



Masterplan - Haverhill Research Park

Adopted March 2011

1 Introduction

- 1.1 Purpose of Master plan
- 1.2 Location
- 1.3 Character of the Area
- 1.4 The Site
- 1.5 Planning Policy Context
- 1.6 Structure of the Master plan

2 Design Vision

- 2.1 Introduction
- 2.2 The Vision
- 2.3 The Master Plan

3 Design Principles

- 3.1 Introduction
- 3.2 Concept Statement
- 3.3 Access
- 3.4 Site Layout, Uses and Density
- 3.5 Building Design - Scale and Massing
- 3.6 Landscaping
- 3.7 Drainage Solutions (including SUDS)

4 Sustainability

- 4.1 Introduction
- 4.2 Sustainability Issues
- 4.3 Design Implications

5 Ecology and Biodiversity

- 5.1 Introduction
- 5.2 Summary of the findings
- 5.3 Recommendations

6 Archaeology

7 Phasing and Implementation

- 7.1 Timetable for preparation and submission of Outline Planning Application
- 7.2 Phasing

Appendices

- A - Economic Viability (see separate document)
- B - Glossary of terms
- C - References

Haverhill Research Park - *Masterplan*



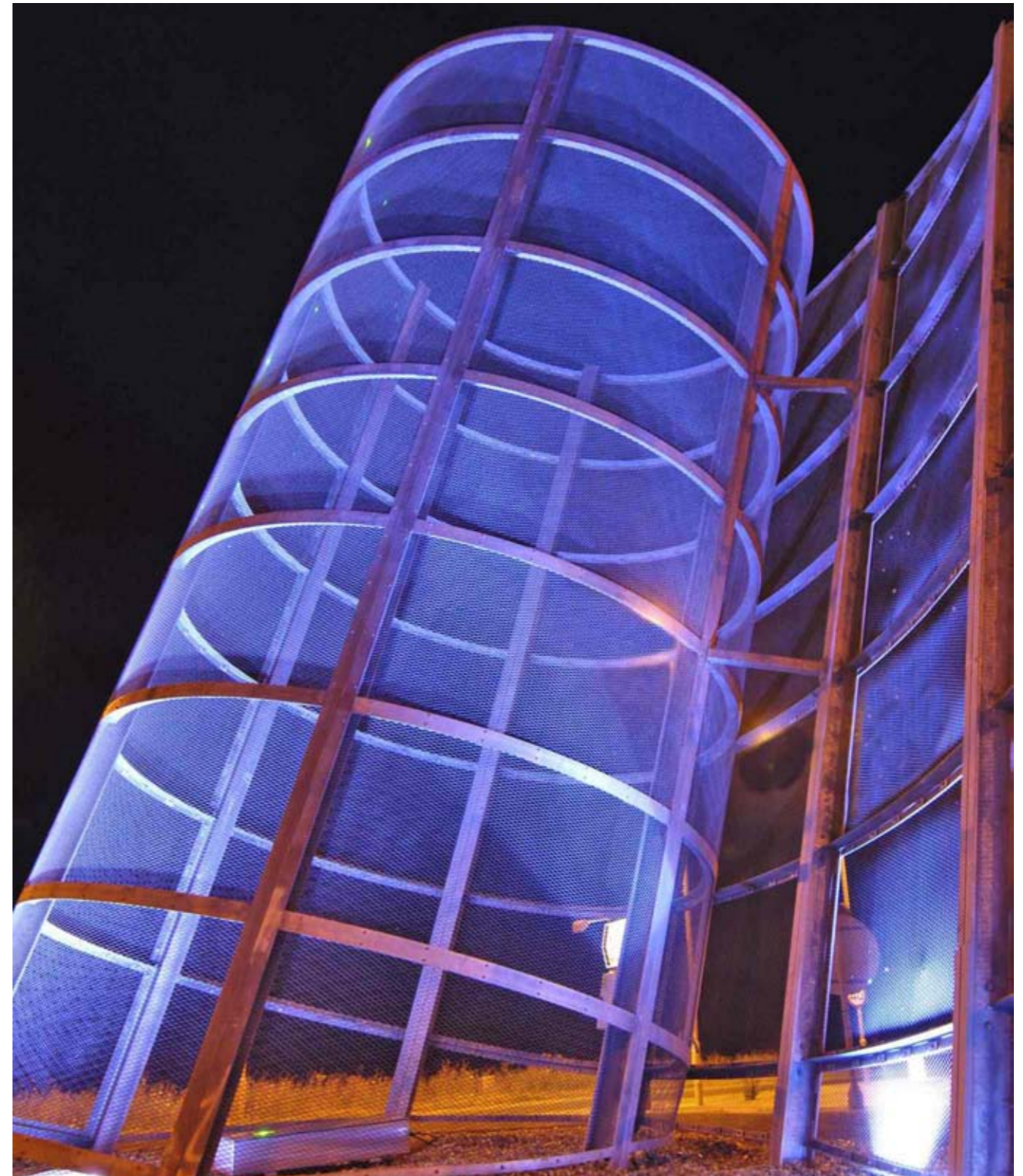
Introduction



1 Introduction

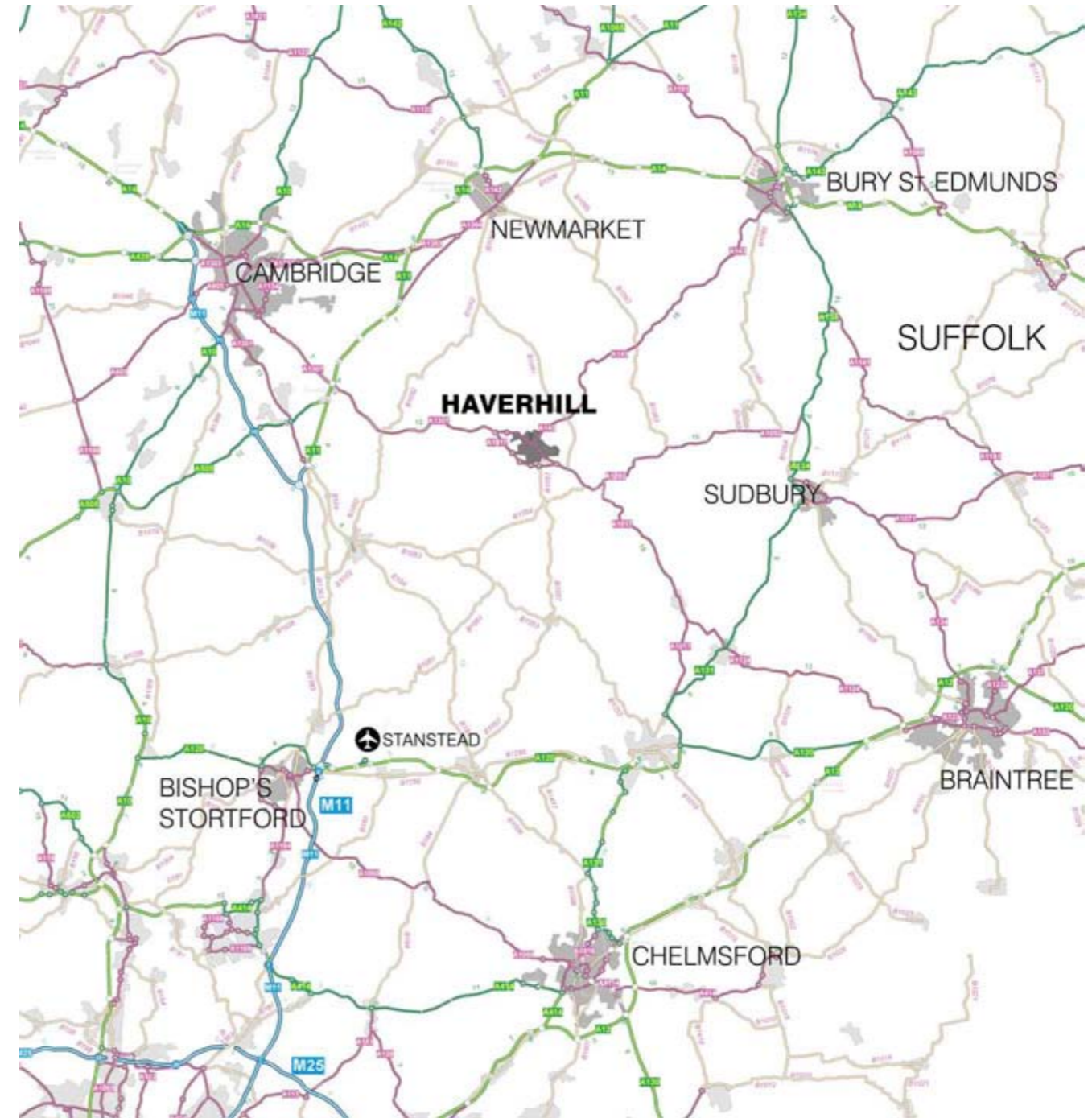
1.1 Purpose of Masterplan

- 1.1.1 This Masterplan has been prepared to demonstrate how a key development site on the outskirts of Haverhill should be designed and implemented. It follows the adoption of a “Concept Statement” for the development of the site, which sets out the Borough Council's planning requirements.
