the site remain fairly constant due to the lack of boundary vegetation or well maintained dense hedgerows.

6.4.24 The low lying topography and limited screening vegetation will mean the seasonality will have a negligible impact upon wider views during the winter months.

Lighting

- 6.4.25 The site is located against an existing well lit urban boundary which is further accentuated by the street lighting along the A29 and the junction with the BNRR.
- 6.4.26 Lighting proposals will be designed to incorporate best practice and reduce potential impacts upon the new development boundary, in particular in relation to bats and wildlife.
- 6.4.27 Lighting strategy will embody the following key principles to avoid over or unnecessary lighting.
- Lighting curfews;
 - Glare control – the floodlighting has been designed to minimise horizontal and vertical light spill onto surrounding areas by keeping beam angles of all lights below 70 degrees;
 - Low level bollard lighting to be used in low key pedestrian areas; and
 - Minimise sky glow by fitting baffles and deflectors.

Building Design

- 6.4.28 The buildings will be a maximum 13.5m high, and 10m along the BNRR and will be designed to provide a varying roof scape.
- 6.4.29 As an outline planning application there is only a limited amount of detail available at this point in time on the material specification. In order to

achieve BREEAM 'Very Good' the highest standard of materials are required promoting responsible sourcing and limiting their environmental impact.

7 CONCLUSION

7.1 Landscape

- 7.1.1 The proposals are considered to positively reflect the aims and aspirations of all the relevant landscape policy.
- 7.1.2 The site is currently low quality arable farm land with few landscape features of value. It is located in an area that is heavily influenced by main transport routes and the urban boundary of Bognor Regis.
- 7.1.3 Whilst inherently changing the existing character of the site, the proposals will reflect the development immediately to the southwest forming part of the Oldlands Farm Business Park.
- 7.1.4 The site is considered suitable to proposals without significant permanent negative landscape impacts.

7.2 Visual

- 7.2.1 The predicted zone of influence is very limited due to the low lying topography and surrounding development.

- 7.2.2 The tallest and largest buildings have been located within the area of the site which is considered to have the lowest visual sensitivity adjacent to the railway line and will not notably extend over the ongoing development at Rolls Royce, limiting significant views from the immediate surroundings.

- 7.2.3 The most sensitive views are experienced from PF 151 as it heads south from Sack Lane, however the context of the buildings within the overall panorama of the northern fringes of Bognor Regis and proposed planting along the BNRR will mitigate the impact of the development from these locations.

- 7.2.4 The most notable changes in the view will be available from a section of PF 152 when it reopens after the completion of the BNRR. The footpath has been set within a 10m wide green corridor with buildings facing towards it to improve natural surveillance.

- 7.2.5 The site is considered suitable to proposals without significant permanent negative visual impacts.

Oldlands Farm - Phase 2, Bognor Regis

Landscape & Visual Appraisal

Oldlands Farm - Phase 2, Bognor Regis

Landscape & Visual Appraisal

Daveco
Landscape
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APPENDIX A

ASSESSMENT METHODOLOGY AND CRITERIA

Oldlands Farm - Phase 2, Bognor Regis

Landscape & Visual Appraisal

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METHODOLOGY

The assessment has been carried out in three key stages:

- Desk study;
- Field and photographic surveys; and
- Analysis and evaluation.

The preliminary stages are aimed at building up a thorough understanding of the existing baseline conditions of the landscape and its resources. The latter stages analyse and evaluate the significance of predicted effects of the proposals taking account of the mitigation measures that have incorporated.

Desk Study (Baseline Data Collection)

A desk study was undertaken using Ordnance Survey maps, Landscape Character Assessments, topographic surveys, aerial photographs and sometimes cross sections of the landscape. These sources were examined for existing patterns and scale of landform, land cover and built development, giving guidance on the general landscape character of the application site and its surroundings.

For visual analysis, an approximate extent of visibility (visual envelope) and likely persons (receptors) potentially affected by the proposals are recorded for further analysis in the field.

Zones of Theoretical Visibility

The desk-based analysis cannot normally take full account of the effects of intervening vegetation; subtle changes in topography and influence of existing and recently built development.

GIS programming was used to create a Zones of Theoretical Visibility (ZTV) to provide an initial starting point in identifying

the potential study area.

The ZTV was based on a digital terrain model of the site and the surrounding area derived from Ordnance Survey Land-Form PROFILE height data. This dataset provides contours and spot heights which are derived from the OS 1:10,000 sheet series. The height data has a vertical accuracy of +/- 60cm on elevation points provided every five meters.

The development area of the site was inputted into the data at a height of 20m above the existing ground levels taken from the detailed site survey.

Substantial woodland areas were digitised from OS mapping and aerial photography. The heights of these woodland blocks and their screening potential were then assessed by a qualified arborist and inputted into the model. Further areas that were not surveyed were shown at a conservative height of 10m. Significant built up areas were also identified and shown at 8.5m in height. These were then set as obstructions and the ZTV re-run to provide a more realistic result for visibility.

The ZTV is shown on OS 1:25,000 base mapping and produced at a scale of 1:50,000.

These factors are subsequently checked in the field survey, providing, where feasible, both summer and winter months to establish a full understanding of seasonal views.

Field and Photographic surveys

A Pre-planning BS5837 Tree Survey is carried out at the beginning of the process to provide an understanding of potential landscape constraints. This is used, along with ecological studies and site visits to provide a landscape constraint plan and potential opportunities to be developed as part of the strategy.

The extent of the visual envelope identified in the desk study is checked by initially looking out into the landscape from

various locations within the application site and walking all footpaths and roads in the vicinity.

It is often the case that views from houses and places of work can only be predicted by looking towards the receptor from the application site and cross checking the view through section analysis. This process can be limited clearly as views are seen from ground level and may be available from elevated viewpoints such as upper floor windows. In these instances where sensitive views are being considered, professional experience and judgement are crucial and where doubts exist, are checked by cross sectional analysis.

Representative viewpoints are selected to represent the range of receptors and distances from which there will be a potential impact by the proposals. The photographs are taken from publicly accessible locations in suitable weather conditions using an SLR camera with the focal lens length set at 50mm (equivalent to 35mm film camera).

Photographs are taken following the Guidelines for Landscape and Visual Impact Assessment and The landscape Institute Advice Note 01/11 – Photography and Photomontage in Landscape and Visual Impact Assessment. Locations of the photograph are recorded using a GPS.

Preliminary layout proposals are tested to obtain an initial understanding of what aspects of the proposed development might be seen from sensitive receptors and what influence the landscape elements such as trees hedges and woodland might have in screening or filtering views. This information is then relayed to the architects as key constraints and opportunities plan and used to develop the masterplan.

Analysis and Evaluation

The assessment evaluates the possible effects on the existing landscape and visual resources of the area. Following the identification of these potential receptors the likely effects

of the development and the proposed mitigation are then assessed. For the purposes of the assessment the following assumption have been made:

- For human receptors, views are assessed at 1.8m, assuming adult standing height.
- For assessment of planting mitigation measures the following heights have been used. These are based on an average growth rate planted in suitable soils, during the optimum planting season and using good horticultural practices.

These estimates are based on experience. Naturally so many variables are involved eg species of tree, bare-root or root-balled or container grown, health of planting stock, quality of soil, suitability of plant to soil type, drainage, competing vegetation, ability of operative doing the planting, quality of planting aftercare etc.

Appendix A - Table 1 - Average Planting heights

Planting Type	Year 1	Year 5	Year 10	Year 15
Feathered Standard Trees	2.5-3m	4.5m	6.5m	8.5m
Selected Heavy Standard Trees	3.5m	4.5m	6.5m	8.5m
Semi-mature Tree	4.5	5.5m	7.5m	9.5m
Native Shrub/ Scrub	60-90cm	2m	3.5m	5m

Verified Photomontage Method Statement

A verified photomontage is a visual representation of a proposed development that is as accurate as it is possible to be within the limits of the technology used and the available data.

Although it is never possible to be perfectly accurate because of minor errors in survey work, environmental variables and photographic distortion, the careful implementation of a standard method will result in only a negligible error.

The method is divided into four sections; photography, survey, construction, and references.

Photography

Camera, lens and focal length

The aim of a verified photomontage is to illustrate what a development may look like to a human standing at the photographic viewpoint. In order to create this effect, all photographs are taken with a camera and lens combination, resulting in a "standard" focal length (equivalent to the cone of human vision). A standard focal length is usually considered to be in the range 45mm to 55mm on a traditional 35mm film camera. On digital cameras, where the image sensor is often smaller than the recorded image on traditional film cameras, the focal length of the lens used must compensate for the effective magnification resulting from the smaller sensor.

The photomontages in this document are based on images taken with a Canon 6D DSLR (full frame) camera combined with a 50mm prime (fixed focal length) lens. The full frame sensor in the 6D results in no magnification and combined with a 50mm lens gives a 35mm camera equivalent of a 50mm focal length, which is within the "standard" focal length range.

Each photograph was taken with the camera mounted on a tripod and with the centre of the camera lens at 1.6m above ground level.

Panoramic photography

Additional precautions have been taken to minimise optical

distortion and parallax error where a series of single frames have been "stitched" together to form a panoramic view.

Creating a horizontal plane: A finely adjustable levelling plate, set between the tripod and the tripod head is used to ensure that the plane of rotation of the camera is exactly horizontal. This avoids "stepping" (where adjacent frames are misaligned), commonly seen in panoramic photography.

Compensating for lens distortion: In order to use only the least distorted part of each shot, an overlap of 50% between adjacent frames is made. Each panorama is constructed from a series of photographs taken at 20 degree of arc intervals (a full-frame width being approximately 40 degrees of arc). This means that each panorama is constructed using only the central 50% of each shot with the 25% left and right hand edges (exhibiting the greatest distortion) being discarded.

Eliminating parallax error: To eliminate parallax error, a sliding plate on the tripod head is employed. This allows the camera to be moved back through the line of sight so that the nodal point of the lens is positioned over the axis of rotation.

The result of these precautions means that adjacent frames of each panorama can be spliced with a simple vertical joint, avoiding the usual distortion of images required to force a match between adjacent frames. Panoramas are constructed manually (not using a "stitching" tool) with Adobe Photoshop software.

Survey

Verified photomontage requires two sets of survey data; precise location data for camera viewpoints and a number of "control" points that are used to accurately fix the constructed CAD model perspective over the photograph (often known as camera matching points). The control points are points that are easily identifiable in the views and are often building corners, roof ridges or similar. A minimum of 3 control points covering

the field of view (ideally, one to the left, one in the middle and one to the right) is required for each image. However, wider panoramas require more control points and in most cases, a minimum of 5 control points is used for each view.

Camera Viewpoints

The camera viewpoints are located using a Leica SmartRover. This is a high accuracy GPS instrument, giving positional information correct to less than 20mm.

Control Points

The control points are located using a Leica TCRP1205+ total station. This allows points to be accurately located at distances of up to 1000m from the instrument. The control points are tied into the GPS viewpoint survey (with a tolerance of just a few millimetres) so that all points are consistent and fixed within the national grid. In locations where there are no obvious fixed points to use for control, ranging poles are placed in the middle ground of the view and their position recorded using the GPS instrument.

Viewpoint Marking

Each viewpoint may be visited a number of times in order to photograph the view in different conditions and it is important to relocate the surveyed viewpoints accurately on each visit. Where possible, the viewpoints are marked with a surveyors nail and in all cases a photographic record of the original tripod positions is kept for reference.

Construction

Construction of photomontages takes place in five stages:

- Building a 3D computer model: A 3D model of the proposed development is created using AutoCAD

software or imported into AutoCAD from other sources. Markers for the camera viewpoints and control points are added to the model using the survey data.

- Constructing perspectives: A series of perspective views is constructed from each camera viewpoint at 20 degree of arc horizontal intervals to match each photographic frame of the panorama. These perspectives include a wireline representation of the proposals along with visual markers for each of the surveyed control points. The perspective wirelines from each viewpoint are spliced to form a panoramic wireline
- Matching the wirelines to the photographs: The panoramic wireline views of the model are then accurately matched to the photographs using the control points as a reference for scale and position. The wireline is never distorted to fit the photographs. If all survey and photographic work has been undertaken carefully and accurately, a good fit between photograph and model should be possible by simply scaling and positioning.
- Rendering the model: Once the wirelines have been matched with the photographs, they act as a template for further work. Another set of panoramas is created using rendered images of the proposal at 20 degree of arc intervals. Each rendered panorama is then placed over the photograph using the wireline template as a guide.
- Completing the photomontage: The photomontage is completed by masking those parts of the rendered proposal that would be hidden by foreground objects. In some cases, the photomontage may be enhanced using photographic elements for more realism.

References

All photomontages were created in accordance with recommendations given in the following publications:

- Guidelines for Landscape and Visual Impact Assessment (Third Edition), published by The Landscape Institute and the Institute of Environmental Management & Assessment (2013).
- Visual Representation of Windfarms, Good Practice Guidance, published by Scottish Natural Heritage (2006).

