

11. LANDSCAPE AND VISUAL IMPACT

11.1 Introduction

Description and Scope of Assessment

11.1.1 Floyd Matcham (Landscape Architects) has undertaken a Landscape and Visual Assessment of a proposed scheme for residential and associated development at Barton Farm, Winchester, Hampshire (the application site), for CALA Homes (South) Limited (CALA). The Practice has provided professional landscape consultancy services for CALA in connection with proposals for residential development schemes at Barton Farm since 2001, and undertook a Landscape and Visual Assessment of a similar scheme in the period 2001-2004. Accordingly, relevant baseline work has been reviewed and updated in 2008 and 2009 for this current assessment.

11.1.2 The assessment describes the baseline landscape condition of the application site and surrounding area (collectively, these form the study area), and its visibility within the wider landscape framework. The application site comprises the land lying within the EIA boundary, as defined in Chapter 1 of this Environmental Statement and shown on the various figures at the end of this Chapter. The application site excludes the buildings of Barton Farm (lying on Andover Road) and Well House Farm (lying on Well House Lane), but reference may be made to these locations in the assessment.

11.1.3 This Chapter of the Environmental Statement also incorporates an updated Arboricultural Survey of the existing trees on the application site and an Arboricultural Impact Assessment, prepared by TMC LLP (Arboricultural Consultants). The survey has been carried out in accordance with the recommendations of BS5837 (2005). Appendix 11.1 comprises a Tree Survey Schedule and a Group Tree Survey Schedule. These identify species, key characteristics and category grading of surveyed trees or tree groups. The Arboricultural Survey includes include tree constraints plans that identify the locations and canopy spreads of existing trees and tree groups. They also show root protection areas of individual Category 'A' and Category 'B' trees. Finally Appendix 11.1 includes an Arboricultural Impact Assessment of works that will affect existing trees.

11.1.4 The main findings of the updated Arboricultural Survey are summarised under Baseline Conditions in Section 11.5 below.

11.1.5 Following preparation of a Masterplan, a Landscape and Visual Impact Assessment (LVIA) has been undertaken of the anticipated landscape and visual effects that would arise from the proposed development, including the requirements for mitigation and remediation of any secondary effects, and for monitoring.

11.1.6 The structure of the assessment follows the requirements of the Town and Country Planning (England and Wales) (Environmental Impact Assessment) Regulations, 1999.

Surveys and Consultations

11.1.7 The following survey work has been undertaken to understand and evaluate the baseline conditions in the study area.

11.1.8 Field survey visits to the study area were undertaken at all seasons of the year between Winter 2002 to Summer 2003 to gain full familiarity with the site, to map landscape features, existing land uses and management characteristics, and to obtain a photographic record from representative viewpoints. Field survey visits included full walkovers of the application site, including site and internal boundaries, and detailed study of the character of the surrounding area, as observed from public roads and footpaths. The landscape character and visibility of the site from distant viewpoints was also assessed. A further field survey visit was undertaken in September 2008 and the photographic record of the application site itself was updated.

11.1.9 Desktop study of all relevant Ordnance Survey mapping and the detailed land survey of the site were undertaken. Relevant statutory documents were examined, including Planning Policy

Guidance Notes, the South East Plan, adopted Local Plan Environmental policies and the Winchester District Landscape Character Assessment. Background documents have been studied, including "Winchester City and its Setting" (published July 1998). This was a detailed study commissioned by Hampshire County Council, Winchester City Council and other interested parties to inform the review of the Local Plan.

11.1.10 Other relevant documents prepared and published by Winchester City Council have been studied, notably the evidence base assembled for the LDF study of Winchester strategic sites (comprising *Landscape Site Appraisal* and *Landscape Sensitivity and Visibility Constraints Map*) and the *Sustainability Appraisal Framework Objectives*). The information and findings contained in these documents is closely mirrored by the findings of the baseline work (set out in section 11.5 below) that have informed masterplan development and this landscape and visual assessment.

11.1.11 Following its own external and internal consultations and following submissions by CALA (Homes) South, Winchester City Council published its Scoping Opinion for an Environmental Impact Assessment on 13 February 2002. A further Scoping Request in relation to this Environmental Statement was submitted by RPS to Winchester City Council on 2nd March 2009. The Scoping request identified that landscape and visual impact would be one of the main environmental effects arising from the proposed development and it set out the nature of the work that is covered by this chapter of the ES. The Council's Scoping Opinion was published on 21st April 2009 and this confirmed that an assessment of landscape and visual impacts would be required. The requirements covering landscape and visual impact issues, as set out in this Scoping Opinion have been incorporated into this assessment.

11.1.12 Consultations were carried out with the Landscape and Planning Officers of Winchester City Council prior to the submission in 2004 of an Environmental Statement that accompanied a previous application by CALA Homes (South). Informal discussion was held with Officers at that time to determine the content of the baseline information that CALA Homes (South) subsequently submitted to the City Council in the document "Summary Landscape Appraisal" (Floyd Matcham, June 2002). The Summary Landscape Appraisal has been updated and now forms the basis of the Statement of Baseline Conditions in this Environmental Statement.

11.1.13 Further consultations have been carried out in 2009 with the Landscape and Planning Officers of Winchester City Council, and the revised assessment methodology (see Section 11.3 below and Appendix 11.2) has been submitted to the City Council.

Techniques and Methodology for Data Evaluation

11.1.14 The assessment has been undertaken in accordance with the guidance contained in the second edition of the "*Guidelines for Landscape and Visual Assessment*" (GLVIA), published by the Landscape Institute and the Institute of Environmental Management and Assessment. This was a requirement set out in the City Council's 2002 Scoping Opinion.

11.1.15 A detailed Statement of Methodology for conducting the Landscape and Visual Impact Assessment for the 2004 Environmental Statement was previously agreed with Winchester City Council. The methodology set out in Section 11.3 and Appendix 11.2 below is based closely on the methodology previously agreed but certain technical refinements have been incorporated to reflect current best practice.

Legislation and Key Criteria

11.1.16 The United Kingdom legislation providing the statutory framework for Environmental Impact Assessment provides the basis for the methodology set out in the GLVIA. In principle, the government considers that this statutory framework complies with the requirements of the **European Landscape Convention (ELC)**, which came into force in the UK on 1 March 2007. However, there is recognition of the need to strengthen performance through policy and practice.¹ In the particular circumstances

¹ Paragraph 1.4 of the framework for implementation of the European Landscape Convention, published by Natural England, October 2007.

of this EIA, while there are no formal or statutory procedures laid down for conducting a Landscape and Visual Assessment, it is considered that the methodology summarised in section 11.3 (and detailed at Appendix 11.2) meets the requirements of the articles of the convention, particularly Article 6, subsection C which deals with specific measures for identification and assessment, and Article 6 subsection E which deals with implementation.²

11.1.17 The methodology adopted for undertaking the LVIA has also been evaluated against the *'Checklist for integrating the intent of the ELC into plans policies and strategies'* in the European Landscape Convention Guidance Part 2, published in April 2009 by Natural England. This guidance recommends seven principles which should be followed to ensure that plans, policies and strategies prepared by a range of organisations do comply with the ELC.

11.1.18 In the particular case of a site-specific LVIA, Principle 4 – *'Understanding the landscape baseline'* - is particularly relevant. The guidance notes that an understanding of the landscape is essential for developing any plan, strategy or policy which has a direct or indirect impact on landscape. Extensive landscape baseline work has been undertaken over a period of several years by CALA Homes and the local authority. This has provided a very thorough understanding of the landscape baseline to inform the design of the masterplan and the landscape strategy.

11.1.19 Principle 6 - *'Integrate Landscape'* - has also been applied and landscape design has been an integral part of the masterplanning process for the project. Finally, Principle 7 – *'raise awareness of landscape'* – has also been followed in the masterplanning and assessment processes. During the masterplanning process, there has been extensive public consultation and involvement with local residents to raise awareness of how landscape issues have been addressed in the design and assessment process.

11.1.20 The key criteria, against which assessment and evaluation of landscape and visual effects are made, are described in detail in Section 11.3 below. In summary, the assessment must identify the extent to which the proposed development would change both the character of the landscape itself, and the way in which that character is perceived and valued by those who see it. This defines the important distinction between landscape and visual effects. Identified effects are assessed separately by reference to two criteria:

- the sensitivity of the affected resource; and
- the magnitude of the impact.

11.1.21 The assessment should identify the opportunities for reducing negative impacts through good design so that secondary impacts are minimised and the requirement for remediation of secondary impacts is minimised.

Main Assumptions

11.1.22 For the purposes of this assessment, the following main assumptions are made. More information on these assumptions is contained in Section 11.3.

- The baseline conditions set out in this Environmental Statement do not change significantly between the submission date and the date of determination of a planning application.
- The principal elements of the development, including heights of building groups, the locations of planting belts and positions and designs of road junctions, will follow those shown on the Masterplan that accompanies the Environmental Statement.
- The entire development is completed.
- New plantings are assumed to be made at the completion of development, and no assumptions are made regarding advance planting.
- Ground, soil and climatic conditions permit new native tree and shrub plantings to be established and to grow at a comparable speed to rates of growth currently experienced in the locality.

² See Annex 2, *ibid.*

11.2 Site Description

11.2.1 The application site comprises land lying immediately north of Winchester, situated to the east of the Harestock residential area. The southern boundary adjoins the existing built-up area of the city.