- 1.1.2 The Masterplan will define the amount of land available for development, the location of various uses, access arrangements, the phasing of the development, and overall design, layout and landscaping.
- 1.1.3 It is envisaged that the site will provide an impressive, “gateway” development to Haverhill comprising a high quality business/research park within an attractive, well-landscaped environment, incorporating landmark buildings of high architectural quality. In addition, approximately one-third of the site will be used to provide a compatible mix of other higher value commercial and residential uses to help off-set the significant infrastructure costs and ground re-modelling works needed to successfully develop the site.



1.2 Location

- 1.2.1 Haverhill is the second largest town in the Borough of St. Edmundsbury in Suffolk and is situated close to the borders of Cambridgeshire and Essex. The town lies on the A1307 between Cambridge and Colchester and is located at the junction of the A143 to Bury St. Edmunds.
- 1.2.2 Haverhill has excellent road links to the M11 and A14 and is approximately 30 minutes drive away from Bury St Edmunds, Cambridge and Stansted Airport. The town is part of the official Greater Cambridge Sub-Region and its unique position on the borders of three Counties, along with its proximity to Stansted Airport, has further enhanced its potential as a prime location for new businesses.
- 1.2.3 Haverhill has a busy, partly pedestrianised, town centre with major high street retailers and a large number of local shops, businesses and a regular market that supplies the needs of the town and the surrounding district. Leisure facilities include a new Arts Centre (which doubles as a theatre and cinema) and a well-equipped Leisure Centre. Manufacturing industry is also well established with local, national and international companies providing a variety of goods and services.
- 1.2.4 Haverhill also has a thriving business park on the southern edge of the town that extends to over 55 acres and which already provides a full range of buildings for industrial, distribution warehouse, office, trade counter and showroom uses. Over 29 acres have been developed to date and the park provides a home to Percy Dalton's World Famous Peanut Company, Buildbase, Culina Logisitics, Terence Barker Tanks, HID and Stagecoach. It also has a Days Inn Hotel and a Harvester Public House.
- 1.2.5 Haverhill does not have a strong, identified market for high quality office or research and development uses however, the developers believe that the location of the town, close to the established high quality business and research parks on the edge of Cambridge, and the Council's desire to provide a wider range of employment opportunities to reduce out-migration to jobs in Cambridge, could provide the basis for an exciting, new, mixed-use development - the "Haverhill Research Park".



Location of Haverhill



Map of Haverhill
(Site highlighted in red)