IMPACTS

Construction Impacts

This period is defined as the building works up to the completion of a component of the development. The impacts are normally direct and temporary in terms of the project life cycle and generally result in the majority of adverse landscape and visual effects.

Operation and Management Impacts

These are impacts caused during the functioning of an individual component of the development, such as people, car, lorry and machinery movements, as well as the residual effects of landscape maturing. Most residual landscape effects are therefore generally beneficial and adverse views will normally decrease as planting matures. For the purposes of this assessment the impact has been assessed at seven years after the initial mitigation planting to show the effects approximately some way to maturity.

Residual effects are either positive or negative effects that cannot be mitigated by the proposed landscape strategy. (identified as permanent within the significance column of the assessment tables)

Cumulative effects are a result of additional changes to the landscape or visual character of the application site caused by the development working in conjunction with other existing, or in some cases proposed development in the area.

Landscape Impacts

These are concerned with the physical effects of the proposals on the landscape and the changes that might occur to its character and how it is perceived. Landscape effects can be direct or indirect, beneficial or adverse and can be cumulative,

permanent or temporary (short, medium or long term).

Direct effects include the quantifiable removal of features to the landscape, such as the loss of trees, hedgerows or water bodies or conversely, the addition of new landscape elements such as woodland.

Indirect effects include:

- Changes to the perception of the landscape;
- Changes in the character of an area;
- Changes to the experience of being in a particular space or designed landscape; and
- Changes to the experience of driving or cycling along a road or walking along a footpath

Visual Impacts

Visual effects relate to the changes that might arise to available views as a result of physical changes to the landscape and how people might respond to those changes. The views are assessed

As with landscape impacts, effects may be positive (beneficial), negative (adverse) and arise at different scales (local, regional or national) with different levels of significance. They may also be direct or indirect, cumulative, permanent or temporary (short, medium or long term).

ASSESSMENT CRITERIA

Appendix A - Table 1 - Landscape Condition Criteria

Introduction

Potential receptors are identified through the baseline and site visits. Threshold tables are used to assess the sensitivity or importance of receptors, the magnitude of change and the resulting significance. By correlating the magnitude and sensitivity it is possible to identify the level of significance of each impact.

Landscape Condition

Landscape character is inherently affected by the quality or condition of key elements within the site or its surroundings. Assessment of the quality is based on the physical state, visual and habitat intactness of the landscape, individual features or elements which contribute to the overall character including:

- The influence of existing built features and other detracting features;
- Appropriate land use and management;
- Consistency, strength, quality and intactness of both the landscape and visuals components.

	Criteria Definition
High	Areas that contain High/Moderate quality examples of important features, experiences and views that identify with the expected perception and key characteristic of the surrounding character. Landscape appropriately managed with minimal detractors or threats to the overall condition or integrity. Trees groups or woodlands of particular visual importance as arboricultural and/or landscape features or of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood pasture (Category A2/3 trees).
Moderate	Areas that contain Moderate/Low quality examples of important features, experiences and views that can detract from the expected perception and key characteristics of the surrounding character. Some landscape management however also evidence of decline or potential damage to the overall condition or integrity. Trees present in numbers, usually growing as groups or woodlands, such as they attract a higher collative rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wide locality. Trees with material conservation or other cultural value (Category B2/3 trees).
Low	Areas that are devoid or contain minimal examples of important features, experiences and views. Low expected perception with major alteration and detractors to the key elements of the surrounding character. Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits. Trees with no material conservation or other cultural value (Category C2/3 trees).

Appendix A - Table 2 - Landscape Value Criteria

Landscape Value

This relates to the perceived value that is afforded to landscape by society. The value can apply to individual elements or the overall aesthetic and perception elements which form the character. The value can apply to a combination of elements that contribute to the character of the landscape at both national, regional and local level such as:

- Quality, condition and intactness of both individual features and overall;
- Scenic quality and appeal to the receptors senses, including perceptual aspects such as tranquillity;
- Uniqueness, rarity and contribution to key local features;
- Cultural or historical associations
- Recreational Value

The value of a landscape cannot be assessed by a standard approach. The table below forms a framework for appraisal but professional judgement must be applied to consider the significance and influence of each of the factors within the landscape. A landscape does not always need to fulfil all of the criteria however a thorough reasoning and assessment should be given to justify the value.

Value	Importance	Typical Examples/Features
Very High	International or National	Lies within or contains elements of a World Heritage Site, National Park or AONB. Exceptional, well managed and unique high quality landscape and features that are fundamental to the character, well managed. Representative of the expected views and distinctive scenic quality of an internationally or nationally recognisable landscape or specific view. Tranquil and remote landscape with minimal influence from human activity. Forms part of the setting for internationally important historical buildings or cultural features. Landscape has strong historical and cultural associations. Provides a nationally important recreational resource or attraction.
High	National, Regional, District or Local	Lies within or contains elements of a National Park, AONB, Areas of Great / Special Landscape Value and areas designated within policy for the protection of its character. High quality landscape containing high quality and sometimes rare examples of key landscape characteristic features. Well managed, although some elements could be improved. Forms part of the attractive views/scenic quality representative of the designated or highly values landscape. Contains important or distinctive landscape features, or is important in recognised views. A tranquil or rural landscape with minimal or occasional influence from human activity. Provides a setting for Listed Buildings, Registered Parks and Gardens or nationally important historical/cultural features. The landscape contains elements that have cultural and historical association. Provides well used recreation facilities and attractions for locals and visitors.

Appendix A - Table 3 - Landscape Value Criteria

Value	Importance	Typical Examples/Features
Moderate	Regional, District or Local	Lies adjacent to a designated landscape or feature, or within a designation which is subject to some degradation. Lies within a landscape identified as important to local character or features. Moderate quality landscape or features. Some management of the whole or significant features evident. Forms part of or a feature notable within local views. Strong visual links to locally distinctive landscape features such as local monuments and church spires. Background influenced by transport networks or noise pollution, some human activity which can impact upon the potential tranquillity. Contains some local historic and cultural associations but not necessarily related to the landscape. A well used recreation resource or attraction for local residents
Low	District or Local	Does not lie within or influence a designated or protected landscape or feature. An ordinary low quality landscape with features in a degraded or damaged condition. Certain elements may be worthy of conservation and enhancement, currently minimal management. The landscape has a limited influence in local views with minimal scenic value. Some visual links to locally identifiable features. Heavily influenced by major transport networks, noise pollution and moderate or intermittent human activity. Cultural and historical associations do not relate to the landscape. Some informal recreational use, limited access.
Negligible		Does not lie within or influence a designated or protected landscape or feature. A notable detractor to the character of protected or designated landscapes. An ordinary low quality landscape, devoid of any key landscape features, often with minimal management. The landscape does not form a significant feature in local views or have any scenic value. No visual links to locally valued distinctive features and not representative of the local landscape. Heavily influenced by major transport networks or noise pollution, constant human activity. No historical or cultural associations. No recreational or public access.

Appendix A - Table 4 - Landscape Sensitivity Criteria

Landscape	
Very High	An international or nationally recognised landscape or feature afforded the highest level of protection through policy and designation. A landscape that will not accept any adverse effects on the physical and perceived qualities or features that contributes to the overall distinctiveness, experience and character.
High	A locally recognised landscape or feature afforded protection through local or regional policy and designation. A landscape particularly sensitive to change that would only accept minor and not easily recognisable adverse effects on the physical and perceived qualities of a landscape or townscape character, feature or elements.
Moderate	A locally recognised landscape or feature, although not protected, valued as a landscape resource or influential on the local character. A landscape capable of accepting limited change resulting in an easily recognisable new element within the landscape or townscape character, or impact on a feature that would not be perceived as out of context with the overall quality and experience.
Low	A landscape capable of accommodating considerable proposed change without significant effects on landscape or townscape character, features or elements

Appendix A - Table 5 - Visual Sensitivity Criteria

Receptor		View type	Sensitivity
Private dwellings	Gardens/ outdoor space	Often used for sitting and leisure, where people congregate with opportunity for high quality views over the surrounding landscape.	High
		Gardens that are Moderately well screened with opportunities for occasional Moderate quality views towards the surrounding landscape.	Moderate
		Gardens that are very well screened with no or extremely limited opportunities of low quality views towards the surrounding landscape.	Low
	Ground Floor	Windows orientated and designed to take advantage of specific views where people may congregate for a prolonged period of time.	High
		Windows that are orientated towards moderate or unexceptional quality views and contain urban elements or detracting views.	Moderate
		Windows that overlook low quality or degraded landscape, or are dominated by large urban structures.	Low
	Upper Floor	Balconies orientated and designed to take advantage of high quality views during the day	High
		Bedroom windows used for relatively short periods with curtains drawn at night.	Moderate
		Windows illuminating stairs, bathrooms or toilets	Low
Places of Work	External areas	Outdoor seating areas	Low
	Ground & Upper Floors	Windows overlooking development	Low
Recreational Routes	PROW, CRoWs& Cycle Routes & Waterways	Nationally designated paths/cycle ways with a high expectation of very high quality views and experiences including elevated panoramas.	Very High
		Recreational paths/cycle ways with a high expectation of quality views and experiences of the surrounding landscape.	High
		Recreational paths/cycle ways with a Moderate expectation of views and experiences and contain elements that are uncharacteristic or discordant with the overall view.	Moderate
		General access routes that are dominated by discordant and low quality aspects of the neighbouring landscape. Includes routes that appear to not be in use.	Low
Others	Public open space	Managed public open space normally found within or adjoining settlements used for formal and informal play/ sporting activities and intermittent use	Moderate
	Designated Cultural/ Historical Aspects	Views from and towards the feature form an integral part of the perceived setting of a designated heritage asset.	High
Roads	Rural	Well used recreation routes that allow prolonged high quality views of a designated landscape.	High
		Lanes or roads that provide local access to isolated settlements or may have occasional opportunities for both high and medium quality views.	Moderate
		Busy lanes where there is no expectation of high quality or prolonged views of the landscape or are low quality when available.	Low
	Main	Traffic speed likely to limit experience and influence on receptors	Low

Sensitivity

Landscape sensitivity relates to the extent that a landscape feature or area can 'accept change of a particular type and scale without unacceptable adverse effects on its character.'

Appendix A - Table 6 - Landscape Magnitude Criteria

Type	Magnitude	Criteria
Adverse	Major	Total loss of or major alteration to key elements/feature/characteristics of the baseline i.e. pre-development landscape and/or introduction of elements considered to be totally uncharacteristic when set up within the attributes of the receiving landscape
	Moderate	Partial loss of or alteration to key elements/features/characteristics of the baseline i.e. pre-development landscape or view and/or introduction of elements that may be prominent but may not necessarily be considered to be substantially uncharacteristic when set within the attributes of the receiving landscape
	Minor	Minimum loss of or alteration to key elements/features/characteristics of the baseline i.e. pre-development landscape and/or introduction of elements that may be prominent but may not be uncharacteristic when set within the attributes of the receiving landscape.
Negligible	Negligible	Very Minimum loss of or alteration to key elements/features/characteristics of the baseline i.e. pre-development landscape and/or introduction of elements that are not uncharacteristic with the surrounding landscape - no change.
Beneficial	Minor	Minor improvement or removal of key elements/features/characteristics that slightly detracts from the baseline character of the landscape and/or introduction of new elements, which relate to and provide minor enhancement to the baseline character of the landscape.
	Moderate	Moderate improvement or removal of key elements/features/characteristics that currently detract from the baseline character of the landscape and/or introduction of new elements, which fit into the baseline landscape/townscape and Moderately enhance the baseline character of the landscape/townscape.
	Major	Major improvement or removal of several notable key elements/features/characteristics that significantly detract from the baseline character of the landscape and/or introduction of new elements, which fit into the baseline landscape and substantially enhance the baseline character of the landscape.

Appendix A - Table 7 - Visual Magnitude Criteria

Type	Magnitude	Criteria
Adverse	Major	Major changes in views where the development would form a major and immediately apparent part of the scene that affects and changes its overall character and would be experienced on a regular or permanent basis.
	Moderate	Moderate changes in views where the development may form a visible and recognisable new element within the scene and may be readily noticed by the observer and would be experienced on an occasional basis.
	Minor	Minor changes in view, few receptors affected, where development would be a minor component of the wider view and may be missed by the casual observer-awareness of the proposals would not have a marked effect on the scene.
Negligible	Negligible	No perceived change in view where the development would be scarcely appreciated and, on balance, would have little effect on the scene.
Beneficial	Minor	Where enhancement or mitigation would be a minor component of the wider view, few receptors affected and may be missed by the casual observer-awareness of the proposals would not have a marked effect on the scene.
	Moderate	Moderate enhancement of views and or many receptors affected where the development may form a visible and recognisable new element within the scene and may be readily noticed and appreciated by the observer
	Major	Major enhancement of views and or large numbers of receptors affected. Where the development may form a visible and recognisable new element within the scene and may be readily noticed and appreciated by the observer

- The location and context of the viewpoint;
- The amount of use;
- The expectations and activity of the receptor, and
- The importance of the view.