11.2.2 Andover Road forms the western site boundary and the London–Southampton railway line forms the eastern boundary. On its northern side, the site adjoins Well House Lane.

11.2.3 The site is in agricultural use mainly under arable cultivation. The physical and visual characteristics are described in Section 11.5 and in the accompanying figures at the end of this Chapter.

11.2.4 The site is not covered by any statutory landscape designations but the boundary of the recently-designated South Downs National Park follows the western edge of the River Itchen water meadows about 350m to the east of Worthy Road. The plans referred to in the description of baseline conditions (Section 11.5) show those parts of the City Council's administrative area now lying within the National Park. Part of the study area, lying to the east of the railway line lies within a non-statutory landscape designation (Local Gap).

11.2.5 While indirect, temporary and cumulative impacts will be assessed, this Landscape and Visual Assessment is primarily concerned with assessing the significance of:

- the permanent landscape impacts arising from the proposed residential development scheme on land to the west of the railway line; and
- the permanent visual impacts that may potentially affect visual receptors in the primary and secondary visual envelopes identified within the study area (see Section 11.5 below).

11.3 Assessment Methodology (Summary)

11.3.1 The full assessment methodology is set out at Appendix 11.2. The following is a summary of the main stages of work.

11.3.2 The methodology for undertaking the Landscape and Visual Impact Assessment (LVIA) is based closely on the guidance contained in the revised (Second Edition) 'Guidelines for Landscape and Visual Impact Assessment' (GLVIA), published in 2002 by the Landscape Institute and the Institute of Environmental Management and Assessment. The methodology provides for the separate assessment of landscape and visual impacts.

11.3.3 The sequence of work stages to undertake the LVIA comprises:

- the identification of landscape and visual receptors and their sensitivity to change, derived from the assessment of baseline conditions;
- the identification of the temporary and permanent activities and changes that are predicted to arise from the proposed development, derived from the masterplan and other data that indicate the location, form and character of the proposed development;
- the identification, using a landscape and visual impact identification matrix, of potential temporary and permanent landscape and visual impacts;
- definition of a scale of criteria for determining the magnitude of landscape and visual changes;
- definition of significance thresholds, based on the magnitude of impact on landscape and visual receptors of differing sensitivities, for determining the significance of impacts;
- determination of the significance of potential temporary and permanent landscape and visual impacts before mitigation;
- analysis of the significant impacts and consideration of mitigation measures (including consideration of mitigation strategies); and
- identification and determination of the significance of residual temporary and permanent landscape and visual impacts following the application of mitigation measures.

11.3.4 The LVIA is concluded by presentation of summary tables of residual impacts covering:

- residual temporary landscape impacts
- residual permanent landscape impacts
- residual temporary visual impacts
- residual permanent visual impacts

11.4 Planning Policy

11.4.1 The following policies of the South East Plan are relevant to consideration of the landscape and visual impact of the proposed development at Barton Farm. For brevity, the full text of these policies is not reproduced here, but a summary of the policy objective is given:

- CC1: Sustainable Development
- CC2: Climate Change
- CC4: Sustainable Design and Construction
- CC8: Green Infrastructure
- CC6: Sustainable Communities and Character of the Environment

11.4.2 The following policies of the “saved” Winchester District Local Plan Review (Adopted 2006) are relevant to consideration of the landscape and visual impact of the proposed Winchester MDA. Again, for brevity, the full text of these policies is not reproduced here, but a summary of the policy objective is given:

- DP1: Design Statement Requirement for New Development
- DP3: Design Principles and Criteria
- DP4: Maintaining and Enhancing the District’s Townscape and Landscape
- DP5: Design of Amenity Open Space
- DP6: Sustainable Development
- CE2: Protection of Local Gaps
- CE3: Development in Local Gaps
- CE5: Protection of Landscape Character
- CE10: Mitigation for Loss of Habitats of Nature Conservation Interest Through Development
- CE28: Recreational Development in the Countryside, Including Local Gaps
- W1: Protecting the Special Character and Landscape Setting of Winchester
- MDA2: Allocation of the North of Winchester Reserve MDA and Masterplan Requirements.

11.4.3 The Winchester District Core Strategy, which forms part of the Winchester District Development Framework, is now in course of preparation. When adopted, the Core Strategy will supersede the “saved” policies of adopted Local Plan. The City Council’s Preferred Option was published in May 2009 and the following *Preferred Option* policies are relevant to consideration of the landscape and visual impact of the proposed development at Barton Farm. The full text of the policies is not repeated but a summary of the policy objective is given:

- SS1 *Sustainable Development Principles*
This policy sets out the principles for sustainable development, including full regard for environmental assets and green infrastructure opportunities, that will apply to all development proposals
- SS2 *Requirements for major large-scale developments*
This policy sets out detailed requirements for large-scale developments including the requirement to protect and strengthen locally-important landscape features and to provide green infrastructure.
- WT2 *Strategic Housing Allocation Barton Farm*
The allocation of land at Barton Farm for 2000 houses, together with supporting uses.

- CP5 *Green Infrastructure*
This policy provides support for development that provides multifunctional and well-managed green infrastructure.

- CP8 *Cultural Heritage and Landscape Character*
New development is required to recognise, protect and, where appropriate, enhance distinctive landscape and cultural heritage.

- CP9 *South Downs National Park/ Area of Outstanding Natural Beauty*
Development within or affecting the Area of Outstanding Natural Beauty and the proposed South Downs National Park is required to protect and enhance the landscape value of the area.*

(*Designation of the South Downs National Park was formally confirmed on 12 November 2009).

- CP11 *Ensuring high quality sustainable design*
New development (including the accompanying landscape framework) is expected to meet the highest standards of sustainable design.

11.4.4 Winchester City Council and Hampshire County Council published the “Winchester Landscape Character Assessment”, as Supplementary Planning Guidance, in March 2003. This assessment identifies and describes the characteristics of landscape and settlement types throughout the District, and identifies local Landscape Character Areas with broadly comparable characteristics. The main planning function of the Winchester Landscape Character Assessment is to inform and support the Local Plan policies for conservation and enhancement of the landscape and built form in each character area.

11.4.5 The application site lies within the Wonston Downs Landscape Character Area and contains two landscape types, comprising:

- “open arable (exposed)”, including land to the north of the Barton Farm Ridge; and
- “open arable”, including land to the south of the Barton Farm Ridge.

11.4.6 The assessment confirms the existing character of the landscape as set out in the discussion of baseline conditions in Section 11.5 below.

11.5 Baseline Conditions

Physical Characteristics and Landscape Setting

11.5.1 Both the application site and wider study area have well-defined physical characteristics, and key characteristics are shown on Figure 11.1.

11.5.2 Barton Farm forms part of the extensive chalk downland that forms the characteristic setting of Winchester, especially on the northern side of the city. The downland has a distinctive **landform** characterised by a rhythmic pattern of ridgelines and dry valleys. From the ridgelines there are clear views across the rolling countryside but views are much more restricted within the dry valleys.

11.5.3 The application site takes in a pronounced ridgeline (Barton Farm Ridge) and two dry valleys lying respectively to the north (at Well House Lane) and to the south (near to the urban edge). However, the main railway line that cuts across the grain of the landscape visually interrupts this pattern. It encloses the land on its western side by an artificial ridge of higher ground that connects the natural ridges to north and south. In views from the east the embankment has much the same effect cutting across the natural fall of the land and closing off views.

11.5.4 Barton Farm Ridge extends east across the centre of the site, from a maximum elevation of about 79m on Andover Road, falling gently towards the Itchen Valley. To the south of the application site, the land rises to a slightly lower ridge that extends in a broadly east west direction around the

northern side of the city centre. Slopes throughout the site are mainly gentle, but there are locally steeper slopes adjoining Well House Lane. The land falls below 50m AOD along sections of Well House Lane and at the eastern end of the southern dry valley.

11.5.5 Within the study area, to the west of Andover Road, the Harestock Estate occupies rising ground lifting to 87m AOD on the Stockbridge Road some 1.5km to the west. To the east of the railway line, there is an area of nearly level ground adjoining the Courtenay Road residential area but further north there is an eastward continuation of the southern dry valley and the landform on the west side of Worthy Road is well-defined. Further to the east, the land falls steadily to the floodplain of the River Itchen lying east of Abbots Barton. To the north and northwest of Well House Lane, the land rises steadily onto the undulating chalk downlands that extend (except where crossed by the Dever Valley) to the District boundary and beyond. Much of this land lies above 100m AOD.

11.5.6 In terms of **landcover** (vegetation), the application site itself and the countryside to the north are mainly open in character and almost exclusively under arable cultivation. This is a common characteristic throughout the Worthy Down Landscape Character Area. There are no significant woodland blocks and tree cover is confined to isolated hedgerow trees, small isolated copses and shelterbelts, mainly of beech or pine.

11.5.7 Figure 11.2 shows an aerial photograph covering the application site and surrounding area. This highlights areas of visually significant vegetation within the site, along and adjacent to the site boundaries. The photograph also shows the contrasts in land cover distribution within the surrounding areas that are explained in the following paragraphs.

11.5.8 Hedgerows are mainly low to medium size in height, mostly well maintained. Some are gappy and in decline. Hedgerows generally are of limited significance in terms of their visual definition within the landscape.