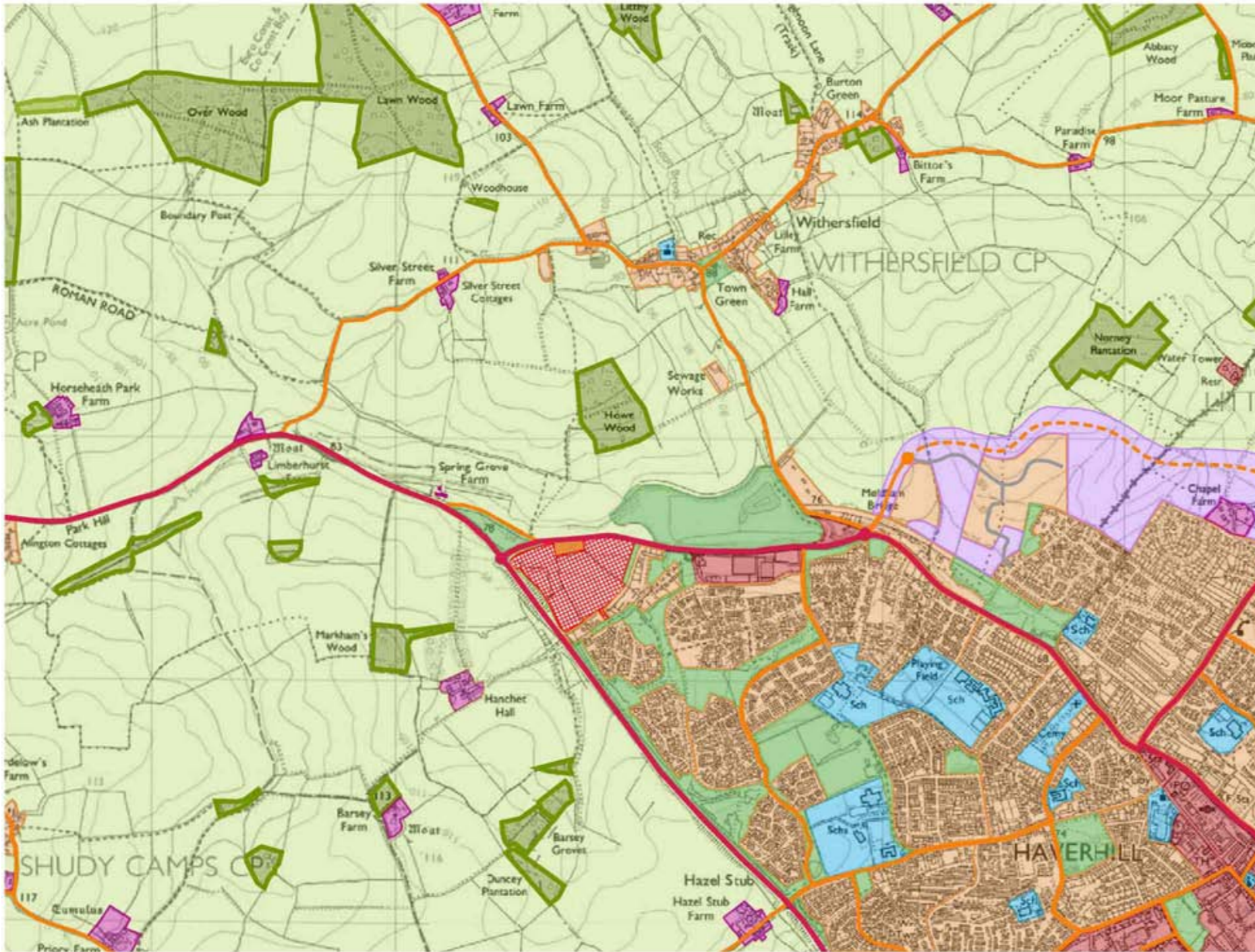
Site Connectivity

1.3 Character of the Area

- 1.3.1 Hanchett End is situated on a spur of land that forms the south side of a shallow valley tributary of the River Stour. Haverhill itself is located within the wider valley floor with rising land in almost all directions. This spur of land is most noticeable where it has been dissected by the by-pass to the north-east of Hanchett Hall.
- 1.3.2 Adjacent land uses include the existing residential area known as “Hanchett Village” to the south and east of the site, which is served by a Sainsbury's supermarket and a small retail park along the northern edge of the area, adjacent to the A1307.
- 1.3.3 To the north and west of the site lies open countryside; an area of gently undulating farmland under cereal cultivation and vacant grassland on the outskirts of Haverhill. This area also includes long sections of highway land adjacent to the two main roads (embankments, cuttings and former roads), which adjoin the northern and western boundaries of the site.