Appendix A - Table 8 - Significance Matrix

Significance Matrix			Sensitivity			
Magnitude	Adverse	Major	Very High	High	Moderate	Low
		Moderate	Severe	Major	Major/ Moderate	Moderate
		Minor	Major	Major/ Moderate	Moderate	Moderate/ Minor
	Negligible					
	Beneficial	Minor	Moderate	Moderate/ Minor	Moderate/ Minor	Minor
		Moderate	Major	Major/ Moderate	Moderate	Moderate/ Minor
		Major	Major	Major	Major/ Moderate	Moderate

Appendix A - Table 9 - Landscape Impact Significance Definitions

Impact	Definition
Severe	The proposals become the dominant feature in, or fundamentally change the character of, a very important landscape, such that other elements become subordinate
Major	The proposals form an immediately apparent feature in a Moderately or very important landscape such that they affect and change its overall character
Moderate	The proposals form a recognisable new element within a Moderately or very important landscape, but are of such a design or small scale that a casual observer may not readily notice the change in character. Alternatively, the proposals cause an immediately apparent or fundamental change in character in a landscape of low importance
Minor	The proposals form a recognisable new element of different character within a landscape of low importance, but to such a small degree that they may not be readily noticed by an observer
Negligible	No part of the proposals have any effect on the landscape, such that they are scarcely or not appreciated and the character remains substantially unchanged

Appendix A - Table 10 - Visual Impact Significance Definitions

Impact	Definition
Severe	Dominating changes to views from the most important receptors
Major	Major changes to views from important and very important receptors, or dominating changes to views from Moderately important receptors
Moderate	Moderate Major or dominating changes to views from receptors of low importance, or small changes to views from important and very important receptors
Minor	Small changes to views from receptors of low importance
Negligible	No discernible change to views, or changes at such a distance or of such a small scale that a negligible component of wider views is influenced. Alternatively no views of the proposal available from important receptors

APPENDIX B

RELEVANT POLICY EXTRACTS

Oldlands Farm - Phase 2, Bognor Regis

Landscape & Visual Appraisal

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ARUN DISTRICT COUNCIL LOCAL PLAN 2003

POLICY GEN7 The Form of New Development

Planning permission will only be granted for schemes displaying high quality design and layout. Development proposals involving new buildings or significant extensions or alterations must be accompanied by an illustrated written analysis of the site and its immediate setting, together with its relationship with the relevant townscape, landscape, wildlife and movement characteristics of the wider area.

Development will be permitted provided it:

- (i) makes efficient use of land or buildings and, in the case of new residential development, achieves net densities of at least 30 dwellings per hectare;
- (ii) demonstrates that it responds positively to the identified characteristics and resources of the site and the area to create attractive places and spaces with the needs of people in mind and respects and enhances local distinctiveness;
- (iii) promotes sustainable development, including the effective use and conservation of energy and reducing the need to travel, particularly by private car;
- (iv) does not have an unacceptable adverse impact on adjoining occupiers, land, uses or property and, where relevant, facilitates the development of adjoining sites;
- (v) takes account of any unacceptable adverse impacts that may arise from adjoining land uses or property;
- (vi) retains significant open or wooded areas which, in

their own right, make a material contribution to the local environment;

(vii) allows for the safe movement of pedestrians and vehicles, giving priority to pedestrians;

(viii) provides for vehicle parking in accordance with Policy GEN12 and Appendix 2 and open space in accordance with Policy GEN20.

In all cases, the District Council will expect a high standard of design and layout and all applicants will be encouraged to improve the visual amenities of the particular locality in scale, external appearance, hard and soft landscaping and materials.

POLICY GEN9 Foul and Surface Water Drainage

Planning permission for development which will materially increase foul and/or surface water discharges will be refused unless the Local Planning Authority is satisfied that either adequate drainage capacity exists or appropriate drainage capacity can be provided as part of the development. Consideration should also be given to the use of Sustainable Urban Drainage Systems (SUDS) as alternatives to conventional drainage where appropriate.

POLICY GEN11 Inland Flooding

Permission for development which would be at risk from flooding and/or materially decrease the capacity of a floodplain to store or pass flows of floodwater, will be refused unless the Local Planning Authority is satisfied that compensatory flood storage/waterway areas can be provided as part of the development and the function and effectiveness of existing

watercourses, or their replacements, are not adversely affected.

POLICY GEN15 Cycling and Walking

The Council will continue to work with West Sussex County Council and others to encourage and support the development of safe cycle and footpath networks. Where appropriate, new development will be required to provide safe and attractive facilities for cyclists and pedestrians, both within the site and in the form of links to the surrounding area. The proposed Barnham - Felpham and River Arun cycle routes will be protected from development which would preclude their use as a safe cycle route.

POLICY GEN18 Crime Prevention

Planning permission for new residential, commercial, recreation or community developments will not be permitted unless the Local Planning Authority is satisfied that the development includes crime prevention measures, as far as this is practicable and compatible with achieving a high quality design and layout.

Reason

To reduce the risk of crime.

Explanation

1.63 The design, layout, landscaping and lighting of new development can help reduce the risk of crime. Appropriately designed features can provide people with a safer, more secure environment. Sussex Police have a crime prevention strategy entitled "Secured by Design" and "Secured by Design

Commercial" in which guidelines are set for crime prevention.

POLICY GEN23 The Water Environment

Development will not be permitted if it would have a direct or indirect unacceptable adverse impact on the water environment, notably in relation to rivers, ponds, wetlands, public access in river corridors and water related recreation.

Where appropriate, the Council will support initiatives which seek to restore or enhance the water environment.

POLICY GEN33 Light Pollution

Planning permission will be permitted for proposals which involve outdoor lighting schemes subject to:-

- (i) no adverse impact on neighbouring uses or the wider landscape;
- (ii) light levels being the minimum required for security and working purposes; and
- (iii) minimising the potential glare and spillage.

Where appropriate, the Local Planning Authority will seek to control the times of illumination.

SUBMISSION LOCAL PLAN (2011-2029) – WILL REPLACE THE LOCAL PLAN ONCE ADOPTED

Policy SP 6 Strategic Employment Land Allocations

Employment is important for people's health and well-being. It is also place shaping in that is an essential element of sustainable development. The creation of jobs is central to this Plan and the Council will support employment land brought forward on a scale and in locations consistent with this policy and these will be protected for the plan period.

The following allocations:

1. Provide significant new employment opportunities to support the objectives of reducing out commuting and creating local jobs;
2. Provide employment-led development to support the objective of providing a new role for Bognor Regis in the 21st Century complementing other new planned investment in the town;
3. Provide different types and sizes of employment space to meet a range of modern business and sector needs, capable of accommodating indigenous and inward investment requirements;
4. Deliver new infrastructure to meet the requirements of businesses that can provide wider benefits for the sub-region; and
5. Will need to be developed with consideration and enhancement of landscape character, designated and other habitats and for protected species.

Policy DM 6 enterprise@BognorRegis

The areas constituting the enterprise@BognorRegis zone,

identified as sites 1-4 of the Strategic Employment Land Allocation, are allocated to promote economic growth in Bognor Regis and wider Coastal West Sussex sub-region. A phased mix of B1, B2 and B8 uses will be supported where the following are addressed:

1. Suitable upgrading and provision of access and/or junctions to the A29/A259 and Rowan Way as appropriate;
2. A suitable Transport Assessment and Travel Plan demonstrating how the impacts of development can be mitigated including impacts on the A27 Fontwell junction and Bognor Regis roundabout specifically and to improve a modal shift towards an increase in sustainable transport;
3. Appropriate flood mitigation works;
4. Connection to the existing sewerage system off-site at the nearest point of adequate capacity and where located within a flood risk area a sealed sewerage system;
5. The importance of the sites in relation to birds and wildlife, particularly protected species and where necessary, mitigation measures to ensure no overall loss of biodiversity;
6. A high standard of design and landscaping to maximise the 'gateway' location of the sites.
7. Suitable screening to protect the amenity of existing residents and views from the South Downs National Park.

In order to attract new employment investment, and to realise the Council's vision for the Site, the Council recognises that the provision of non B-class employment development could be appropriate to support sustainable and viable employment

development. The inclusion of such non B-class uses will be permitted therefore subject only to the following conditions:

1. Compatibility with the predominant use of the site for B-class employment uses;
3. Be of a scale and nature so as not to generate levels of traffic, cause environmental impacts or involve noise sensitive uses that adversely affect the operations of B-class employment uses on the Site;
4. Class C3 Residential use and development will not be considered appropriate.

Policy SP 16 Design

All development proposals within the District of Arun should demonstrate a high standard of quality design. Development proposals should have been derived from: a thorough site analysis and context appraisal; adherence to objectives informing sustainable design (inclusivity, adaptability, security, attractiveness and usability, health and wellbeing and climate change mitigation); and the influence these objectives have on the form of the development. All development proposals must consider the efficient use of land, layout, landscape and its setting, density, mix, scale, massing, materials, finish, architectural details and nearby habitats.

Policy DM 17 Aspects of Form and Design Quality

When considering any application for development the Council will have regard to the following aspects:

1. Character

Make the best possible use of the available land by reflecting or improving upon the character of the site and the surrounding area, in terms of its scale, massing, aspect, siting, layout, density, building materials (colour, texture), landscaping, and design features.

2. Appearance/Attractiveness

Demonstrate a high standard of architectural principles, use of building materials, craftsmanship and hard and soft landscaping.

3. Impact

Have minimal impact to users and occupiers of nearby property and land. For example the loss of sunlight/over-shadowing, over-looking issues, loss of privacy, anti-social noise/disturbance or having an over-bearing presence.

4. Innovation

Raise standards of design by embracing innovative design, new technologies and construction techniques, where a development proposal has the potential to do so.

5. Adaptability

Acknowledge diversity and difference. Buildings and places should be flexible to future adaptation, including the changing needs of occupants (for example ageing users, family circumstances), changes in wider work and social trends, and be able to accommodate potential differing uses of public space.

6. Crime Prevention

Provide security measures that make places feel safer. This

shall be achieved through natural surveillance and human presence by locating buildings and play areas along public routes and spaces, and making a clear division between private and public land to foster a mutual protection through territorial belonging. With respect to crime prevention, regard shall be had in particular to the document 'New Homes 2010 - Secured by Design' and the 'Safer Places - The Planning System and Crime Prevention'.

7. Trees and Woodland

All new development will be expected to incorporate existing and new tree planting as an integral part of development proposals.

8. Solar gain

Within the constraints of the site and local context development proposals should, maximise sunlight and passive solar energy. Ideally development should be positioned (within a 15-20 degree margin) broadly south, with streets having an east-west pattern.

9. Public Realm

Provide or enhance layouts, streets and public spaces so that they are attractive, socially inclusive, safe and secure, adaptable, with appropriate provision for planting, street furniture, and facilities for bicycle storage to create a place with attractive and successful outdoor areas.

10. Layout - Movement

Utilise existing networks or improve access via delivery of a variety of integrated networks, to and from residential areas, commercial zones, open spaces, facilities and public

transport. Development schemes should carefully consider walking and cycling as an integral part of the overall design concept. The layout of a development scheme should be designed to encourage these sustainable modes of transport whilst also designing in vehicular movements as well.

11. Layout - Legibility

Deliver or contribute to the ease of navigation within a new or existing development scheme through use of focal points (landmarks, gateways, vistas, corner buildings, active edges, existing topography), and/or a variety of detail within the public realm (sculpture, planting, street furniture, building materials, building detail, signage).

12. Public Art

Public Art should be incorporated into schemes where there is capacity to do so.

13. Density

Proposals should reflect the density of the site and its surroundings. The density of large site should be varied to guard against uniformity.

14. Scale

The scale of development should keep within the general confines of the overall character of a locality unless it can be demonstrated that the contrary would bring a substantial visual improvement.

Policy SP 17 Adapting to Climate Change

The Council will support development which is located and appropriately designed to adapt to impacts arising from climate

change such as the increased probability of tidal and fluvial flooding; water stress; health impacts as a result of extreme temperatures and a decline in the quality of habitats and richness of biodiversity. In order to achieve this, development must be designed to take account of the following issues:

- i. Location (in relation to flood risk and vulnerability to coastal erosion);
- ii. Water efficiency;
- iii. Shade, cooling, ventilation, solar gain;
- iv. Connectivity to the green infrastructure network;
- v. Layout and massing;
- vi. Resilience of buildings and building materials to extreme weather events; and
- vii. Capacity of drainage systems and incorporation of Sustainable urban Drainage Systems (SuDS)

Policy SP 21 Transport and Development

To ensure that growth in the District strengthens Arun's economic base, reduces congestion, works to tackle climate change and promotes healthy lifestyles, the Council will ensure that development provides safe access on to the highway network, contributes to highway improvements and promotes sustainable transport, including the use of low emission fuels, public transport and the cycle, pedestrian and bridleway network.