11.5.9 Within the study area, significant vegetation is mostly associated with the residential areas of Harestock, Abbots Barton and the village of Headbourne Worthy. Riverside vegetation, notably willow, alder and poplar, is found within the Itchen Valley to the east. Along the Andover Road there is an established avenue of mature sycamore and Norway maple trees in the eastern highway verge, which are an attractive feature of the locality. This avenue frames views of the site from the Andover Road and provides an attractive setting on the approach into Winchester.

11.5.10 Within or adjoining the application site, the principal vegetation features are perimeter tree belts and the vegetation on the railway embankment. A prominent shelterbelt comprising mature beech trees, and a section of mature hedgerow with young copper beech trees, runs along the Barton Farm Ridge. This terminates in a visually important copse of beech trees adjoining Andover Road.

11.5.11 Groups of mixed deciduous and coniferous trees have been planted for screening and shelter around the Barton Farm complex, but there are no mature trees here. The site also retains some established field boundary hedgerows.

11.5.12 The vegetation on the railway land comprises native scrub vegetation, typically hawthorn, blackthorn, elder and bramble, forming a dense screen clothing the embankment. Although there are no mature trees here, the vegetation nevertheless helps to break up open views across the site.

11.5.13 An updated **Arboricultural Survey** of the existing trees on the application site is attached at Appendix 11.2. The main findings are as follows:

- Along Andover Road there is an established line of mature trees, mostly comprising sycamore and Norway maple trees. These are mainly graded in 'B' and 'C' categories (BS 5837 categorisation) with life expectancies typically in the range 20-40 years for the 'B' category trees and 10-20 years for the 'C' category trees. There are no 'A' category trees along Andover Road. Along the northern section of the Andover Road frontage there are also dense groups of younger highway plantings including Norway maple, sycamore, hawthorn and field maple.
- The remaining trees are situated around the periphery of the site and along the central east-west ridge, and the majority have been assessed as groups rather than individual trees. The most

noteworthy groups, meriting 'A' category with long potential lifespan, are part of a line of copper beech trees on the central ridge and a hedgerow containing young beech trees on the eastern section of the Well House Lane frontage. There are also two prominent shelter belts on the central ridge, both containing over-mature beech trees mixed with mainly younger wych elm, ash, holly and yew trees. These shelter belts are graded as B category but individual beech trees within these groups are suffering from basal decay and wind-blow defects. At the western end of the central ridge there is a further copse of mature beech trees, graded category 'B'.

- On the western side of the railway embankment there are dense thickets of hawthorn, blackthorn, sycamore, ash and cherry (graded 'B' category), and hawthorn, rowan, goat willow and sycamore (graded 'C' category). On the southern boundary, there is a scatter of small tree groups and individual trees, also mainly graded as 'B' category. There are only scattered, mainly 'C' grade trees on the western section of the Well House Lane boundary.

11.5.14 There are no significant or permanent **surface water features** within the site.

11.5.15 There is one **public footpath** crossing the site. Public Footpath No 1 runs along the Barton Farm Ridge and links Andover Road, via a farm vehicle and pedestrian crossing point under the railway, with Well House Lane at Abbots Worthy. The crossing point lies directly east of Barton Farm and requires the walker to follow a diversion along either side of the embankment.

11.5.16 In terms of **built form**, within the application site there are no buildings and the only structures are two telecommunications masts situated at the eastern end of the Barton Farm Ridge. However, although lying outside the formal EIA boundary, the complex of buildings of Barton Farm (accessed by a track from Andover Road) and the smaller groups of farm buildings at Well House Farm (adjoining Well House Lane), are both closely associated with the site.

11.5.17 In the wider study area, the Park Road residential area provides an urban setting on the south side of the site while the extensive Harestock Estate and frontage housing on Andover Road provide an urban setting to the west. A further residential setting is provided for the land to the east of the railway line by the Courtenay Road residential area at Abbots Barton.

Landscape Units

11.5.18 Arising from the above analysis of physical landscape characteristics, the application site can conveniently be sub-divided into two individual landscape units that have distinctive characteristics. This sub-division is helpful in understanding the landscape character of the application site and to inform its future planning. The landscape units are described in Table 11.1 below and shown on Figure 11.3.

Table 11.1: Identification of Landscape Units

Landscape Unit	Location	Defining characteristics
A	Land between the railway line and Andover Road, to the south of the Barton Farm Ridge.	Group of arable fields surrounding Barton Farm, undulating topography with pronounced dry valley; residential setting to west on tree-lined Andover Road and south (Park Road residential area); enclosed by railway line (mainly on embankment) to east and Barton Farm Ridge (with part tree belt) to north.
B	Land between the railway line and Andover Road, to the north of the Barton Farm Ridge.	Arable fields occupying extensive north-facing slope from Barton Farm ridge to Well House Lane; short east boundary terminated by railway line in cutting; mainly residential setting to west on Andover Road.

11.5.19 The application site also includes the route of a proposed footpath/ cycleway link between the pedestrian underpass on the London-Southampton railway line and Worthy Road. A separate landscape unit is not defined for land east of the railway line (as no development is proposed here) but the agricultural land on which the proposed link will be constructed is noted as a separate landscape receptor for the purposes of the landscape and visual impact assessment.

Sensitivity of Landscape Receptors

11.5.20 The GLVIA gives guidance on determining the sensitivity of the landscape resource. This is a requirement of the methodology that is set out in Section 11.3 for determining the significance of landscape impacts. In summary, it is necessary to examine the key landscape elements within the application site that may undergo change, and how they may be affected by that change, both individually and when considered together.

11.5.21 For the purpose of this ES a simple sensitivity scale has been devised to apply to the identified landscape receptors on the application site. The scale recognises the extent to which loss or harm to the landscape receptor would detract from its effective contribution to distinctive local character, and how readily that landscape element could be replaced.

11.5.22 For convenience, the landscape receptors are grouped under the landscape unit in which they occur. Twelve separate landscape receptors have been identified for the application site, and these are listed in Table 11.2. below.

Table 11.2: Sensitivities of Landscape Receptors

Landscape Unit	Landscape Receptor	Description	Sensitivity	Reasoning
Landscape Unit A	LR1	Field under arable cultivation	Medium	Pleasantly undulating landform is the most significant component of landscape character, and this has intrinsic value. The arable cropping does not make any special contribution to distinctive character and is not a permanent characteristic of the landscape.
	LR2	Internal field boundary hedgerows (including western field boundary hedge on Andover Road)	Low	These hedgerows make a modest contribution to local landscape character but do not contribute to distinctiveness. Loss could be replaced in the short/ medium term.
	LR3	Trees in highway verge along Andover Road	High	The trees make a major contribution to local distinctiveness, forming an important avenue on the approach into Winchester. They could not be replaced in the short/medium term.
	LR4	Line of young copper beech trees on Barton Farm Ridge	Medium	The trees are not yet large enough to make a distinctive contribution to local landscape character. About one third of the trees have limited potential to achieve good forms, having been lopped and these could be replaced in the short/ medium term.

Landscape Unit	Landscape Receptor	Description	Sensitivity	Reasoning
	LR5	Woodland belt	High	The tree belt occupies a prominent position in the landscape and makes a major contribution to local distinctiveness. Loss of the tree belt could not be replaced in the short/medium term
	LR6	Copse on Andover Road	High	The copse occupies a prominent position and makes an important contribution to local distinctiveness on the approach into Winchester. Loss of the copse could not be replaced in the short/ medium term.
Landscape Unit B	LR7	Field under arable cultivation	Medium	Pleasantly undulating landform is the most significant component of landscape character, and this has intrinsic value. The arable cropping does not make any special contribution to distinctive character and is not a permanent characteristic of the landscape.
	LR8	Semi-mature trees and mature hedgerow along Andover Road	Medium	The vegetation along this section of Andover Road makes a useful contribution to local landscape character by creating a well-defined boundary feature. The vegetation could only be replaced in the medium term.
	LR9	Tree group on Well House Lane/ Andover Road junction	Medium	This tree group provides a focal point at the junction which contributes to local distinctiveness. Loss of the trees could not be replaced in the short/ medium term.
	LR10	Hedgerow and scattered field boundary trees on Well House Lane (western section)	Low/ medium	The vegetation along Well House Lane makes a modest contribution to local landscape character but does not contribute to distinctiveness. Loss could be replaced in the medium term
	LR11	Hedgerow and mature trees on Well House Lane (eastern section)	Medium	The mature trees and hedgerow make a useful contribution to local landscape character by creating a well-defined boundary feature. Loss of the trees could not be replaced in the short/ medium term.
	LR12	Internal field boundary hedgerows near Well House Lane	Low	The field boundary hedgerows make a modest contribution to local landscape character but do not contribute to distinctiveness. Loss could be replaced in the short/ medium term.

Landscape Unit	Landscape Receptor	Description	Sensitivity	Reasoning
N/A	LR13	Headlands to agricultural land, with adjoining semi-mature and mature trees	Medium	Pleasantly undulating landform and trees are the most significant components of landscape character, and they have intrinsic value. The agricultural use of the land does not make any special contribution to distinctive character and is not a permanent characteristic of the landscape.

Visual Analysis of Landscape Setting

11.5.23 Figure 11.5 comprises a series of photographs that show the principal public views over the site and from more distant viewpoints. The viewpoints are shown on the plans at Figure 11.4.