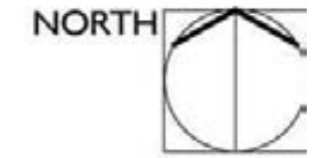
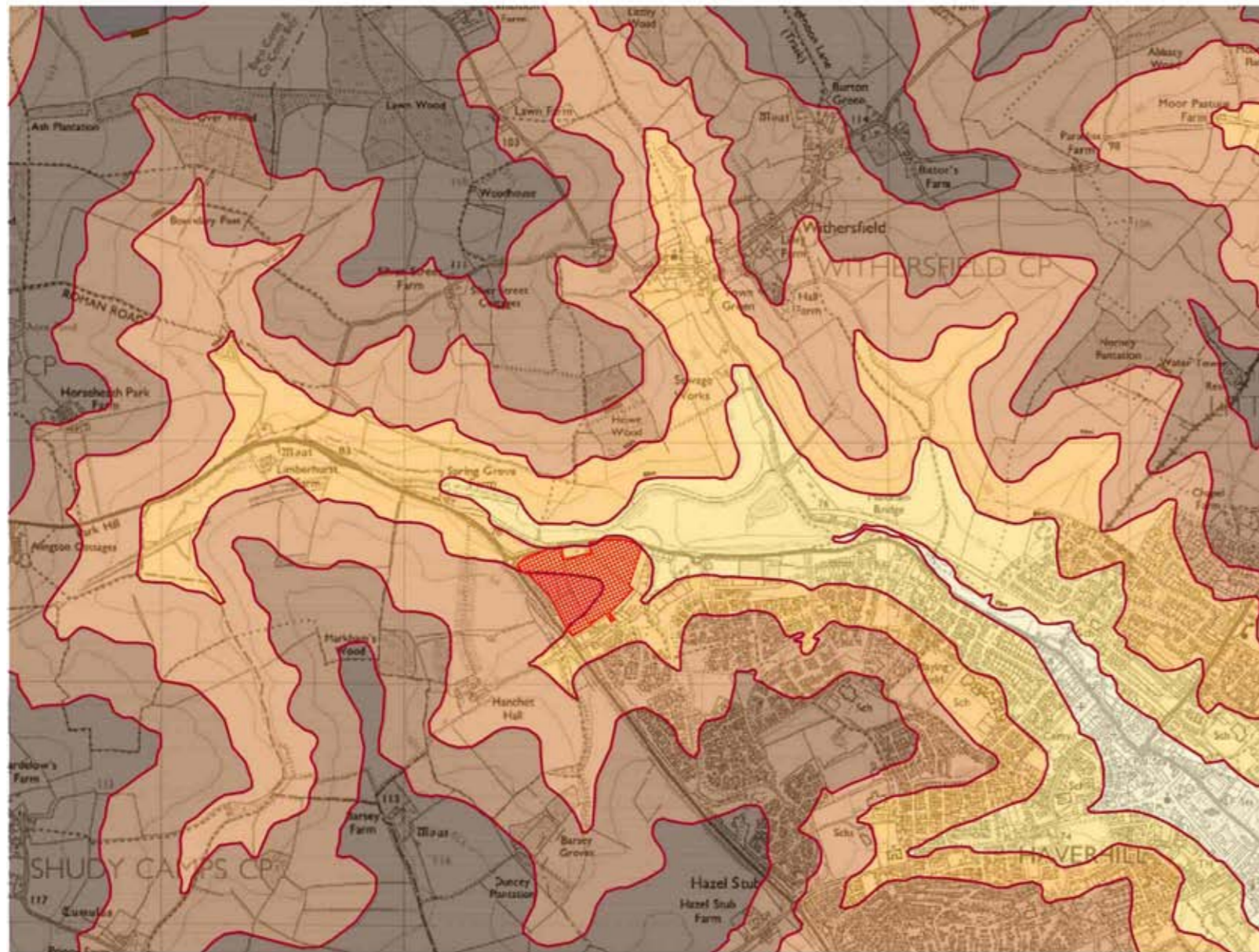
Bird's eye view of site



0 500m 1km
 Reproduced by permission of Ordnance Survey on behalf of Her Majesty's Stationery Office. © Crown Copyright 1998. All rights reserved. Licence number AR100034058.

Context - Site & Land Use

1.3.4 The land rises gently to the south-west of the “Spirit of Enterprise” roundabout and the A1017 to a crest (116m AOD) at Barsey Farm, just over the County boundary into Essex. The land to the north of the A1307 also rises to a similar “peak” just to the west of Wethersfield (119m AOD) at “Woodhouse”. The route of the A1307 Cambridge Road follows the line of the valley westwards from Haverhill towards Horseheath.