The Council will support development which:

- i. Is designed to reduce the need to travel by car by identifying opportunities to improve access to public transport services

and passenger transport services whilst making provision for safe access to the highway network through improvements to the existing road network and the promotion of vehicles which use low-carbon energy;

- ii. Is incorporated into the District's green infrastructure network and gives priority to pedestrian and cycle movements;

- iii. Protects the lines of major road schemes from development and, where applicable, contributes towards new road schemes which improve north-south links between Bognor Regis and Littlehampton and the A27, to ensure that they are delivered in line with strategic growth in the District;

- iv. Incorporates appropriate levels of parking in line with West Sussex County Council guidance on parking provision and takes into consideration the impact of development upon on-street parking and;

- v. Where required by current guidance, is supported by an effective and deliverable

Transport Assessment which demonstrates that the transport effects of development on the local and strategic road network can be satisfactorily mitigated and a Travel Plan, which is effective and deliverable, and must explain how the development has been designed to:

- a. accommodate the efficient delivery of goods and supplies;
- b. gives priority to pedestrian and cycle movements and have access to high quality public transport facilities;
- c. creates safe and secure layouts for traffic, cyclists and pedestrians whilst avoiding street clutter;
- d. incorporates facilities for charging electric and plug-in hybrid

vehicles (where charging facilities are to be omitted from the development, evidence of market demand and viability must be provided); and

e. consider the needs of people with disabilities by all modes of transport.

Policy DM 23 Sustainable Travel and Public Rights of Way

New development must ensure ease of movement, prioritising safe pedestrian and cycle access to the green infrastructure network and access to public transport and community transport services where a need has been identified. Access to alternative modes of transport including public transport services, the public right of way and cycle networks, must be available and accessible to all members of the community.

Proposals for all new development must:

i. Be located within easy access of established public transport service(s), existing cycle network, the committed and aspirational cycle networks as identified on the Policies Map and, the green infrastructure network which links the development with key destinations including places of work, education, leisure and town centres;

ii. Where applicable, contribute to the extension of public transport services to serve the development and community transport services to ensure that a wide range of transport services are available to all residents;

iii. Make provision for cycling and pedestrian facilities to meet the County Council

Parking Standards, including cycle storage, convenient and secure cycle parking in association with retail and educational

uses and sufficient secure parking and changing facilities at places of work;

iv. Contribute towards the provision of a joined up cycle network and Public Rights of Way network, taking into account the aspirational cycle network, which provides convenient, accessible, safe, comfortable and attractive routes for pedestrians and cyclists, both within the development and in the form of links between the development; and

a. Places of work, education, leisure and food retail;

Policy DM 36 Development and Biodiversity

Development schemes shall, in the first instance, seek to achieve a net gain in biodiversity and protect existing habitats on site. They shall also however incorporate elements of biodiversity including green walls, roofs, bat and bird boxes as well as landscape features minimising adverse impacts on existing habitats (whether designated or not). Development schemes shall also be appropriately designed to facilitate the emergence of new habitats through the creation of links between habitat areas and open spaces. Together, these provide a network of green spaces which serve to reconnect isolated sites and facilitate species movement.

Where there is evidence of a protected species on a proposed development site, planning applications shall include a detailed survey of the subject species, with details of measures to be incorporated into the development scheme to avoid loss of the species. This involves consideration of any impacts that will affect the species directly or indirectly, whether within the application site or in an area outside of the site, which may be indirectly affected by the proposals. All surveys shall be carried

out at an appropriate time of year and shall be undertaken by a qualified and, where appropriate, suitably licensed person.

All developments shall have regard to Natural England's standing advice for protected species.

Policy SP 26 Water

Arun District Council will encourage water efficiency measures in order to protect the district's water resources and enhance the quality of the water environment which supports a range of habitats and ecosystems. Development will be encouraged to make active use of surface water as a design feature and permitted where it identifies measures to improve and enhance waterbodies, coastal habitats or provides additional flood relief.

The Council will also support development which is appropriately located, taking account of flood risk and promotes the incorporation of appropriate mitigation measures into new development, particularly Sustainable Drainage Systems that reduce the creation and flow of surface water; the risk to homes and places of work from flooding whilst increasing biodiversity; deliver a range of community benefits including enhancing the quality of life and providing greater resistance to the impact of climate change

Policy DM 39 Sustainable Urban Drainage Systems

To increase the levels of water capture and storage and improve water quality, all development must identify opportunities to incorporate a range of Sustainable Urban Drainage Systems (SUDS), appropriate to the size of development, at an early stage of the design process.

Proposals for both major and minor development proposals must incorporate SUDS within the private areas of the development in order to provide source control features to the overall SUDS design. These features include:

- i. Green roofs
- ii. Permeable driveways and parking
- iii. Soakaways
- iv. Water harvesting and storage features including water butts.

Proposals for major development must also integrate SUDS within public open spaces and roads, in liaison with West Sussex County Council, (the SUDS Approval Body) or its agent. SUDS must therefore be integrated into the overall design of a development and must:

- a. Contribute positively to the appearance of the area
- b. Effectively manage water (including its quality)
- c. Accommodate and enhance biodiversity by making connections to existing Green Infrastructure assets and
- d. Provide amenity for local residents (ensuring a safe environment) and
- e. Retain existing open drainage ditches in their current form.

In order to ensure that SUDS discharge water from the development at the same or lesser rate, as prior to construction, developers must:

- 1. Follow the hierarchy of preference for different types of surface water drainage disposal systems as set out in Approved Document H of the Building Regulations and the SUDS manual produced by CIRIA.

2. Undertake up to six months groundwater monitoring within the winter period.

3. Undertake winter percolation testing in accordance with BRE365.

4. The proposed drainage system must be designed to ensure that there is no flooding on a 1 in 30 year storm event.

5. The design must also take account of the 1 in 100 year storm event plus 30% allowance for climate change, on stored volumes, to ensure that there is no flooding of properties or the public highway or inundation of the foul sewerage system. Any excess flows must be contained within the site boundary, and within designated storage areas.

6. Flow routes through the development must be demonstrated as a first stage in the design process, demonstrating how water will travel at or near the surface for three types of flow:

Low flow routes: Once surface water run-off has been collected, cleaned and controlled in source control features it will either be stored where it fell as rain in permeable pavement, or flow onward to local storage structures. The day-to-day flows from these features should travel in low flow channels through the development in a controlled way contributing to landscape quality.

Overflows: In the event of local blockages or surcharge a simple overflow arrangement should allow water to bypass the obstruction and return to the management train sequence until conditions return to normal.

Exceedance routes: When SUDS are overwhelmed by exceptional rainfall then exceedance routes protect people and property by providing unobstructed overland flow routes

from the development and should be considered for all drainage schemes.

The SUDS design must demonstrate that flow routes have been considered at each design stage to take into account the effect of proposed development on the natural flow pattern for the site.

Exceedance routes should also be protected from future changes in land use.

Policy SP 27 Quality of the Environment

The Council requires that all development contributes positively to the quality of the environment and will ensure that development does not have a significantly negative impact upon residential amenity, the natural environment or upon leisure and recreational activities enjoyed by residents and visitors to the District.

The location of existing industrial and commercial uses, including waste management uses, must be taken into consideration when assessing proposals for development sensitive to noise, light, odour and outputs to air. This is to ensure that land allocated for these uses are protected and to ensure that the amenity of new developments and facilities is safeguarded from the impacts of incompatible land uses.

Policy DM 44 Light Pollution

Planning permission for proposals which involve outdoor lighting must be accompanied by a lighting scheme prepared according to the latest national design guidance and relevant British Standards publications. Outdoor lighting schemes will

be considered against the following criteria:

- i. No adverse impact on neighbouring uses or the wider landscape;
- ii. Light levels being the minimum required for security and working purposes; and
- iii. Minimising the potential glare and spillage.

Where appropriate, the Local Planning Authority will seek to control the times of illumination.

APPENDIX C

RELEVANT LCA EXTRACTS

Oldlands Farm - Phase 2, Bognor Regis

Landscape & Visual Appraisal

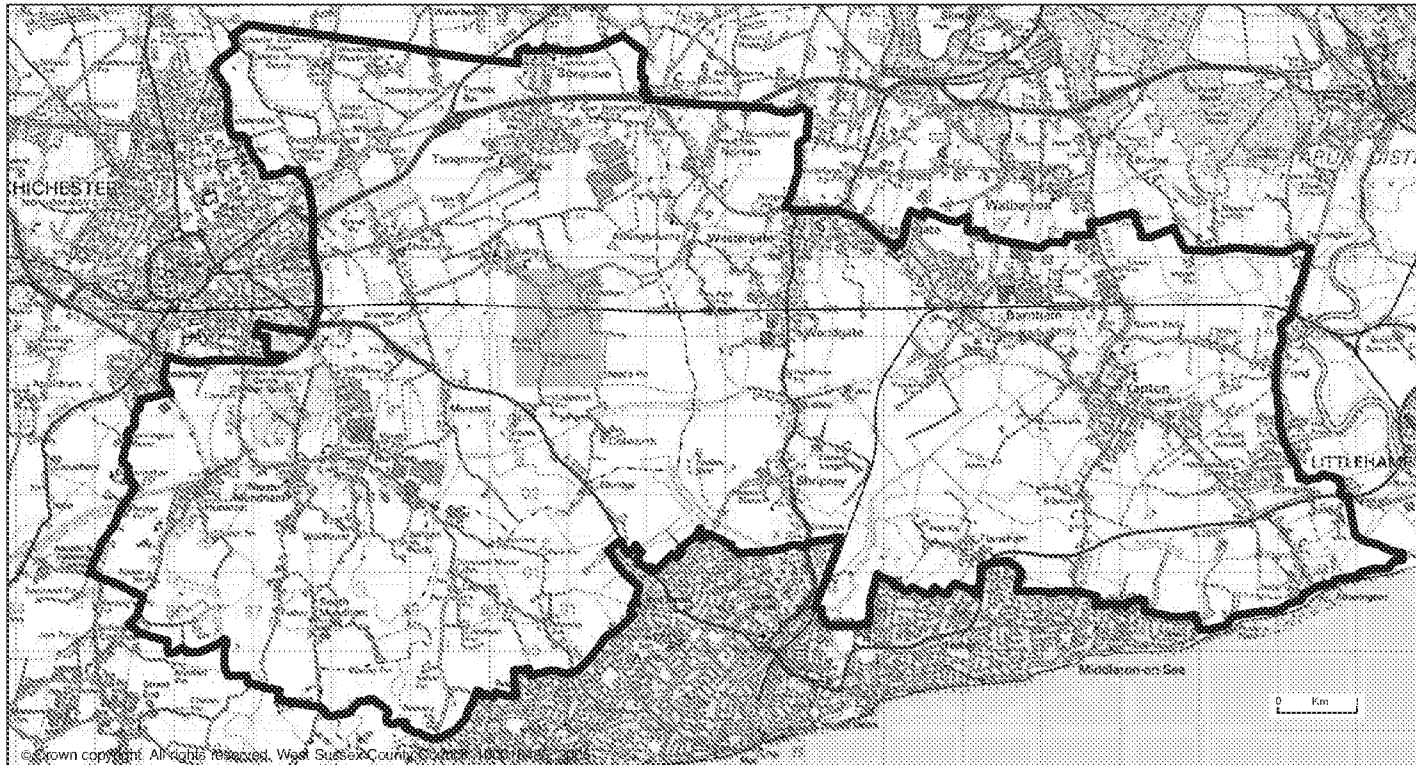
Daveco
Landscape
Architects

Overall Character

This Character Area extends from Chichester in the west to the edge of the Arun Valley in the east, and around Bognor Regis to the south. Over time a large part of this area has been reclaimed from the sea, and remains below the current high spring tide level. It comprises a mainly flat, open landscape crossed by meandering rifes. Dominated by highly productive arable fields and modern farm buildings, it has a fragmented hedgerow and hedgerow tree pattern. The spire of Chichester Cathedral is a widely visible feature. Rows of large light reflecting glasshouses, equestrian facilities, horse paddocks and industrial buildings, for instance in the Ford and Tangmere areas, are strong suburban elements. Where these occur, they create visual confusion and poor definition between town and countryside, and erode distinctive landscape character. Major suburban settlements in the area are Tangmere, Barnham, Yapton, and Westergate. In contrast, there are areas of a smaller scale, more varied rural landscape with quiet hamlets and traditional villages enclosed by small pastures.

Key Characteristics

- Low lying flat open landscape.
- Meandering rifes and straight drainage ditch systems, with associated unimproved grassland and ridged by reed beds.
- A low density of hedgerows and hedgerow trees with occasional shelterbelts.
- Large-scale arable farming and market gardening. Extensive farms with both traditional and modern farm buildings and sites.
- Clusters of glasshouses.
- Scattered, historically nucleated villages with mixed building materials of flint, brick, half timber and more.
- Large farmsteads along roads and on dead-end tracks.
- Long views to Arundel, the Downs and to the distinctive spire of Chichester Cathedral.
- The relatively open character of much of the area allows long views so that village church towers are important landmarks in views.
- Frequent urban fringe influences of horse paddocks, light industry and disused airfields with busy railway and major roads.
- The urban fringes associated with Bognor are particularly obvious, with sporadic urban development in suburban settlements of Tangmere, Barnham, Yapton, and Westergate.
- Large gravel pit lakes around the edge of Chichester.
- Few trees or hedgerows, partly as a result of Dutch Elm Disease from the 1970s and the Great Storm of 1987 and overall high quality agricultural land, although where they do exist they form prominent features.
- Light industry in the countryside at Ford and Tangmere.