11.5.24 Photograph 1 is a panorama looking between north-east and east, from Andover Road over the southern part of the site to the west of the railway line (Landscape Unit A). It shows a well-defined dry valley falling to the east, with rising ground to the north terminating in the Barton Farm Ridge. Views are closed off to the east by the railway embankment. The Barton Farm Ridge, the shelterbelt on its summit and the railway embankment combine to provide moderate visual enclosure around this part of the site. The edge of Winchester's built-up area at Park Road is visible on the right of the view.

11.5.25 The view on Photograph 2 is a panorama looking south-east across Landscape Unit A. It shows how the railway defines the eastern side of the application site, separating it from the partly hidden land to the east. The view shows the general fall in the land to the east and the urban edge of Winchester forming the backcloth to the south. The buildings of Barton Farm on the right of the view are substantially screened by vegetation in this early autumn view, but can be seen more clearly in winter.

11.5.26 Photograph 3 shows a view over the open landscape to the north of the Barton Farm Ridge west of the railway line (Landscape Unit B). The landscape character here is dominated by the large-scale landform, with only scattered trees and shelterbelts breaking up the pattern of large arable fields. Well House Lane lies mostly out of sight in the dry valley that crosses this view. The tree belt at the eastern end of the Barton Farm Ridge can also be seen.

11.5.27 Photograph 4 shows a view over the land to the east of the railway line from Worthy Road. It can be seen here how the railway embankment closes off views to the west along the dry valley, visually separating this land from the application site to the west. The combination of topography and vegetation creates partial visual enclosure.

11.5.28 Photographs 5A–5B are linked panoramas looking from south-west through to north-west, from a viewpoint on Courtenay Road. They show the level and gently-sloping land that lies east of the railway line adjoining the Courtenay Road residential area. The land here is closely related, in visual terms, to the urban edge of Winchester at Abbots Barton. The view also shows the higher part of the application site to the west of the railway embankment, adjoining Andover Road, with the lower part concealed from view behind the embankment vegetation. In the middle distance, a developing line of trees on the right of the view defines the upper edge of the dry valley to the north.

11.5.29 Photograph 6 looks west along Well House Lane from a viewpoint near Well House Farm. This view shows how the ground on the northern side of Landscape Unit B rises relatively steeply from Well House Lane. This creates a false horizon that partly conceals the Barton Farm Ridge and closes off longer views to the south. The intermittent character of the vegetation along Well House Lane can be seen.

11.5.30 A wider view towards the northern part of the site is obtained from the junction of Harestock Road with Andover Road, as shown on Photograph 7 but the application site itself is largely screened by the foliage of boundary trees in this early autumn view. The section of Andover Road leading up to the Barton Farm Ridge can be identified, with developing plantings running along its eastern verge and in the central reservation. The trees on the Barton Farm Ridge can be glimpsed in this view, defining the visual envelope of the site north of the ridge.

11.5.31 In Photograph 8, an extensive view looking south from the Three Maids junction (Andover Road/A34) is shown. This view is seen most clearly from the grass verge on the edge of the roundabout. The rolling character of the landscape is very evident from this viewpoint, with a succession of ridges and valleys leading into Winchester. The northern part of the application site sloping down to Well House Lane faces the viewpoint and is readily distinguished. However, the southern part of the site is mostly concealed behind the Barton Farm Ridge. The mature tree line on the eastern part of the ridge and the trees along Andover Road are strong defining features.

11.5.32 Photograph 9 looks southwest across the southern part of the site from a viewpoint on the public footpath that adjoins the railway line. Although still an open, undulating landscape, the view is contained here by the trees and houses on Andover Road and the northern edge of the city. The vegetation on the railway embankment can be seen on the left of the view.

11.5.33 Photographs 10A and 10B are linked panoramas looking between west and north across the site from a viewpoint on the Barton Farm Ridge adjoining the railway line. Andover Road and the Harestock residential area close off most views to the west. The comparatively level ground at the summit of the ridge conceals the steeper fall to Well House Lane. Well House Lane itself lies out of view, although the canopies of some trees along the lane can be seen, and the rising ground on its north side is also prominent. The viewer's eye is drawn to the distant succession of chalk downland ridges extending north from Winchester. Vegetation along the railway line is visible on the right of the view.

11.5.34 Photographs 11 and 12 show two winter views along Andover Road to illustrate the character of the western site boundary. Photograph 11 looks north from a viewpoint to the north of the Barton Farm Ridge, while Photograph 12 looks south towards the junction of Andover Road and Stoney Lane. Photograph 11 shows the more informal character of the younger vegetation on the highway verge north of the Barton Farm Ridge in comparison to the avenue of mature sycamore trees that line the highway verge in Photograph 12. The boundary hedgerow is also more established to the north of the ridge, but is discontinuous to the south permitting clearer views into the site.

11.5.35 Photographs 13–19 show a representative series of winter views from distant locations on higher ground around the eastern side of the city. These photographs were taken in winter to take advantage of the absence of screening by the foliage of trees which otherwise interrupts distant views in the summer months. In all these views, the site only occupies a comparatively small part of the field of view and is located well below the skyline.

11.5.36 Photographs 13 and 14 look southwest from two viewpoints to the north of Martyr Worthy. Although these viewpoints are not at very high elevations, they face directly towards Barton Farm with the Barton Farm Ridge and the higher ground on the site visible. The lower parts of the site, both to north and south of the Barton Farm Ridge are not visible.

11.5.37 There are limited views from publicly accessible locations to the east of the M3 corridor. Photograph 15 is a view looking northwest from a minor road, Long Walk. This shows intervening housing at Abbots Barton, on the west side of the Itchen Valley, with the southern part of the application site, south of Barton Farm Ridge visible. The land sloping to the north on the far side of the ridge is mostly concealed from view.

11.5.38 Part of Barton Farm can be seen from the summit of Magdalen Hill Down, Photograph 16, but intervening industrial and residential areas are much more prominent in this view. Land north of the Barton Farm Ridge is substantially concealed from view.

11.5.39 The view on Photograph 17, from Morestead Road, near Deacon Hill, is sufficiently elevated to permit part of Barton Farm to be glimpsed behind the intervening buildings and landform at

Winchester, but it can be seen here also how the Barton Fridge lies below the distant higher ridgelines to the north of the city. St Giles's Hill, is a prominent landform feature on the right of this view .

11.5.40 By contrast, the summit of St Catherine's Hill (Photograph 18) is lower than the preceding viewpoint and consequently Barton Farm is fully concealed in this view across Winchester by intervening landform and buildings. In particular, the elevation of the ridgeline immediately south of the application site is only slightly lower than the Barton Farm Ridge. Buildings on this ridgeline screen direct views towards the site.

11.5.41 Photograph 19 is a view from an elevated viewpoint to the south-west of Winchester at Weeke Down (near Teg Down). In this view, although the ground is falling towards Barton Farm, the extensive Teg Down and Harestock residential areas substantially screen direct views towards the application site. Some of the higher land to the east of the application site, adjoining Courtenay Road, is visible in this view.

Visibility of the Site

11.5.42 In order to inform masterplanning, a baseline assessment of site visibility has been undertaken. This examines the visibility of the application site, as seen from viewpoints within the surrounding study area.

11.5.43 Figures 11.6 and 11.7 show plans indicating respectively the primary and secondary visual envelopes of that part of the application site. The visual envelopes have been mapped using a combination of:

- direct field observation,
- Ordnance Survey Mapping,
- analysis of photographs; and
- a computer-generated Zone of Visual Influence (ZVI).

11.5.44 The ZVI models the visibility of the existing site (i.e. the baseline ZVI) using height data showing existing ground level adjusted by 1m to represent the height of a mature arable crop. The area covered by the model extends to a distance of 6.5km from any target point on the application site (lying west of the railway line). Figure 11.8 is a plan showing the baseline ZVI.

11.5.45 It is important to note that the visual envelope plans map the main locations from where views towards the application site can be obtained at ground level. They do not correspond precisely to the baseline ZVI, as the ZVI identifies all locations (within a 6.5 km radius from any target point within the site) from which any part of the application site (lying west of the railway line) is theoretically visible. However, field observation demonstrates that it is usually difficult to identify only a small part of the site when seen from more distant viewpoints. Accordingly, in the secondary visual envelope, locations are excluded where the ZVI indicates that less than 20% of the site can be seen as, for practical purposes the site is not readily visible.

11.5.46 It is also possible to identify the application site from some elevated viewpoints (such as Cheesefoot Head on the A272 south-east of Winchester) that lie at greater distances than 6.5kms. However, for practical purposes, in such distant views, the magnitude of visual change arising from the development would be negligible³. Accordingly, these locations are not mapped as secondary visual envelopes for the purposes of the visual impact assessment and no sensitive visual receptor groups are included within table 11.5 below . More information about the computer-generated ZVI is given in Appendix 11.2.

11.5.47 Figure 11.6 shows the primary visual envelope of the site. This comprises land that abuts the application site boundary. The maximum extent of the primary visual envelope is about 2.5km, measured from the approximate site centre on Barton Farm Ridge. The most extensive part of the

³ See table 11.17 in Appendix 11.2 (Methodology) for an explanation of this phenomenon

principal ZVI lies to the north of Well House Lane, providing views towards the northern part of the application site.

11.5.48 Existing housing and tree cover along Andover Road and to the south of the site restrict the extent of the primary visual envelope around the south and west sides. To the east, the visual envelope extends around the edges of Abbots Barton and Headbourne Worthy, but the embankment carrying the railway line substantially restricts the eastward extent of the primary visual envelope.