Reproduced by permission of Ordnance Survey, on behalf of Her Majesty's Stationery Office. © Crown Copyright 1998. All rights reserved. Licence number AR100034058.

Context - Site & Topography

1.3.5 The countryside to the west and north of the site is interspersed with small copses and larger areas of woodland, such as Howe Wood and Markham's Wood. The land immediately to the north of the A1307 is an area of flood meadow and wetland conservation area known as the Meldham Washlands, which includes a series of small ponds, streams and ditches. The land is a designated County Wildlife Site, on account of its nature conservation interest, and is used for public recreation.



Reproduced by permission of Ordnance Survey - on behalf of Her Majesty's Stationery Office. © Crown Copyright 1998. All rights reserved. Licence number AR10003405B.

Context - Site and Vegetation

1.4 The Site

- 1.4.1 The site is located on rising ground at the western edge of Haverhill next to “Hanchett Village” a relatively recent residential and commercial extension of the town. It is bounded by the Haverhill by-pass to the west (the A1017), the Haverhill to Cambridge road (the A1307) to the north, and existing housing development to the south.
- 1.4.2 The “Spirit of Enterprise” roundabout is situated at the most westerly corner of the site, where the A1017 meets the A1307, and marks the entrance to the town from the west. The site has long been recognised as having the potential to become a special “gateway” site at an important entry point to the town.
- 1.4.3 The site rises in a south-westerly direction from a generally level frontage where it adjoins the A1307 on its northern boundary, to the shoulder of the 8 metre deep cutting, which was formed as part of the construction of the A1017 (Haverhill southern by-pass).
- 1.4.4 The physical form of the site comprises approximately half of a smoothly sloping hill, with its south-western half cut off by the by-pass. The difference in level between the site frontage (adjacent to the A1307) and the highest point of the site varies between 10 and 14 metres.
- 1.4.5 The highest point of the site is situated approximately half-way along the western boundary of the site at the crest of the cutting to the A1017. The steepest gradients across the site are to the north, from the highest point towards the A1307.
- 1.4.6 The site consists of five adjoining fields, which are separated by hedges and/or fences from each other. With the exception of the field in the south-west corner which is currently grazed by horses, the whole site consists of grassland and has almost certainly been subject to arable cultivation in the fairly recent past. The site has relatively few natural landscape features but some of the original field boundaries are delineated by lengths of hedgerow, interspersed with trees, however some of these boundaries have deteriorated and no longer form continuous hedgerows.
- 1.4.7 The northern boundary of the site, adjoining the A1307 west of Hanchett House, is marked by a shallow drainage ditch and wide grassed verge (no footpath) and has no discernible landscape boundary features. Hanchett House, a large, modern bungalow, is situated on a large plot (approx. 0.66ha, 1.63 acres), which is not included within the development site boundary. Although the bungalow is in residential use, the Hanchett House site also contains commercial uses, including the open storage of caravans and a scaffolder's storage yard. The boundaries of the Hanchett House site, including the frontage to the A1307, are delineated by a mixed hedgerow that contains a number of trees of varying size and quality.