THE WEST SUSSEX LANDSCAPE

Land Management Guidelines

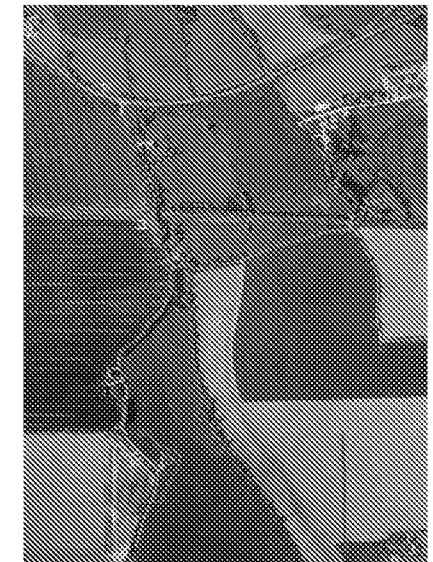
Sheet SC9

Chichester to Yapton Coastal Plain

South Coast Plain

The area covered by the Sheet is derived from:

Chichester to Shoreham Coastal Plain (C1) Landscape Character Area as defined in the unpublished **West Sussex Landscape Character Assessment** (November 2003).



SC9

Oldlands Farm - Phase 2, Bognor Regis

Landscape & Visual Appraisal

Historic Features

- Area settled and resources exploited from prehistoric times onwards. Few visible prehistoric monuments apart from crop marks.
- Distinctive medieval manor houses at Shripney and Barnham Court.
- Important medieval churches with spires which distinguish this otherwise flat landscape.
- Large regular fields, mostly the product of Parliamentary enclosure.
- Remains of the line of the Arundel to Chichester Canal. This formed part of an important late 18th century barge route.
- Excavations at Westthamptnett, in advance of the bypass, demonstrated that Roman, iron age and earlier settlement evidence may lie just below plough soil level.
- At Aldingbourne, beside the Rife, lie the remains of a medieval castle. In those days Aldingbourne Rife was a navigable waterway.
- Disused airfields, such as at Tangmere and Yapton.

Biodiversity

- Semi-natural habitats are scarce due to intensive arable agriculture.
- Hedgerow pattern is fragmented with occasional isolated woods, for example, Hunston Copse (Site of Nature Conservation Importance, SNCI).
- Low lying species-rich grasslands adjacent to the rife, artificial water bodies of Chichester canal (SNCI) and gravel pits together with remnant semi-natural broadleaved woodlands form pockets of high nature conservation importance.
- Occasional species-rich meadows along rife, for example, Kingston Manor meadows, Runcton.
- Artificial lakes of the Chichester Gravel Pit complex are particularly important for wintering and breeding birds as the largest collection of inland water bodies in the county.
- Occasional village ponds and greens provide local havens for wildlife.
- Invasive floating pennywort in Pagham Rife.

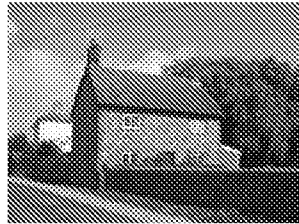
Change - Key Issues

- Urban development pressures, especially in the gaps between settlements and on the edge of Chichester.
- Major road improvements.
- Loss of mature elm trees in the 1970's and 1980's due to Dutch Elm disease.
- Loss of floodplain and wet woodland due to changes in agricultural drainage practices.
- Loss of tree and hedgerow cover from agricultural intensification since World War II.
- Conversion of agricultural buildings to light industrial uses.
- Farm diversification and garden centres leading to introduction of signs and fencing.
- Introduction of large scale industrial buildings and glasshouses with distribution sheds.
- Derelict glasshouses.
- Climate change may increase the risk of storm surges associated with flooding. This will have consequences for inter-tidal habitats, increasing pressure for possibly insensitive coastal defences.
- Management and possible realignment of sea defences due to predicted sea level rises will have significant implications for landscape over the coming decades.

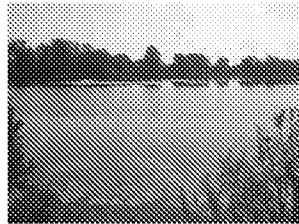
Landscape and Visual Sensitivities

Key sensitivities are:

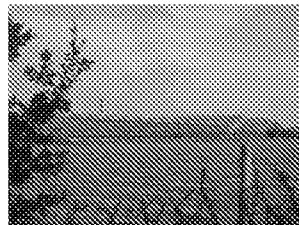
- Key views to the South Downs, Chichester Cathedral and Arundel.
- Fragmentation and loss of hedgerows and connections between hedgerow and woodland.
- Replacement of mature treescape.
- Changes in drainage patterns.
- Industry in the countryside associated with horticulture and light industry, resulting in large clusters of glasshouses and industrial buildings.
- Loss of archaeological remains to ploughing.
- Development on settlement edges of Bognor and suburban settlements of Tangmere, Barnham, Yapton and Westergate.
- Loss of distinction between different settlements due to urban expansion.
- Changes in transport infrastructure due to urban development pressures.
- Managed retreat of the coastline may be particularly influential in the future, providing opportunities for the creation of new coastal and inter-tidal habitats, and could result in a more naturally functioning landscape.



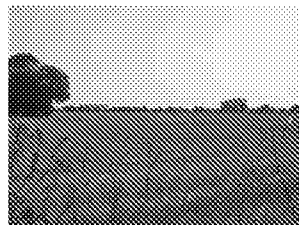
Scattered villages - Arundel



Gravel Pit Lakes - Chichester

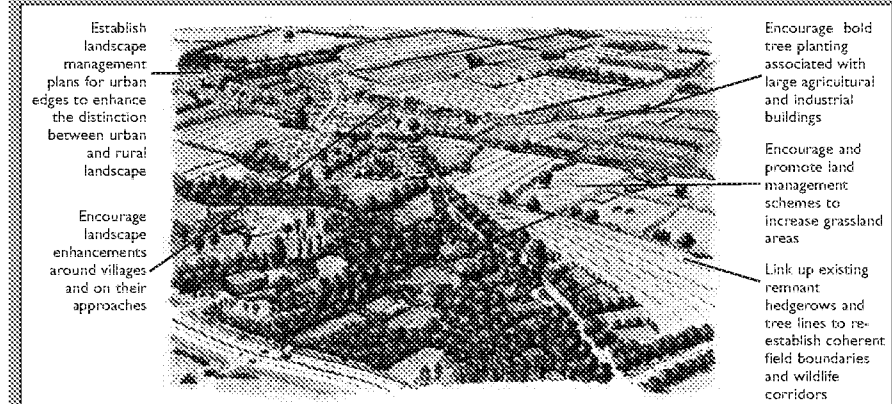


Cluster of glasshouses - Barnham



Large scale arched tunnel on flat open landscape - Oving

Land Management Guidelines



Conserve the significant views to Chichester Cathedral and the South Downs.

- Create a new large scale tree and hedgerow framework which complements the open intensively farmed landscape whilst maintaining significant views of Chichester Cathedral, the South Downs and local features.
- Maintain and strengthen field boundaries such as hedgerows and shelterbelts.
- Link up existing remnant hedgerows and tree lines to re-establish coherent field boundaries and wildlife corridors.
- Encourage a full tree survey of the area with a view to conserving and managing existing feature tree groups and individual trees.
- Encourage and promote land management schemes to increase species rich grassland areas.
- Promote management and establishment of grassland regimes of grazing, hay cutting and silage.
- Establish landscape management plans for urban edges, notably Bognor Regis, to enhance the distinction between the urban and rural landscape.
- Restore and strengthen the landscape of the gaps between settlements.
- Encourage landscape enhancements around villages and on their approaches.
- Establish new vegetation features by the planting of hedgerows and tree clumps in field corners and along roadsides, especially those approaching settlements.
- Encourage the planting of shelter belts around horse paddocks, using native species, to give visual and wildlife benefits.
- Promote sympathetic design of new road schemes, particularly associated with transport infrastructure for Bognor Regis.
- Encourage the production of a colour and design study for new and existing agricultural and industrial buildings.
- Encourage bold tree planting associated with large agricultural buildings, glasshouses and industrial buildings to attempt to assimilate them into the landscape more satisfactorily.
- Restrict extensive areas of tree planting to poorer quality agricultural land.
- Encourage the replacement or restoration of derelict glasshouses where these appear detrimental to the landscape.
- Maintain and enhance the landscape and biodiversity of rife and other existing habitats. Reprofile banks and encourage more diverse flora by lengthening clearance cycles.
- Enhance the visual prominence of rife through the establishment of waterside vegetation features.
- Maintain, restore and enhance floodplain woodland and associated species, including native black poplar, where appropriate.

The Guidelines should be read in conjunction with:

- County-wide Landscape Guidelines set out in A Strategy for the West Sussex Landscape (November 2005) published by West Sussex County Council.
- Climate Change Adaptation Management Plan, 2006.
- South Downs Shoreline Management Plan - Beachy Head to Seixey Bill (under review).
- Black Poplar Species Action Plan for Sussex, June 2005.

For further information call [redacted] visit www.westsussex.gov.uk

Character Area

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South Coast Plain

- Major urban developments including Portsmouth, Worthing and Brighton linked by the A27/M27 corridor dominate much of the open, intensively farmed, flat, coastal plain.
- Coastal inlets and 'harbours' contain a diverse landscape of narrow tidal creeks, mudflats, shingle beaches, dunes, grazing marshes and paddocks. From the Downs and coastal plain edge there are long views towards the sea and the Isle of Wight beyond.
- Trees are not a dominant feature - there are some small woods and a few windwept individual trees in the farmland or the occasional poplar shelter belt.
- A pattern of large arable fields, defined by low hedgerows, are often interspersed by horticultural glasshouse 'estates' and isolated remnants of coastal heath.
- The complex series of creeks, mudflats and shingle beaches along the coastal edge becomes less apparent to the east with the intensively farmed plain increasingly dominated by disordered seaside towns and leisure developments.

The South Coast Plain lies between the dip slope of the, South Downs and the waters of the English Channel, Solent and part of Southampton Water. The Plain stretches from Southampton Water in the west, widening to about 10 miles across to form the Manhood Peninsula and Selsey Bill, before tapering eastwards towards Brighton. The coastline includes several inlets such as Chichester and Langstone Harbours which are particularly distinctive local landscapes.

The flat coastal plain has, in part, an intricately indented shoreline and, although rather exposed to south-westerly winds, temperatures are relatively warm, soils are high quality and the growing season is long. The area is thus intensively farmed and includes a prosperous horticultural industry with glasshouse, development and tourist trade.

The area exhibits one of the longest and most concentrated stretches of shoreline ribbon development in Britain and each coastal town or village has developed almost to the high water mark.

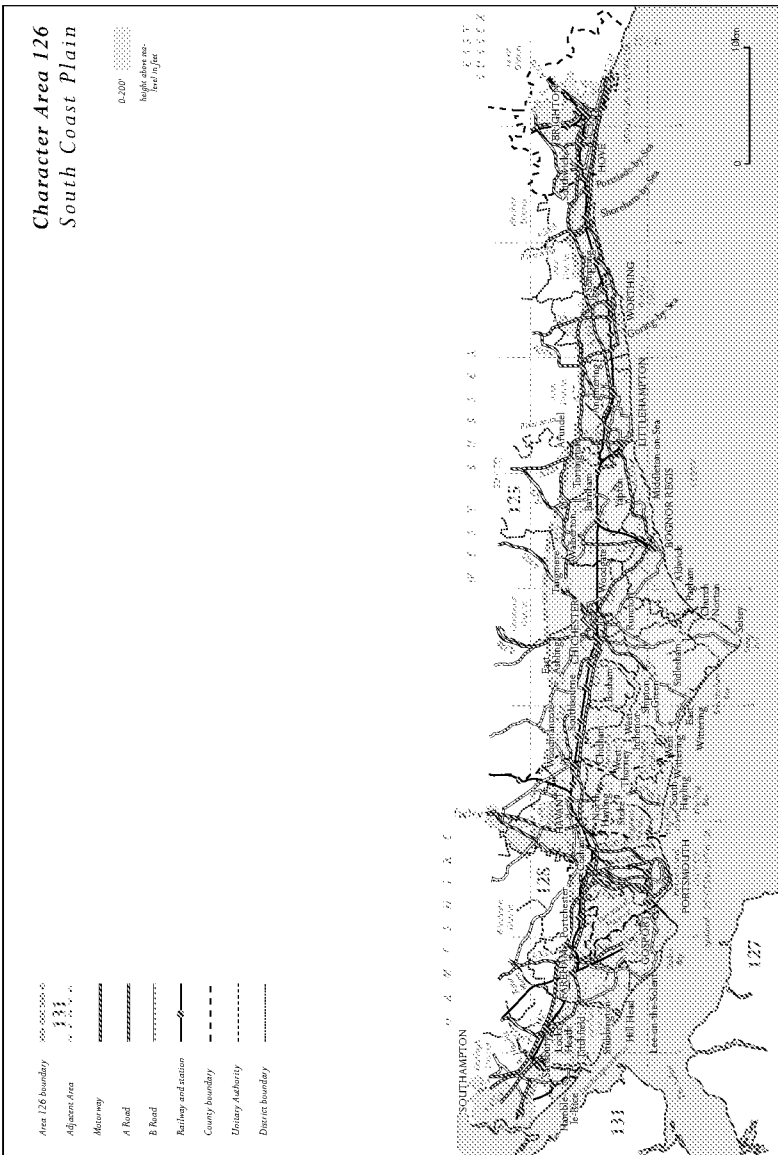
The Plain is broadly divided into the coastal margins which are heavily influenced by the sea, the expansive lower coastal plain which occupies most of the area, and the upper coastal plain. The latter forms the transitional area between the lower plain and the Chalk dip slope of the South Downs to the east and with the South Hampshire Lowlands further west.