11.5.49 No part of the primary visual envelope lies within the South Downs National park

11.5.50 Figure 11.7 shows secondary visual envelopes that have been mapped mainly on the east and north-east sides of the city. These mainly comprise discrete areas of rising and high ground lying some 2–6km from the application site, some of which (noted below) lie in the South Downs National Park.

11.5.51 With the exception of very small areas of ground at Littleton to the west of B3420/A272, the application site is not visible from locations on the south and west sides of Winchester. Similarly, around the southeast side of the city, the site can only be partially glimpsed from the highest west facing slopes at Deacon Hill, Fawley Down, Telegraph Hill, Chilcomb Down and Cheesefoot Head. These locations lie within the National Park

11.5.52 On the east side of the city, partial distant views can be obtained from locations in the National Park, including the north side of Magdalen Hill Down, the rising ground at Winnall Down and to the east of the M3 corridor, and isolated high points further east.

11.5.53 The site is most visible in distant views from the north-east, particularly the rising ground to the north of the Itchen Valley at Martyr Worthy. The baseline ZVI (Figure 11.8) maps two discrete areas of open farmland on either side of the M3 corridor from where the majority of the site is visible. However, these locations are between 4 and 5km from the site. Further partial distant views can be obtained from high ground at Abbots Worthy and rising ground to the east of South Wonston. Most of this area is situated outside the National Park but the lower-lying land following the Itchen valley at Martyr Worthy does lie within the new park boundary.

11.5.54 With the exception of two discrete areas to the north east of the city, the secondary visual envelopes demonstrate that the application site does not have extensive intervisibility with the high ground around the city. There is virtually no intervisibility from viewpoints to the west and only limited intervisibility from viewpoints between southeast and north. In many views, only the higher land adjoining the Barton Farm Ridge or the open land to the north of the ridge can be discerned. Lower lying land to the south of the ridge, and land adjoining Well House Lane, lies largely out of view. Finally, intervening areas of higher ground at Fulflood, Winnall and Highcliffe interrupt some view lines from the south-east.

Visual Receptors

11.5.55 GLVIA recommends that groups of sensitive visual receptors that may potentially be affected by any proposed new development should be identified as part of the baseline visual analysis. Sensitive visual receptors will typically comprise residents, users of roads and public footpaths, and others whose visual amenity may be affected by a proposed development.

11.5.56 Identification of a sensitive visual receptor group does not indicate that any particular visual impact would occur. However, if considered necessary, the visual impact of a specific development proposal can then be assessed by reference to the change in visual amenity that would be experienced by these visual receptor groups.

11.5.57 Guidance on the **sensitivity** of different visual receptor groups is given in Part 7 of GLVIA. People experience differing responses to views depending on the context of the view and their purpose for being at a particular place. It is therefore appropriate to assess the sensitivity of different groups of visual receptors according to some form of recognised scale.

11.5.58 Using the guidance in GLVIA, a simple sensitivity scale has been devised at Table 11.3. to apply to the identified visual receptor groups located in the primary and secondary visual envelopes. The sensitivity scale sets out the reasoning for assigning a particular sensitivity in terms of the location and context of the viewpoint, the expectations and occupation/activity of the receptor group, and the perceived importance of the view.

Table 11.3: Sensitivities of Visual Receptor Groups

Visual Receptor Group	Sensitivity	Reasoning
Residents	High	Occupiers of residential properties whose views may be changed by the development would usually be very sensitive to that change. The main residence is central to the quality of life for the majority of people and changes in views would be very significant.
Residents living within the South Downs National Park	Very high	The high sensitivity to visual change of residents is increased by the context of the viewpoint located within a highly valued landscape.
Walkers, riders (using bridleways) and users of outdoor recreational facilities	High	Almost by definition, the attention of walkers, riders, and other users of outdoor facilities will be strongly focussed on the landscape, albeit for shorter durations. Accordingly, these users would be sensitive to changes in view.
Walkers, riders (using bridleways) and users of outdoor recreational facilities obtaining views from within the South Downs National Park.	Very high.	The high sensitivity to visual change of walkers, rider and other users of outdoor facilities residents is increased by the context of the viewpoint located within a highly valued landscape.
Vehicle occupants and railway passengers	Medium	Vehicle occupants and railway passengers are necessarily focussed on the landscape through which they are passing, and are sensitive to changes in view. However, their perception of a particular view is usually experienced over relatively short duration and they would be less sensitive to change.
School children and school staff	Low	Schools are essentially working environments where school children and school staff will be primarily focussed on their work. Their sensitivity to change would normally be low.
Agricultural workers	Low	Although working in the landscape, agricultural workers are focussed on their particular activity and their sensitivity to change would normally be low.

11.5.59 Sensitive visual receptors would be located within the primary and secondary visual envelopes described in the preceding section and they would potentially experience change to their visual amenity resulting from the development. Tables 11.4 and 11.5 show, respectively, the groups of sensitive visual receptors that have been identified in the primary and secondary visual envelopes. The descriptions indicate the general location of the visual receptor group and the main receptor types affected. Their locations are shown on the plans at Figures 11.9 and 11.10.

Table 11.4: Identification of Sensitive Visual Receptor Groups Within Primary Visual Envelope

Visual Receptor	Location	Main Receptor Group Affected	Sensitivity
VP1	Houses on Andover Road and within eastern edge of Harestock Estate, south of Barton Farm Ridge, houses on north side of Park Road, west of railway line	Residents	High
VP2	Houses on Andover Road and within eastern edge of Harestock Estate, north of Barton Farm Ridge	Residents	High
VP3	Henry Beaufort School, Andover Road	School children and school staff	Low
VP4	Andover Road (south of Well House Lane)	Vehicle occupants (well trafficked)	Medium
VP5	North edge of Abbots Barton, including Courtenay Road residential area	Residents	High
VP6	Southwest side of Headbourne Worthy (south of Well House Lane)	Residents	High
VP7	Andover Road (north of Well House Lane)	Vehicle occupants (well trafficked)	Medium
VP8	Down Farm Lane (higher section)	Vehicle occupants (lightly trafficked)	Medium
VP9	Well House Lane (west of railway line).	Vehicle occupants (well trafficked)	Medium
VP10	Public footpaths within site (Barton Farm Ridge/railway line)	Walkers	High
VP11	Public footpath, site to Well House Lane (east of railway line, higher section only)	Walkers	High
VP12	Public footpath, Andover Road to Down Farm Lane	Walkers	High
VP13	Other locations within primary visual envelope, mainly on open farmland	Agricultural workers	Low
VP14	London-Southampton railway line passing the site	Railway passengers	Medium

Table 11.5: Identification of Sensitive Visual Receptor Groups within Secondary Visual Envelopes

Note: **SDNP** = location within South Downs National Park

Visual Receptor	Location	Main Receptor Group Affected	Sensitivity
VS1	No Man's Land, scattered dwellings on Alresford Road (east of M3 overbridge), farms lying north Alresford Road on Winnall Down SDNP	Residents	Very high
VS2	St Swithun's School, Alresford Road SDNP	School children and school staff	Low
VS3	Alresford Road (B3404), between M3 overbridge and A.31 junction SDNP	Vehicle occupants (well-trafficked)	Medium
VS4	Easton Lane (higher section), Long Walk (higher section) SDNP	Vehicle occupants (lightly trafficked)	Medium
VS5	Open farmland on rising ground to east of M3 corridor, lying between Easton and Deacon Hill/Twyford Down SDNP	Agricultural workers	Low
VS6	Morestead Road (between M3 and Deacon Hill). important viewpoint on approach to Winchester. SDNP	Vehicle occupants (well-trafficked and)	High
VS7	Public footpaths at Magdalen Hill Down, Deacon Hill, Fawley Down, Telegraph Hill and Chilcomb Down SDNP	Walkers	Very high
VS8	St. Catherine's Hill SDNP	Walkers/visitors	Very high
VS9	Easton (west side of village only) SDNP	Residents	Very high
VS10	Recreational footpaths in Itchen Valley at Abbots Barton SDNP	Walkers	Very high
VS11	A34 corridor at Abbots Barton SDNP	Vehicle occupants (well-trafficked)	Medium
VS12	Public footpath from Basingstoke Road (A.33) to Grace Farm (higher sections), Oxdrove Way (short section) east of Chillandham Farm	Walkers	High
VS13	Bridgets Lane (SDNP (southern section))	Vehicle occupants (lightly trafficked)	Medium
VS14	Bridget's Farm, scattered dwellings mainly to north of B3047 at Martyr Worthy/Itchen Abbas	Residents	High
VS15	B3047 between Itchen Abbas and Abbots Worthy SDNP	Vehicle occupants (well-trafficked)	Medium

VS16	Open farmland on rising ground extending between A33 and Martyr Worthy SDNP (southern section)	Agricultural workers	Low
VS17	Open farmland on rising ground between railway line and A33	Agricultural workers	Low
VS18	Alresford Drove (short section), south of Borough Down Farm	Walkers	High
VS19	Open farmland on rising ground to north of A34 bypass and west of railway line	Agricultural workers	Low
VS20	Stoke Charity Road (higher sections)	Vehicle occupants (lightly trafficked)	Medium
VS21	A34 and parallel minor road (old A34), north of A34/A272/B3420 junction (short sections)	Vehicle occupants (well-trafficked)	Medium
VS22	Littleton Lane (higher section)	Vehicle occupants (lightly trafficked)	Medium
VS23	Public footpath, Littleton to New Barn (part only)	Walkers	High
VS24	Open farmland north and west of Littleton, extending across Northwood Park towards Sparsholt	Agricultural workers	Low
VS25	Dispersed residential area north edge of Littleton, Littleton House, Northwood Park Farm, Lainston House Hotel	Residents	High
VS26	Open farmland on rising ground at Teg Down/ Weeke Down, Lanham Down	Agricultural workers	Low
VS27	Public footpaths Lanham Lane, Clarendon Way (short sections)	Walkers	High
VS28	Kings' School, Romsey Road	School children and school staff	Low
VS29	Teg Down (Golf Course)	Users of outdoor recreational facility (golfers), walkers	High

Winchester City and Its Setting

11.5.60 The document *Winchester City and its Setting* (published July 1998 by Landscape Design Associates) presents the findings of a detailed study commissioned by Hampshire County Council, Winchester City Council and other interested parties. The study provided independent input to inform the review of the Local Plan.

11.5.61 The analysis of the setting of the city, set out in Chapter 5 of the Report, introduces the concept of identifying "Areas of Influence" as a tool to assess the relative significance to Winchester of different parts of the city and its setting.

11.5.62 The application site, and the wider area of search for the North of Winchester MDA, was identified within an area of "Supportive Landscape" on Plan 1059LP/11, which is reproduced at Figure

11.11. The “supportive” description in *Winchester City and its Setting* describes landscapes that provide a backdrop and sense of place for the city and its approaches.

Summary of Site and Landscape Setting

11.5.63 The landscape character of the site and surrounding area is strongly defined by landform. Barton Farm Ridge is the dominant landform element. Visually significant land cover is provided by the shelterbelt on the Barton Farm Ridge, the avenue of mature sycamore trees running along Andover Road, beech copses, and the scrub vegetation growing on the railway embankment. The latter is an artificial feature that significantly modifies the local landscape character.

11.5.64 The site has a well-defined urban setting to the south and west, but retains an open rural setting to the north. A primary visual envelope has been identified lying within 2km of the application site boundary. Discrete secondary visual envelopes have been identified mainly located on high ground on the east side of the city lying between 2 to 6km from the site.

Summary of Constraints and Opportunities

11.5.65 Arising from the assessment of baseline conditions, the important landscape constraints and opportunities that should inform the masterplanning of the proposed residential development scheme are discussed below.

11.5.66 In terms of landform, the site presents both constraints and opportunities. The rolling downland topography defines the character of the landscape here and will strongly influence the way in which a large-scale development could be planned. The railway line (an artificial feature in the landscape) creates a further local division of landscape character. Land to the east is more visually enclosed whereas land to the west is more open and extensive, particularly to the north of the Barton Farm Ridge.

11.5.67 The Barton Farm Ridge forms a clear visual break running east–west across the centre of the application site. In one sense it can be viewed as a constraint, with the potential to contain development to the south of the ridgeline. Equally, it can be viewed as an opportunity to function as the physical and visual “backbone” of a more extensive development that includes land to the north.

11.5.68 Land cover is a less significant element of landscape character within the application site. Individual trees, hedgerows, shelterbelts and woodland blocks all contribute to landscape character. However, they modify rather than form the landscape character.

11.5.69 The landscape of large open fields at Barton Farm is agriculturally efficient but visually monotonous, and does not impose major design constraints. As most significant vegetation is located on-site and field boundaries, it should be possible to retain all the important elements of existing landcover across the site. Indeed, the absence of significant landcover with Barton Farm presents an opportunity, as part of a comprehensive landscape strategy, to increase tree cover very significantly.

11.5.70 There are no constraints relating to surface water features.

11.5.71 In terms of settlement and built form, the site is unconstrained. Moreover, on its southern side, the site is well related to the existing urban edge of Winchester.

11.6 Identification and Evaluation of Key Impacts

11.6.1 The identification of potential significant impacts is derived from analysis of the construction and operational phases of the proposed development which correspond, respectively, to temporary and permanent impacts. As explained in the Assessment Methodology at Appendix 11.2, no indirect or cumulative impacts are anticipated.

Anticipated Temporary Impacts

11.6.2 During the construction phase of the development, the following activities and changes may generate impacts on landscape and visual receptors.

Table 11.6: Anticipated Temporary Impacts

Reference no.	Activity / change
T1	Erection of protective fencing around retained trees, tree belts and hedgerows
T2	Construction of temporary haul routes
T3	Construction of site compound(s) and protective hoardings
T4	Site clearance works including temporary spoil or soil storage heaps
T5	Operation of plant and machinery, including cranes
T6	Security lighting

Anticipated Permanent Impacts

11.6.3 During the operational phase of the development, the following activities and changes may generate impacts on landscape and visual receptors.

Table 11.7: Anticipated Permanent Impacts

Reference no.	Activity / change
P1	New residential development scheme of 2000 dwellings, built form not exceeding three storeys (13m) in height (key frontage buildings only), main residential development not exceeding 3 storeys (13m in height) in height; associated boundary enclosures, roads (including realigned Andover Road), footways, footpaths, cycleways, road and footpath lighting, public open spaces (including children's play areas, allotments, sustainable urban drainage system, park and ride area and other infrastructure elements and structural landscape framework.
P2	New local centre (mixed uses), built form not exceeding four storeys (16m) in height, enclosing 2.03 ha recreation ground.
P3	New primary school on 1.8 ha site, built form not exceeding 2.5 storeys (10m in height) in height.
P4	New combined heat and power unit, built form not exceeding 10m high with exhaust gas stack not exceeding 19m high.
P5	Conversion of existing Andover Road to green corridor with vehicular access only for residents.
P6	Construction of new junction on Well House Lane
P7	Construction of new junction for residents' access on northern section of Andover Road.
P8	Reconstruction of Stoney Lane junction with Andover Road.
P9	Realignment of Andover Road to enter site (north end)

P10	Realignment of Andover Road to enter site (south end)
P11	Construction of footpath cycleway link to Worthy Road

Landscape and Visual Impact Matrix

11.6.4 Table 11.8 below identifies potential impacts by plotting the temporary and permanent activities/changes identified above against the landscape and visual receptor groups described in Section 11.5. The identification of a potential impact does not indicate any measure of significance.

Table 11.8: Landscape and Visual Impact Matrix

X impact will occur
O no impact is anticipated

Landscape Receptors																	
Impact:		T = temporary impact P = permanent impact															
	T1	T2	T3	T4	T5	T6	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11
LR1	X	X	X	X	O	O	X	O	O	O	O	O	O	O	O	O	O
LR2	O	X	X	X	O	O	X	O	O	O	O	O	O	X	O	X	O
LR3	O	O	O	O	O	O	O	O	O	O	X	O	O	X	O	X	O
LR4	O	X	X	X	O	O	X	X	X	X	O	O	O	O	O	O	O
LR5	O	X	X	X	O	O	X	O	X	O	O	O	O	O	O	O	O
LR6	O	X	X	X	O	O	X	X	O	O	X	O	O	O	O	O	O
LR7	X	X	X	X	O	O	X	X	X	X	O	O	O	O	O	O	O
LR8	O	X	O	O	O	O	X	X	O	O	X	O	X	O	O	O	O
LR9	O	X	O	O	O	O	O	O	O	O	O	O	O	O	X	O	O
LR10	O	X	O	O	O	O	X	O	O	O	O	X	O	O	O	O	O
LR11	O	X	O	O	O	O	X	O	O	O	O	O	O	O	O	O	O
LR12	O	X	X	X	O	O	X	O	O	O	O	O	O	O	O	O	O
LR13	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	X

Visual Receptors																	
Impact:		T = temporary impact P = permanent impact															
	T1	T2	T3	T4	T5	T6	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11
VP1	X	X	X	X	X	X	X	X	O	X	X	O	O	X	O	X	O
VP2	X	X	X	X	X	X	X	X	O	X	X	O	X	O	X	O	O
VP3	X	X	X	X	X	X	X	X	O	X	X	O	O	O	O	O	O
VP4	X	X	X	X	X	X	X	X	O	X	O	O	O	O	O	O	O
VP5	O	X	O	X	O	X	X	X	O	X	O	O	O	O	O	O	X