Mud flats and salt marshes with characteristic inlets fringe the undeveloped harbours.

While large parts of the coastal margins have been urbanised by the spread of seaside towns and budget holiday accommodation, the remaining open coastline contains secretive inlets and enclosed harbours. The exposed shoreline is an exhilarating, open, linear landscape of shingle and sand with the great expanse of the sea itself as a backdrop. This shoreline is intermittently indented with inlets and estuaries where broad expanses of sheltered water are edged by an attractive mix of mudflats, marshes, wetland scrub and lowlying fields occasionally interrupted

Character Area 126 South Coast Plain



Oldlands Farm - Phase 2, Bognor Regis

Landscape & Visual Appraisal

by small creeks. Chichester Harbour, for example, is one of the largest natural harbours along the South Coast Plain with a diverse, landscape of numerous inlets interspersed with fairly open agricultural peninsulas and wind-sculpted woodlands. Picturesque harbourside settlements are typically clustered around small boatyards and marinas while numerous moored sailing boats dot the harbour edge. Other inlets provide contrast to this scene such as Pagham Harbour which retains an overriding sense of remoteness. This is due in no small way to the extensive tidal mudflats fringed by marsh vegetation and populated by large numbers of migratory birds. In contrast to the relative peace and remoteness of the Sussex harbours, the highly developed and historical Portsmouth Harbour is constantly busy with sailing boats, Cross channel ferries and naval warships.

In the lower plain, the wide scale and treeless farmed landscape is dominated by large arable fields. Views north are contained by the rising dip slope of the Downs, but views seaward are without definition and tend to lack depth and perspective. The urban fringes of the sprawling seaside resorts are pronounced, as is all urban development in this flat landscape. Some smaller-scale landscapes also exist within this part of the Plain such as the quiet hamlets, traditional village centres, pastures, and minor roads. The chalk quarries of Ports Down are notable features and can be seen from some distance, both from the adjoining land and at sea.

To the north and east of the area, the upper coastal plain combines the flat, regular patterns of large fields with the gentle forms and patterns blending into the openness of the lower dip slope of the South Downs. The landscape is varied, incorporating both open arable farmland and low density settlements, with a more well-wooded and semi-enclosed (somewhat suburban) character locally, particularly to the west of Chichester. Hidden, intimate valleys and woods are a distinctive characteristic of the upper coastal plain to the east, such as the valley of Binsted with its steep slopes and winding lane, and the ancient woodlands of the Tortington and Titmore Lane area. The latter are on the southernmost flanks of the Chalk outcrop of Highdown Hill which in itself is a unique and prominent feature on the plain.

Even where the plain is enclosed by a mixture of woodlands, the presence of windswept trees and occasional glimpses of the Isle of Wight reflect the generally open and exposed coastal location.



Geologically, this landscape is part of a broad plain of flinty marine and valley gravels extending several miles inland to the dip slope of the South Downs and the South Hampshire Lowlands. The plain slopes gently southwards towards the coast becoming almost imperceptible; at Hayling Island the

landscape is flat, save for the undulating sand dunes. The continuity of the Plain is interrupted by many streams and rivers which flow to the sea in the case of the river Hamble through a wooded valley. The superficial gravel deposits give rise to deep and well-drained brown earths which occur widely over much of the area while thinner chalky soils have formed over the distinctive Chalk outcrop of Highdown Hill.

The coastal plain comprises essentially two units, a lower plain between 10 and 15 metres AOD and an upper plain between 30 and 40 metres. Each of these plains is underlain by clayey, sands, and gravelly deposits of raised beach, head gravel and brickearth deposits laid down when relative sea levels were higher than at present. The Upper Raised Beach Deposits contain unequivocal evidence of 'Boxgrove Man', his artifacts and an extensive mammalian fauna indicative of pre-Anglian glaciation (>450,000 years ago) age. Boxgrove Man therefore provides evidence for the earliest known human occupation of the British Isles.

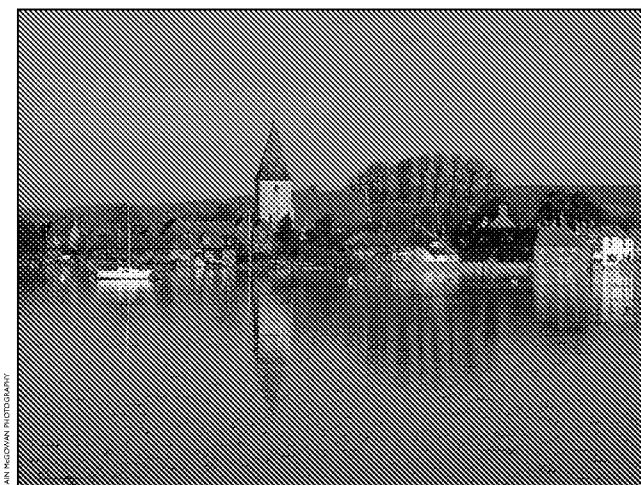


Long linear shingle beaches and sand dunes are dominant features which are enjoyed by residents of the highly developed hinterland.

The wave-cut benches underlying the upper and lower coastal plains are cut into folded Chalk and Tertiary strata preserved in a series of en-echelon synclines and anticlines. One of the latter forms Ports Down which makes a prominent backdrop to the coastal plain in the west.

The lower plain is cut by southward-facing streams, locally termed 'rifes', each of which have dry headwater extensions over the upper plain and on into the Chalk dip slope of the South Downs. Towards the west, the lower coastal plain grades into terrace flats attributed to the 'Solvent river', present in the area during low sea-level events of the Ice Age.

The plain is crossed by rivers such as the Arun, Adur, Hamble and Meon which locally form wide alluvial floodplains. Now flooded, gravel pits comprise some of the largest areas of freshwater in the region. Over the superficial deposits lies a range of fertile soils which combine with the flat terrain and favourable climatic conditions to result in high quality agricultural land.



Picturesque waterside settlements are attractive features of the less developed harbours.

The sand and shingle beaches have been shaped by the complimentary processes of erosion and deposition since the last major change in sea level, forming spits across river mouths and inlets. Loose sand has gradually formed modest sand dune systems in some places. Around Selsey, outcrops of brickearth and chalk have been eroded to form low cliffs. Chichester and Pagham Harbours are submerged shallow valleys, dominated by mudflats built up through the deposition and stabilisation of silt and mud transported by streams.

The three harbours of Chichester, Langstone and Portsmouth are interconnected by narrow channels and together form the largest intertidal area on the south coast.



The coastal area (particularly in and around Langstone Harbour) has disclosed extensive palaeoenvironmental evidence of early exploitation. It was, however, the Neolithic forest clearance and grazing, with the introduction of domestic animals and crops when the climate was warm and the land lightly wooded and accessible, that began to open the landscape.

The Romans recognised the agricultural potential of the coastal plain as reflected by their establishment of Chichester between 43 and 61 AD as an important new market town and military centre. Important villa sites, now inland but once on the coast, are still evident as is the Roman fort at Portchester.

By the 10th century, a system of rich agricultural estates

was established to exploit the coastal plain's fertile soils, along with the pasture on the adjacent Downs and the timber and stock rearing of the Wealden fringe further north. By this stage the South Coast Plain would have been developing its reputation as one of the most fertile and intensively cultivated areas of Britain; the prevalence of market gardens and smallholdings on the coastal plain today in Hampshire bears witness to this long history of cultivation.

From 1066, the Norman period saw inland Saxon towns develop outposts at New Shoreham and Littlehampton, from which goods could be traded more effectively. Agriculture was prospering and allowed the economy to diversify and the number of market towns to expand.

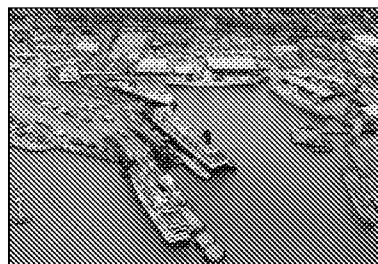
After an agricultural 'golden age' in the 19th century, cheap imports from America and southern Europe led to a decline in local cereal production and sheep grazing. The establishment of the railways brought new access to the coast and the seaside towns doubled in size by the end of the 19th century. Between 1837 and 1939 large parts of the coastline were built over as the tourist trade grew following the lead of Brighton. This had been prompted by contemporary writings on the health benefits of sea air and bathing. Originally served by paddle steamer from London, Brighton promoted the development of the railway and excursion fares from the capital. As demand increased so the smaller resorts such as Worthing, Littlehampton and Bognor Regis developed along with the rail link in the latter half of the 19th century.

Coastal zone and hinterland

Within the coastal margins, building materials were traditionally mixed largely reflecting the proximity of the sea for importing raw materials. Timber frames, flint, cob and thatch are all common. The medieval churches around the harbours are of flint and stone. Today, the character of settlement is mixed with traditional harbourside hamlets providing contrast with the recent holiday and residential villages that have sprung up along the shoreline and fringes of villages. Modern marinas and boatyards have also added to the harbour landscape. Urban expansion, industrial paraphernalia and caravan accommodation associated with the edges of seaside towns is prominent along the coastal margins.

On the lower coastal plain, settlements are dominated by suburban villages and the extensive seaside towns between Brighton and the edge of Southampton. Large reflective glasshouses, advertisement signs for farm shops, nurseries and equestrian facilities, golf courses, horse paddocks and industrial and institutional buildings all bring a suburban character, which confuses the definition between the urban centres and their rural hinterland.

The ancient market town and compact cathedral city of Chichester sits at the centre of this character area, with its, distinctive spire forming an important landmark. To the east, numerous villages form a fairly continuous residential sprawl, although this pattern includes some traditional flint hamlets and farm buildings. Along Southampton Water, smallholdings and bungalows are scattered but merge with the increasingly suburban outreaches of Fareham towards the Solent. Several large offices and residential tower blocks and gas holders in the larger towns dominate long-distance views.



The natural harbours have lent themselves to development leading to a thriving maritime trade.

To the north at the base of the Chalk dip slope, settlement is more dispersed. A network of typically-winding secondary and minor roads, usually hedged or wooded, links together small flint villages, isolated dwellings and farm buildings, and the mixed housing styles of village fringes.

Many villages have retained their attractive medieval and late medieval core often arranged around a green or market area and the varied vernacular architecture displays strong relationships with its region.

Coastal zone

Along the coastline itself, the vegetation is typified by a scanty covering of low growing, often mat-forming, specialised plants which can tolerate the saline conditions and mineral substrate. The shifting, dry shingle, mud and sands of the shoreline are particularly hostile to the establishment of vegetation and are generally devoid of cover, except where shingle-loving species and sand dune grasses have colonised naturally or by introduction. On the newly-formed ground of the mudflats in the inlets, pioneering intertidal marsh communities have colonised and these demonstrate a well-defined succession of plant types and species towards the land. Although not a dominant characteristic, scrub and small areas of wind-sculpted woodland persist on some coastal fringes, particularly around the sheltered inlets. Oldpark Wood, near Bosham Hoe, is a significant example.

Semi-natural communities occur almost as 'islands' within the arable land which project into the peninsulas from the lower coastal plain. This is a fertile area which supports intensive arable farming and horticulture, with some dairy, beef and poultry. Areas of medium-quality agricultural land where soils are shallow, stony and poorly drained, often support good quality permanent grassland such as the Arun floodplain.

The thicker gravel deposits support a mixture of high and medium quality soils which are intensively farmed where the soils are flintier. The area also supports mixed farming, including pig rearing, with horse paddocks and grazing on the poorer land.

The lower coastal plain, particularly in the west, is typically a homogeneous landscape of large open fields with few trees or hedgerows. Drainage ditches, wire fences or low banks are more usual as field boundaries. The sense of exposure within this open landscape is heightened by the odd stunted and windswept oak that stands along the lines of former hedges. A small number of isolated coastal heaths and woodlands occur on the open plain, with shelter belts of pine, oak or poplar shielding buildings from exposure to the wind.