<i>Visual Receptors</i>																	
VB6	O	X	O	X	O	X	X	X	O	X	O	O	O	O	O	O	X
VP7	O	X	O	X	O	X	X	X	X	X	O	X	O	O	X	O	O
VP8	O	X	O	X	O	X	X	X	X	X	O	X	O	O	X	O	O
VP9	X	X	X	X	X	X	X	X	X	X	O	X	O	O	O	O	O
VP10	X	X	X	X	X	X	X	X	X	X	O	O	O	O	O	O	O
VP11	O	X	O	X	O	X	X	X	O	X	O	O	O	O	O	O	X
VP12	O	X	O	X	O	X	X	X	X	X	O	X	O	O	X	O	O
VP13	O	X	O	X	O	X	X	X	X	X	O	X	O	O	X	O	O
VP14	X	X	X	X	X	X	X	X	O	X	O	O	O	O	O	O	X
VS1	O	O	O	O	O	O	X	X	O	X	O	O	O	O	O	O	O
VS2	O	O	O	O	O	O	X	X	O	X	O	O	O	O	O	O	O
VS3	O	O	O	O	O	O	X	X	O	X	O	O	O	O	O	O	O
VS4	O	O	O	O	O	O	X	X	O	X	O	O	O	O	O	O	O
VS5	O	O	O	O	O	O	X	X	O	X	O	O	O	O	O	O	O
VS6	O	O	O	O	O	O	X	X	O	X	O	O	O	O	O	O	O
VS7	O	O	O	O	O	O	X	X	O	X	O	O	O	O	O	O	O
VS8	O	O	O	O	O	O	X	X	O	X	O	O	O	O	O	O	O
VS9	O	O	O	O	O	O	X	X	O	X	O	O	O	O	O	O	O
VS10	O	O	O	O	O	O	X	X	X	X	O	O	O	O	O	O	O
VS11	O	O	O	O	O	O	X	X	X	X	O	O	O	O	O	O	O
VS12	O	O	O	O	O	O	X	X	X	X	O	O	O	O	O	O	O
VS13	O	O	O	O	O	O	X	X	X	X	O	O	O	O	O	O	O
VS14	O	O	O	O	O	O	X	X	X	X	O	O	O	O	O	O	O
VS15	O	O	O	O	O	O	X	X	X	X	O	O	O	O	O	O	O
VS16	O	O	O	O	O	O	X	X	X	X	O	O	O	O	O	O	O
VS17	O	O	O	O	O	O	X	X	X	X	O	O	O	O	O	O	O
VS18	O	O	O	O	O	O	X	X	X	X	O	O	O	O	O	O	O
VS19	O	O	O	O	O	O	X	X	X	X	O	O	O	O	O	O	O
VS20	O	O	O	O	O	O	X	X	X	X	O	O	O	O	O	O	O
VS21	O	O	O	O	O	O	X	X	X	X	O	O	O	O	O	O	O
VS22	O	O	O	O	O	O	X	X	X	X	O	O	O	O	O	O	O
VS23	O	O	O	O	O	O	X	X	X	X	O	O	O	O	O	O	O
VS24	O	O	O	O	O	O	X	X	X	X	O	O	O	O	O	O	O
VS25	O	O	O	O	O	O	X	X	X	X	O	O	O	O	O	O	O
VS26	O	O	O	O	O	O	X	X	O	X	O	O	O	O	O	O	O
VS27	O	O	O	O	O	O	X	X	O	X	O	O	O	O	O	O	O

<i>Visual Receptors</i>																	
VS28	○	○	○	○	○	○	○	X	X	○	X	○	○	○	○	○	○
VS29	○	○	○	○	○	○	○	X	X	○	X	○	○	○	○	○	○

Temporary impacts on landscape character

11.6.5 A range of temporary landscape impacts will occur during the construction phase. Some comparatively minor impacts, such as erection of temporary protective fencing, will only potentially affect a few landscape receptors. Other more significant impacts, such as construction of temporary haul routes, may potentially affect many landscape receptors. Erection of site compounds (including protective hoardings) and site clearance/ storage of spoil heaps will potentially affect several landscape receptors. By itself, the operation of plant and machinery will not generate temporary landscape impacts because the *outcomes* of plant and machinery operations are assessed separately. Installation of security lighting is considered unlikely to generate significant temporary landscape impacts.

Permanent impacts on landscape character

11.6.6 Eleven permanent landscape impacts have been identified that will affect landscape receptors. The most important permanent impacts will arise from the physical construction of the new development comprising (for the purposes of this assessment) the residential development scheme (with all associated works), the new local centre, the new primary school and the new combined heat and power unit (CHP unit). These impacts will potentially affect many of the landscape receptors with the residential development scheme potentially affecting the greatest number of landscape receptors. The remaining permanent impacts arise from construction of new junctions and modification of the existing Stoney Lane junction on Andover Road, together with construction of the cycleway/ footpath link to Worthy Road. Potentially, these impacts will only affect the landscape receptors situated along Andover Road while the construction of the cycleway/ footpath link only affects one landscape receptor.

Temporary impacts on visual character

11.6.7 There will be a range of temporary visual impacts during the construction phase. Security lighting, construction of temporary haul routes and site clearance works will potentially affect all visual receptors in the primary visual envelope around the site. Other impacts, such as the operation of plant and machinery and construction of site compounds will also affect the majority of these visual receptors. The erection of temporary protective fencing around retained trees and hedgerows will affect fewer visual receptors in the primary visual envelope.

11.6.8 No temporary visual impacts arising from specific construction operations have been assessed for visual receptors in the secondary visual envelopes. Although construction activity may be visible from locations within the secondary visual envelopes, for practical purposes it would be difficult to differentiate the different construction activities at these more distant locations. Moreover, all feasible mitigation measures for reducing potential temporary visual impacts in the primary visual envelope would also benefit visual receptors in the secondary visual envelopes. Accordingly, the identification of specific temporary visual impacts in the secondary visual envelopes would not meaningfully inform the assessment process and the identification of appropriate mitigation measures.

Permanent impacts on visual character

11.6.9 The most important permanent visual impacts arising from the development will be the residential development scheme (with all associated works), the new local centre, and the new combined heat and power unit (CHP unit). The visibility of CHP unit arises primarily from its flue stack, which is estimated to be 19m high. Potentially, these elements will affect all visual receptors in the primary visual envelope and within the secondary visual envelopes. By itself, the new primary school has a lower visual profile and would not be visible to all of the visual receptors in either the primary and secondary visual envelopes.

11.6.10 The remaining permanent visual impacts arise from construction of new junctions and, modification of the existing Stoney Lane junction on Andover Road, together with construction of the cycleway/ footpath link to Worthy Road. These elements of the scheme generate mainly local visual impacts affecting different visual receptor groups within the primary visual envelope. None of these works are anticipated to generate significant visual impacts within the secondary visual envelopes.

Significance of predicted impacts

11.6.11 The significance of the predicted impacts identified in Table 11.8 and summarised above are now assessed by reference to the methodology described in Appendix 11.2 which uses separate sets of significance thresholds for assessing the significant landscape and visual impacts.

11.6.12 Tables 11.9 to 11.12 are contained in Appendix 3 and show the significance of the predicted impacts, as follows:

- Table 11.9: Significance of temporary landscape impacts
- Table 11.10: Significance of permanent landscape impacts
- Table 11.11: Significance of temporary visual impacts
- Table 11.12: Significance of permanent visual impacts.

11.6.13 The assessments also indicate whether the predicted impact will be beneficial or adverse. It should be noted that these assessments show the significance of the impacts before the application of mitigation measures that are discussed later in this section.

Analysis of the significant landscape and visual impacts

11.6.14 Tables 11.9-11.12 show the assessed significance of both temporary and permanent landscape and visual impacts, before mitigation. The significance of these impacts is analysed below, with particular reference to the more significant landscape and visual impacts that have been identified.

11.6.15 All **temporary landscape impacts** are assessed as potentially adverse, with the exception of the erection of temporary protective fencing within arable fields which is assessed as 'no change'. The majority of **temporary landscape impacts** are assessed at moderate significance. Potential impacts of high significance, arising from potential loss or damage to trees of high amenity value, are the construction of temporary haul routes, site compounds and site clearance in the vicinity of retained trees and tree belts.

11.6.16 All **permanent landscape impacts** are also assessed as potentially adverse and comprise impacts of moderate or high significance. Potential impacts of high significance result primarily from the permanent impact of the main residential development scheme leading to permanent loss of agricultural land and potential loss or damage to trees and tree belts of high amenity value. Moderate impacts would be generated mainly where elements of the scheme would potentially affect landscape receptors of lower sensitivity, or where impacts of lower magnitude affect receptors of medium sensitivity.

11.6.17 The **temporary visual impacts** all occur within the primary visual envelope and range in significance between slight and severe. All are potentially adverse. Potentially severe impacts arise from construction of temporary haul routes, site clearance, the operation of plant and machinery and security lighting affecting nearby visual receptors, including users of the public footpath network within the site. This visual receptor group is potentially the most adversely affected of the fourteen visual receptor groups in the primary visual envelope. Substantial adverse impacts arising from all of the temporary impacts (other than erection of temporary protective fencing) would also potentially affect many receptor groups, particularly residents living close to the site. Moderate impacts would mainly arise where vehicle occupants and train passengers have restricted views towards intrusive visual

elements or activities. Few receptors would experience only slight impacts and these comprise only more distant visual receptor groups and/ or visual receptor groups of low sensitivity.

11.6.18 **A range of potential permanent visual impacts** has been identified that will affect visual receptor groups in both the primary and secondary visual envelopes. All are potentially adverse., with the important exception of the conversion of existing Andover Road to a green corridor.

11.6.19 The major potential visual impacts arise from the residential development, the local centre, the CHP unit and, to a lesser extent, the new primary school. For visual receptors in the primary visual envelope, these are assessed mainly as substantial or severe, but with moderate or slight impacts occurring where the visual receptor group is more distant and/ or has lower sensitivity. Visual impacts arising from construction of the new primary school range from slight to moderate.