In the upper coastal plain, tree cover varies. There is a strong network of small and medium-sized broadleaf woodlands, including some which are ancient and semi-natural, well-linked by hedgerows and garden exotics to provide an enclosed field framework. The landscape pattern comprises coniferous plantations, some ancient woodland, and a strong frame of small fields, woods and hedgerows. This quite high degree of vegetation cover is especially notable in contrast to the relatively treeless open lower coastal plain. In many places

woodland accentuates the prominence of elevated towns, as in the case of Arundel where the well-wooded landscape separates the town from the suburban villages to the west.

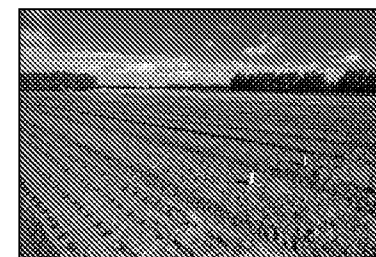
Coastal zone

- ✦ Mineral extraction, landfill and flooded gravel pits.
- ✦ Small villages engulfed by the expansion of urban coastal developments.
- ✦ Possible, pressure for new service areas along A27/M27 in the future.
- ✦ Ribbon development, holiday camps and caravan parks.
- ✦ Pressures for recreational uses and marina/harbour developments along the coast.
- ✦ Development of large modern glasshouses.
- ✦ Construction of rock islands as coastal protection measures immediately off the coast have a major visual influence.
- ✦ Coastal dredging operations may exacerbate erosion of the coastal edge resulting in the loss of distinctive landscape features such as coastal marshes.
- ✦ Future changes in sea level may become an important issue given that the South Coast Plain's flat low-lying nature makes it particularly vulnerable to rises in relative sea level.
- ✦ Loss of hedges and hedgerow trees owing to field enlargement.
- ✦ Recent significant loss of tree cover due to Dutch Elm disease and storm damage.

Coastal zone

- ✦ The conservation of woodlands and new planting should be considered where appropriate.
- ✦ There are opportunities for the reversion of arable fields to grazing pasture.
- ✦ The conservation of wetlands including those of the intertidal zone is important to the area.
- ✦ There is scope for further restoration of field hedges and hedgerow trees under appropriate agri-environmental land management schemes.

- ✦ Coastal zoning and management would balance nature conservation, landscape and recreational interests.



Fertile soils are intensively farmed, with a prosperous market garden and horticultural trade reflecting the relatively warm temperatures and long growing season.

Coastal zone

Millward R and Robinson, A (1973), *South-east England The Channel Coastlands*, Macmillan, London.

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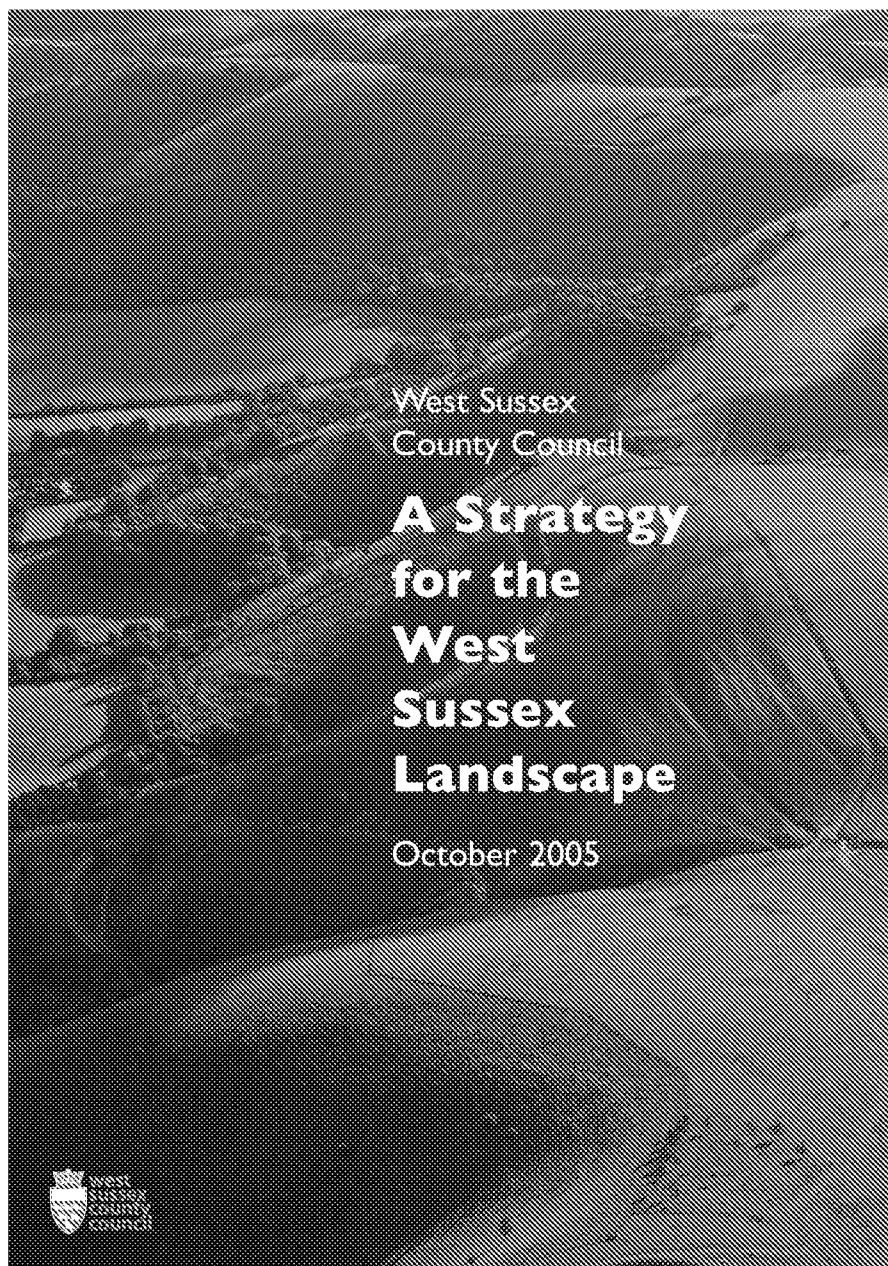
Langstone Harbour Board Langstone Harbour Management Plan February 1977.

Coastal zone

AOD: Above Ordnance Datum

en-echelon: arranged in a stepped formation in parallel lines

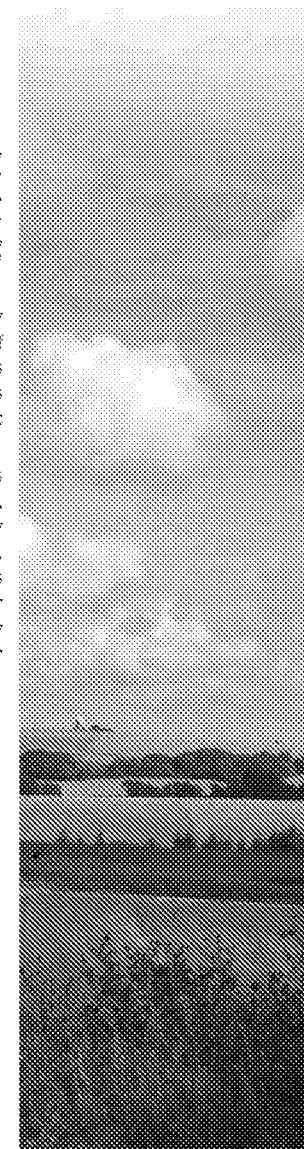
substrate: surface on which organism grows



COUNTY-WIDE LANDSCAPE GUIDELINES

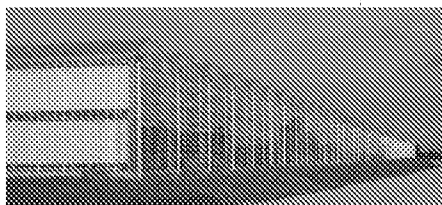
This section translates the five key Strategy objectives into a series of County-wide Landscape Guidelines for dealing with the likely changes impacting on the landscape of West Sussex.

These will be used by the partners to instigate actions which, in turn, will realise the vision. The County Landscape Character Assessment, to be published separately, describes individual Landscape Character Areas and contains complementary Land Management Guidelines for each of them.



Landscape Guidelines for commercial and industrial development including rural diversification

4.4 Supporting and maintaining the social health and economy of the County is a prime policy aim. Under the first Strategy objective, it will be important to ensure that, as with new housing, the location, design and setting of new commercial and industrial buildings are handled sensitively to complement and strengthen landscape character. Guidelines for commercial and industrial development including rural diversification include:



Commercial greenhouses on the South Coast Plain

- ensure new land uses and development associated with rural diversification projects relate well to and retain key existing landscape features and minimise modification to existing landforms and vegetation cover.
- ensure that new development makes the most of opportunities for conservation, restoration and enhancement of existing buildings in keeping with local historic and architectural character.
- locate buildings and associated infrastructure to avoid loss of views on and off the site, intrusion on to sensitive ridgelines or prominent slopes and other highly visible locations, and to minimise damage to the settings of settlements.
- retain key landscape features on new development sites such as woodland, watercourses and hedgerows, to aid the new landscape structure and setting of the site.
- ensure that the design of buildings and structures is of high quality with clean, elegant lines. Consider massing, form, height, colour, ensure that the design, layout and ground modelling of new development takes account of the "grain" of the adjoining landscape, and avoid visual clutter including signage on all elevations.
- orientate and position buildings to minimise the landscape impact of servicing them.
- co-ordinate building colour to secure a complementary effect between buildings and the surrounding landscape (for example, matt neutral colours minimising reflectivity).
- secure the use of mainly native tree, woodland and hedge planting to screen developments sufficiently and integrate them with the wider landscape. This may include substantial advance woodland planting on and off-site, in wide belts, on land secured specifically for this purpose.
- ensure site entrances are designed to fit within the landscape and use discreet signage.
- minimise the impact of lighting used in development in the landscape.
- secure where appropriate habitat creation and enhancement both on and off site as a requirement of new development.
- incorporate where possible intact historic landscape and visible archaeological features within landscaping schemes.

Landscape Guidelines for conserving and increasing hedgerows and shaws

4.22 Hedgerows and shaws (broad woodland belts left behind when fields were cut out of woodland) are a strong, defining characteristic of much of the County. The County Council's thirty-year record of land use and habitat change shows the persistence of dense, intricate networks of hedgerows and shaws throughout much of the Low Weald (except where significant Parliamentary enclosure and twentieth century hedgerow removal occurred) and within the non-wooded parts of the High Weald and some areas of the Greensand ridges. However, strong hedgerow patterns are not characteristic either of the South Downs or of much of the South Coast Plain although in both areas there are exceptions that prove the rule, in the lower downland valleys and slopes and on parts of the Manhood peninsula.

4.23 The conservation (and increase in the length) of hedgerows and shaws in many areas of the County is therefore an important part of the fourth Strategy objective. Guidelines include:

- conserve, enhance or restore the hedgerow and shaw network to reinforce existing field patterns and enhance the character and unity of the landscape.
- conserve hedges that may not fulfil the criteria of the Hedgerows Regulations including prominent hedges and those along roadsides.
- manage hedges to ensure they are stockproof, visually interesting and valuable for wildlife by using traditional management methods including hedge-laying, coppicing and trimming, rather than repeated, severe cutting back.
- encourage an increase in new hedgerow trees by retaining self-sown saplings and planting new trees.
- establish new hedgerows and fill gaps in fragmented ones, ensuring mixes of numerous native shrub and tree species typical of each national Character Area, good width and density, with associated banks and ditches appropriate to local character.



Newly-laid hedge

- attempt to link hedgerows wherever possible to create wildlife corridors.
- ensure that resources are available for the care and maintenance of all new planting.
- support the objectives and targets of the Sussex Hedgerow Habitat Action Plan.
- retain existing ancient field and driveway bank and ditch boundaries.

Landscape Guidelines for improving the rural urban fringe

4.16 The rural urban fringe is that area of land surrounding the settlements of the County. In many areas, the agricultural landscape in particular is evidently degraded and opportunities are not always realised to link settlements with countryside nearby and areas further afield. The County Council and its partners are aware of the vision for connecting town and country in the pursuit of sustainable development contained in *The Countryside in and around Towns* published by the Countryside Agency and the Groundwork Trusts in January 2005. The vision encourages a whole view of the rural urban fringe, seeking co-ordinated effort through area action plans and other initiatives. The pursuit of this integrated view is therefore an important part of the third Strategy objective. Guidelines for improving the rural urban fringe include:

- give priority to landscape enhancement on the fringes of urban areas where the landscape is degraded and where there are pressures for development, recreation and other new land uses.
- encourage the planting of new woodlands and hedgerows where appropriate to reinforce existing or former landscape character, and create and enhance wildlife habitats.
- encourage the preparation of community-led landscape and environmental improvement strategies for key urban fringe areas.
- respect and incorporate intact historic landscape and visible archaeological features within landscape enhancement schemes, so promoting a sense of place and continuity.