11.6.20 Potential visual impacts from the main elements of the scheme (as described above) in the secondary visual envelopes are all adverse but most are of slight significance. This assessment arises primarily because the visual receptor groups are situated at some distance from the application site, so the resulting magnitude of visual change would be small and there would only be minor alterations to the baseline view. However, for the nearest visual receptor groups in the Itchen valley, impacts of potentially substantial significance are identified. For some visual receptor groups located to the north-east of the application site, from where the greatest proportion of the development would be visible, potential impacts of moderate significance are identified.

11.6.21 Permanent visual impacts arising from the conversion of Andover Road to a green corridor and construction of the new and modified junctions in association with this element of the development, generate potential impacts of both slight and substantial significance, including a substantial beneficial impact for existing residents of Andover Road. Finally, the potential visual impact from construction of the new cycleway/ footpath link to Worthy Road is slight. None of these potential impacts affect visual receptors in the secondary visual envelopes.

11.7 Assessment of Construction Phase

11.7.1 The assessment of the construction phase of the project is set out in Section 11.6 above which assesses the significance of the anticipated temporary landscape and visual impacts arising during construction.

11.8 Enhancement and Mitigation Proposals

11.8.1 Tables 11.13 to 11.16 show the significance of the residual landscape and visual impacts (both temporary and permanent) that would remain following the application of mitigation measures to the significant impacts identified in the LVIA. All impacts are of local geographical extent.

11.8.2 Reduction of the significance of an adverse impact (or creation of a beneficial impact) can only be achieved where the mitigation measure would reduce or eliminate the magnitude of the identified adverse impact. Impacts cannot always be mitigated, either because there is no scope to apply them or they would be insufficient to achieve any meaningful reduction in the magnitude of an adverse impact.

11.8.3 In these cases, the entry 'NONE' is applied in the tables to the column headed 'Mitigation Measures' and the residual impact remains unaltered.

11.8.4 .Mitigation of some adverse **temporary landscape impacts**, including temporary haul routes and locations of compounds can be achieved in full by careful design of the construction programme and the layout of the working areas. This will avoid unnecessary damage to landscape receptors, notably, damage to retained trees and hedgerows, resulting in no adverse impacts. Where hedgerows and tree lines will be crossed by new roads and/or junctions, no direct mitigation can be achieved. However, compensation for landscape elements that are removed will be incorporated in the detailed landscape scheme for the development. However, no mitigation can be achieved in respect of the direct impact of site clearance and erection of compounds/ hoardings: these are a necessary precursor to the permanent change in landscape character arising from the development.

11.8.5 The preferred strategy for the reduction of permanent landscape and visual impacts arising from the development will be through 'reduction by design'. This approach is discussed more fully under reduction of permanent visual impacts. Direct mitigation of potential adverse **permanent landscape impacts** will be achieved primarily at conserving those features of the existing landscape framework that are desirable to retain and incorporation of these elements into the masterplan for the new development.

11.8.6 Consequently, by retaining existing trees, tree belts and hedgerows at Barton Farm wherever possible, many potential adverse landscape impacts of high significance can be reduced or eliminated altogether. In addition, through sensitive landscape design, including the planting of replacement highway trees, the potential adverse impacts of the new/ realigned junctions on Andover Road and the creation of the green corridor on existing Andover Road can be substantially or partially mitigated. However, the direct landscape impact of using agricultural land for residential development cannot be directly mitigated.

11.8.7 In relation to **adverse temporary landscape impacts**, mitigation can be achieved for some impacts by adopting appropriate measures in the design of the construction programme and the layout of working areas. For example, the visual impact of haul routes and site clearance can be reduced by minimising the number of haul routes needed and phasing of site clearance works. Similarly, compounds and hoardings can be sensitively located to reduce visual impact in the construction phase. Security lighting can also be sensitively sited and directed to avoid unnecessary visual intrusion. All of these measures will help to reduce the significance of temporary visual impacts. However, it is not practicable to propose specific mitigation measures for the operation of plant and machinery. Reduction of temporary visual impact from the operation of plant and machinery may occur in any event through phasing of the whole development, limiting operations to only part of the site at any one time.

11.8.8 As noted previously, the preferred strategy for mitigating potential **permanent visual impacts** is through reduction of adverse impacts by design. At Barton Farm, this has been achieved by designing the new development in accordance with a coherent set of design principles (as described in full in the Design and Access Statement) so as to achieve a high quality development, incorporating a robust landscape framework, that relates well to the surrounding residential and rural setting. A number of specific design measures have been adopted to reduce potentially adverse permanent visual impacts:

- the masterplan makes best use of the visually prominent topographical features of the Barton Farm ridge and Andover Road to establish a reference framework for the design of the masterplan, while avoiding the use of steeper unsuitable slopes adjoining Well House Lane for built development;
- the masterplan provides for a coherent hierarchy of building heights, with the tallest buildings and the CHP flue stack - concentrated around the local centre (where they can form a distinctive focal point) with mainly low-rise buildings distributed throughout the remainder of the site;
- a new east-west visual relationship is established by realigning Andover Road, thus enabling existing Andover Road to become a green corridor which can form a strong visual link between the existing and new residential areas;
- landscape design has been fully integrated into the masterplanning process, comprising:
 - (i) the creation of extensive areas of natural green space and recreational spaces (both formal and informal) forming a logical hierarchy of spaces to complement the distribution of built form;
 - (ii) a sequential approach to the landscape treatment of the major roads, particularly realigned Andover Road;
 - (iii) creation of a new green corridor along existing Andover Road where priority will be given to pedestrians and cycle users; and

- (iv) establishing strong relationships with the existing landscape framework, for example by extending 'fingers' of natural green space from Well House Lane between residential streets on the northern side of the development.

11.8.9 The application of a strong design process to the design of the masterplan will reduce the severity of potential adverse visual impacts, particularly severe, substantial and moderate visual impacts that would otherwise be experienced by visual receptors in the primary visual envelope. The extent to which the severity of a visual impact can be reduced by good design cannot be determined with precision. Nevertheless, it is considered, for the purposes of this assessment, that the design of the masterplan will generally reduce potential adverse visual impacts in the primary visual envelope to the next lowest level of significance.

11.8.10 By contrast, in the secondary visual envelopes where the majority of visual impacts will be of slight significance, it will be more difficult to ascertain whether the specific design measures outlined above achieve perceptible reductions in visual impact. This is a consequence of the greater distance of the viewpoints in the secondary visual envelope. It is likely, for example, that the grouping of taller buildings into a single part of the site will be observed by more distant visual receptors but it would be difficult to argue that this measure alone would significantly reduce the visual impact of the development. Accordingly, reductions in visual impact arising from design are only recorded where the potential adverse impact is greater than 'slight'.

11.9 Summary

11.9.1 This chapter of the Environmental Statement has set out the methodology and findings of a Landscape and Visual Impact Assessment (LVIA) of the proposed Barton Farm residential development scheme. The LVIA has been undertaken in accordance with the recommendations of the *Guidelines for Landscape and Visual Impact Assessment, Second Edition*.

11.9.2 The baseline conditions of the site and surrounding area have been described in Section 11.5. The assessments of landscape and visual impact have measured:

- firstly, the significance of the anticipated changes to these baseline conditions arising from the development, assuming no specific mitigation measures are implemented; and
- secondly, the residual significance of the anticipated changes after the application of mitigation measures designed to reduce potentially adverse landscape or visual impacts

11.9.3 Landscape and visual impacts have been identified separately, and have been separately tabulated according to whether they are temporary or permanent impacts.

11.9.4 The development is not anticipated to generate significant cumulative or indirect landscape or visual impacts and therefore these have not been assessed.

11.9.5 The findings of the LVIA are summarised below:

- The scheme will generate many landscape and visual impacts, both of a temporary and permanent nature, and the majority of these are adverse in nature. The proposed conversion of Andover Road to form a green corridor is a notable exception generating beneficial impacts for some receptors.
- In the construction phase, some potentially adverse **temporary landscape** impacts can largely be mitigated through good operational planning of the works to reduce the potential severity of impacts or to eliminate them altogether. However, some impacts cannot be easily mitigated as they are an inevitable consequence of the development process
- Similarly, some potentially adverse **permanent landscape** impacts (notably damage to or loss of trees, tree belts and significant hedgerows), can be mitigated by design to reduce the potential severity of impacts or to eliminate them altogether. Some impacts, notably the permanent loss of agricultural land, cannot be mitigated.

- Potentially adverse **temporary visual** impacts in the construction phase will only affect visual receptor groups in the primary visual envelope around the site. While it will not be possible to eliminate these temporary visual impacts, their severity can generally be mitigated through good operational planning of the works.
- Potentially adverse **permanent visual** impacts will affect visual receptors in both the primary visual envelope and the secondary visual envelopes. The most severe potential impacts will be observed by the several visual receptor groups in the primary visual envelope because the nature of existing views will change very significantly from the existing baseline conditions. The main residential development and the associated elements (local centre, school and CHP unit) will generate the most significant visual impacts affecting the majority of visual receptor groups, whereas visual impacts arising from the new/ realigned junctions on Andover Road will generate more localised visual impacts. However, for the majority identified visual impacts, their severity can be mitigated through exemplary design following the principles set out in the masterplan and parameter plans used to undertake this assessment (see Appendix 11.2).
- Although there will be potentially adverse permanent visual impacts in the secondary visual envelopes, these will mainly be of slight or moderate significance. Accordingly, it is not anticipated that specific mitigation measures to reduce visual impact would be effective in reducing the visual impact of the development for the majority of visual receptors in the secondary visual envelopes.