Urban fringe landscape adjoining Gatwick Airport

Landscape Guidelines for conserving river environments, ponds, other water bodies, wetlands and coastal habitats

4.26 Water bodies form a wide variety of types in many different kinds of locations, most of them having value for wildlife, some particularly so. Their conservation is an important part of the fourth Strategy objective. As well as on the coast (where the County Council and its partners are pursuing Shoreline Management Plans), water bodies and wetland also contribute strongly to landscape character, particularly the form and aspect of rivers and streams, the particular qualities of freshwater marsh, and the presence of ponds of varying types and sizes, from dewponds to artificial hammer ponds and reservoirs. Measures to conserve and increase freshwater marsh and ponds are particularly important, as these habitats are in decline. The County Council and its partners will continue to liaise closely with the Environment Agency with regarding the landscape implications of implementing inland flood management strategies. Guidelines for conserving water environments include:

- support initiatives which restore, conserve and enhance the natural features of river and stream environments, including river and stream edges and the diversity of features such as meanders, shallows, backwaters, and small river cliffs.
- support the use of "soft" engineering techniques where channel protection and modification works are deemed essential.
- encourage the inclusion of appropriate semi-natural habitats between improved farmland, development and the edges of watercourses.
- enhance the appearance and setting of watercourses by using varied bank profiles, and where appropriate riverside trees, wet woodland and scrub, in keeping with local landscape character.
- re-instate where possible natural watercourse alignments, reintroducing features such as meanders, cut-offs and multiple courses, whilst respecting and promoting understanding of the visible traces of ancient water management and water transport systems, such as water meadow ditch systems, ancient mill ponds and mill races, Wealden furnace and forge ponds, spillways and tailraces and disused canal cuts and lock chambers.
- pursue traditional methods of ditch clearance on a "little and often" basis, ensuring wildlife diversity using a range of channel widths and depths.
- maintain the banks of watercourses on a rotational basis to avoid clearance of vegetation over extensive stretches.
- protect, conserve and enhance village ponds, other ponds and open areas of water; and dewponds, taking account of the specific conservation requirements for each kind of pond feature.
- conserve and enhance traditional grazing marshes and water meadows by appropriate water level and livestock grazing management.
- encourage the conservation of ponds and areas of open water, restoring where possible neglected ponds on farmland and in villages whilst retaining ancient features of former pond use, such as pumps and sluices.
- support initiatives which protect, conserve and enhance other kinds of wetland (for example, bogs, marshes, wet meadows), and tidal and coastal habitats.



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Sheet SC9: Chichester to Yapton Coastal Plain

- [The West Sussex Landscape: Chichester to Yapton Coastal Plain - Land management guidelines](#)
- [Overall character and key characteristics](#)
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The West Sussex Landscape: Chichester to Yapton Coastal Plain - Land management guidelines

Regional Character Area - South Coast Plain

The area covered by the Sheet is derived from:

Chichester to Shoreham Coastal Plain (C1) Landscape Character Area as defined in the unpublished West Sussex Landscape Character Assessment (November 2003).

The guidelines should be read in conjunction with:

- County-wide Landscape Guidelines set out in [A Strategy for the West Sussex Landscape](#) (October 2005) published by West Sussex County Council.
- Climate Change Adaptation Management Plan, 2006.
- [South Downs Shoreline Management Plan](#) - Beachy Head to Selsey Bill (under review).
- [Black Poplar Species Action Plan for Sussex](#), June 2005.

If you would like to print these guidelines in A3 format, you can [download the file here](#) (PDF, 2 pages, 442KB).

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Overall character and key characteristics

Overall character

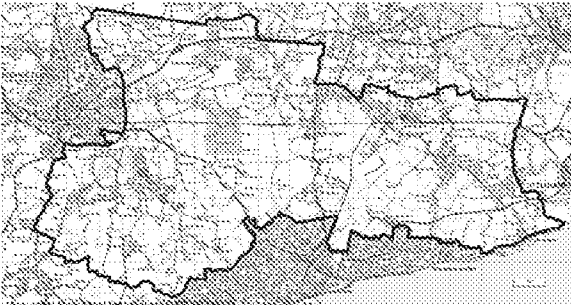
This Character Area extends from Chichester in the west to the edge of the Arun Valley in the east, and around Bognor Regis to the south. Over time a large part of this area has been reclaimed from the sea, and remains below the current high spring tide level. It comprises a mainly flat, open landscape crossed by meandering rife. Dominated by highly productive arable fields and modern farm buildings, it has a fragmented hedgerow and hedgerow tree pattern. The spire of Chichester Cathedral is a widely visible feature. Rows of

www.westsussex.gov.uk/living/environment_and_planning/planning/the_county_plan/west_sussex_character_project/land_management_guidelines/the_south... 1/5

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West Sussex County Council: Sheet SC9: Chichester to Yapton Coastal Plain

large light reflecting glasshouses, equestrian facilities, horse paddocks and industrial buildings, for instance in the Ford and Tangmere areas, are strong suburban elements. Where these occur, they create visual confusion and poor definition between town and country side, and erode distinctive landscape character. Major suburban settlements in the area are Tangmere, Barnham, Yapton, and Westergate. In contrast, there are areas of a smaller scale, more varied rural landscape with quiet hamlets and traditional villages enclosed by small pastures.



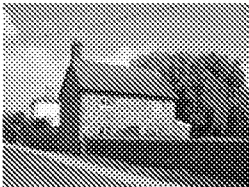
Key Characteristics:

- Low lying flat open landscape
- Meandering rife and straight drainage ditch systems, with associated unimproved grassland and edged by reed beds
- A low density of hedgerows and hedgerow trees with occasional shelterbelts
- Large-scale arable farming and market gardening. Extensive farms with both traditional and modern farm buildings and silos
- Clusters of glasshouses
- Scattered, historically nucleated villages with mixed building materials of flint, brick, half timber and stone
- Large farmsteads along roads, and on dead-end tracks
- Long views to Arundel, the Downs and to the distinctive spire of Chichester Cathedral
- The relatively open character of much of the area allows long views so that village church towers are important landmarks in views
- Frequent urban fringe influences of horse paddocks, light industry and disused airfields, with busy minor and major roads
- The urban fringes associated with Bognor are particularly obvious, with sporadic urban development in suburban settlements of Tangmere, Barnham, Yapton and Westergate
- Large gravel pit lakes around the edge of Chichester
- Few trees or hedgerows, partly as a result of Dutch Elm Disease, from the 1970s and the Great Storm of 1987 and overall high quality agricultural land, although, where they do exist, they form prominent features
- Light industry in the country side at Ford and Tangmere

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Historic features

- Area settled and resources exploited from prehistoric times onwards. Few visible prehistoric monuments apart from crop marks
- Distinctive medieval manor houses at Shipney and Barnham Court
- Important medieval churches with spires which distinguish this otherwise flat landscape
- Large regular fields, mostly the product of Parliamentary enclosure
- Remains of the line of the Arundel to Chichester Canal. This formed part of an important late 18th century barge route
- Excavations at Westhampnett, in advance of the by pass, demonstrated that Roman, iron age and earlier settlement evidence may lie just below plough soil level
- At Aldingbourne, beside the Rife, lie the remains of a medieval castle. In those days Aldingbourne Rife was a navigable waterway



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Oldlands Farm - Phase 2, Bognor Regis

Landscape & Visual Appraisal

28/05/2013

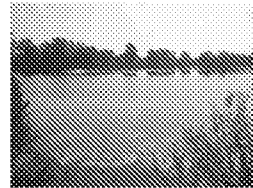
West Sussex County Council: Sheet SC9: Chichester to Yapton Coastal Plain

- Disused airfields, such as at Tangmere and Yapton

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Biodiversity

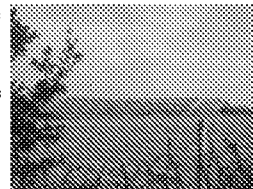
- Semi-natural habitats are scarce due to intensive arable agriculture
- Hedgerow pattern is fragmented with occasional isolated woods, for example, Hunston Copse (Site of Nature Conservation Importance, SNCI)
- Low lying species-rich grasslands adjacent to the rifes, artificial water bodies of Chichester canal (SNCI) and gravel pits together with remnant semi-natural broadleaved woodlands form pockets of high nature conservation importance
- Occasional species-rich meadows along rifes, for example, Kingston Manor meadows, Runcton
- Artificial lakes of the Chichester Gravel Pit complex are particularly important for wintering and breeding birds as the largest collection of inland water bodies in the county
- Occasional village ponds and greens provide local havens for wildlife
- Invasive floating penny wort in Pagham Rife



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Change - Key issues

- Urban development pressures, especially in the gaps between settlements and on the edge of Chichester
- Major road improvements
- Loss of mature elm trees in the 1970s and 1980s due to Dutch Elm disease
- Loss of floodplain and wet woodland due to changes in agricultural drainage practices
- Loss of tree and hedgerow cover from agricultural intensification since World War II
- Conversion of agricultural buildings to light industrial uses
- Farm diversification and garden centres leading to introduction of signs and fencing
- Introduction of large scale industrial buildings and glasshouses with distribution sheds
- Derelict glasshouses
- Climate change may increase the risk of storm surges associated with flooding. This will have consequences for inter-tidal habitats, increasing pressure for possibly insensitive coastal defences
- Management and possible realignment of sea defences due to predicted sea level rises will have significant implications for landscape over the coming decades



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Landscape and visual sensitivities

Key sensitivities are:

- Key views to the South Downs, Chichester Cathedral and Arundel
- Fragmentation and loss of hedgerows and connections between hedgerow and woodland
- Replacement of mature treescape
- Changes in drainage patterns
- Industry in the country side associated with horticulture and light industry, resulting in large clusters of glasshouses and industrial buildings
- Loss of archaeological remains to ploughing
- Development on settlement edges of Bognor and suburban settlements of Tangmere, Barnham, Yapton and Westergate
- Loss of distinction between different settlements due to urban expansion
- Changes in transport infrastructure due to urban development pressures
- Managed retreat of the coastline may be particularly influential in the future, providing opportunities for the creation of new



www.westsussex.gov.uk/living/environment_and_planning/planning/the_county_plan/west_sussex_character_project/land_management_guidelines/the_south... 3/5

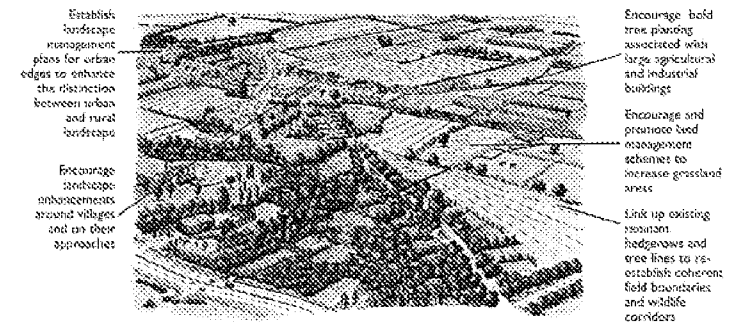
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coastal and inter-tidal habitats, and could result in a more naturally functioning landscape

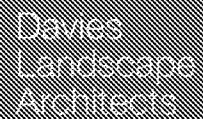
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Land management guidelines



Conserve the significant views to Chichester Cathedral and the South Downs.

- Create a new, large scale tree and hedgerow framework which complements the open intensively farmed landscape, whilst maintaining significant views of Chichester Cathedral, the South Downs and local features
- Maintain and strengthen field boundaries such as hedgerows and shelterbelts
- Link up existing remnant hedgerows and tree lines to re-establish coherent field boundaries and wildlife corridors
- Encourage a full tree survey of the area with a view to conserving and managing existing feature tree groups and individuals
- Encourage and promote land management schemes to increase species rich grassland areas
- Promote management and establishment of grassland regimes of grazing, hay cutting and silage
- Establish landscape management plans for urban edges, notably Bognor Regis, to enhance the distinction between the urban and rural landscape
- Restore and strengthen the landscape of the gaps between settlements
- Encourage landscape enhancements around villages and on their approaches
- Establish new vegetation features by the planting of hedgerows and tree clumps in field corners and along roadsides, especially those approaching settlements
- Encourage the planting of shelter belts around horse paddocks, using native species, to give visual and wildlife benefits
- Promote sympathetic design of new road schemes, particularly associated with transport infrastructure for Bognor Regis
- Encourage the production of a colour and design study for new and existing agricultural and industrial buildings
- Encourage bold tree planting associated with large agricultural buildings, glasshouses and industrial buildings to attempt to assimilate them into the landscape more satisfactorily
- Restrict extensive areas of tree planting to poorer quality agricultural land
- Encourage the replacement or restoration of derelict glasshouses where these appear detrimental to the landscape
- Maintain and enhance the landscape and biodiversity of rifes and other existing habitats. Re-profile banks and encourage more diverse flora by lengthening clearance cycles
- Enhance the visual prominence of rifes through the establishment of waterside vegetation features
- Maintain, restore and enhance floodplain woodland and associated species, including native black poplar, where appropriate



Oldlands Farm – Phase 2, Bognor Regis

Landscape & Visual Appraisal

May 2015

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