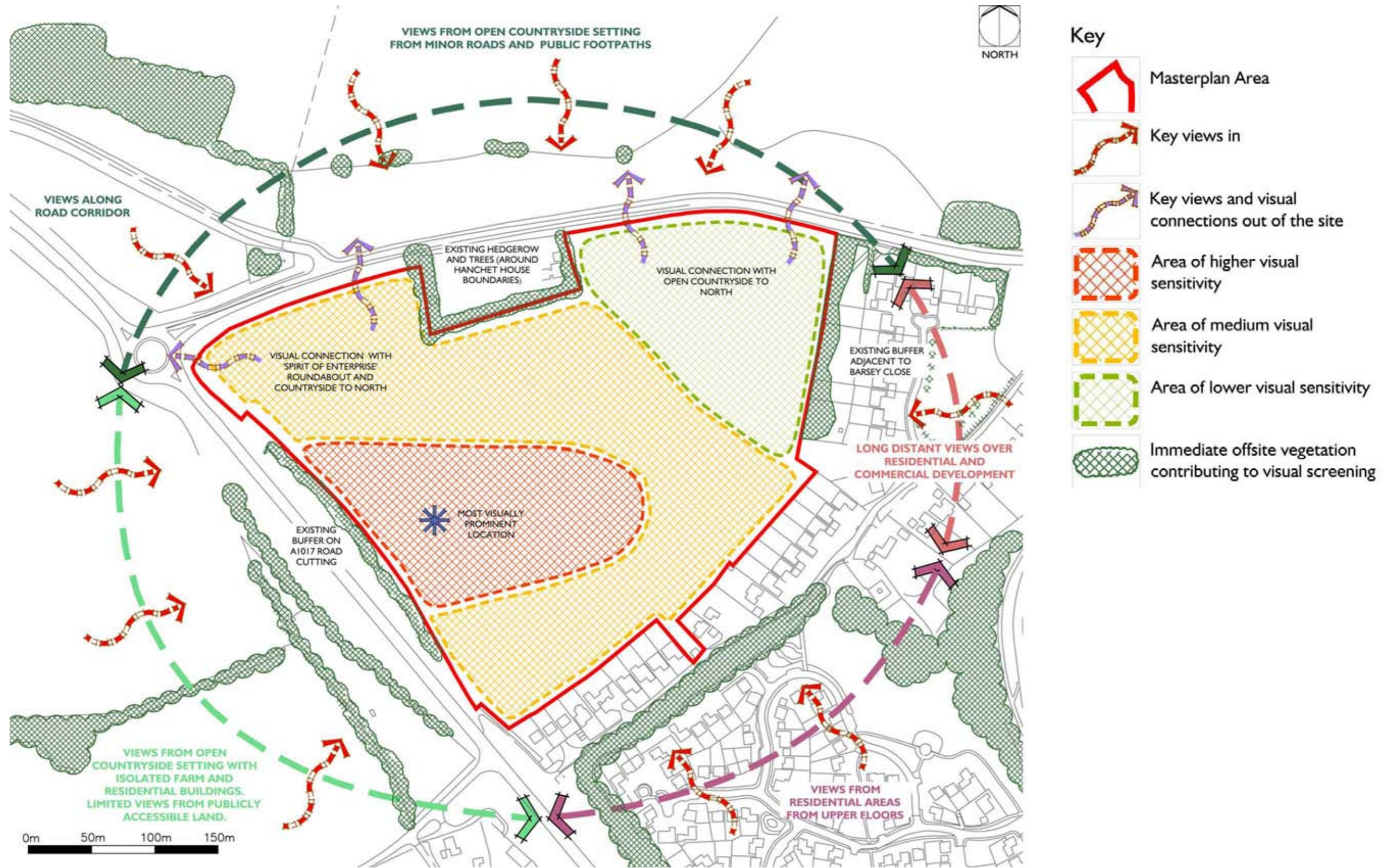
- 1.4.8 The western boundary of the site adjoins the A1017, which is in cutting for its entire length where it adjoins the site. The steep embankment (highway land) is planted with a variety of trees and shrubs and the site boundary at the crest of the embankment is delineated by a post and rail fence.
- 1.4.9 The south-east boundary of the site adjoins the residential area known as “Hanchett Village” and the land in this area slopes down towards the road known as Hanchett End. Houses along this boundary have rear gardens backing onto the site, although on the site itself there are no trees or hedges along its length. There are several, derelict, former farm buildings in the southern corner of the site, and a footpath link between Hanchett End and the A1017. There is also an existing access to the site from Hanchett End, between two houses.
- 1.4.10 Existing residential properties backing onto the site in Barsey Close have longer, extended rear gardens which include a previously planted woodland belt that provides an extensive buffer to the site. Some of the individual home owners have partially or fully cleared this woodland, however most properties are at least 40 metres from their rear boundaries.



The site from the A1017



Borders and Boundaries



Visual Analysis

1.5 Planning Policy Context

1.5.1 Policy HAV3 of the adopted Replacement St. Edmundsbury Local Plan allocates 12 hectares of land at Hanchett End as a strategic employment site, primarily for class B1 (business) and class B8 (storage or distribution) uses.

1.5.2 The Council's Core Strategy was recently adopted (14th December 2010) and policy CS9 of this document acknowledges the importance of providing additional employment development at Haverhill, to reduce out-migration, and confirms the allocation of the Hanchett End site as a strategic employment site.

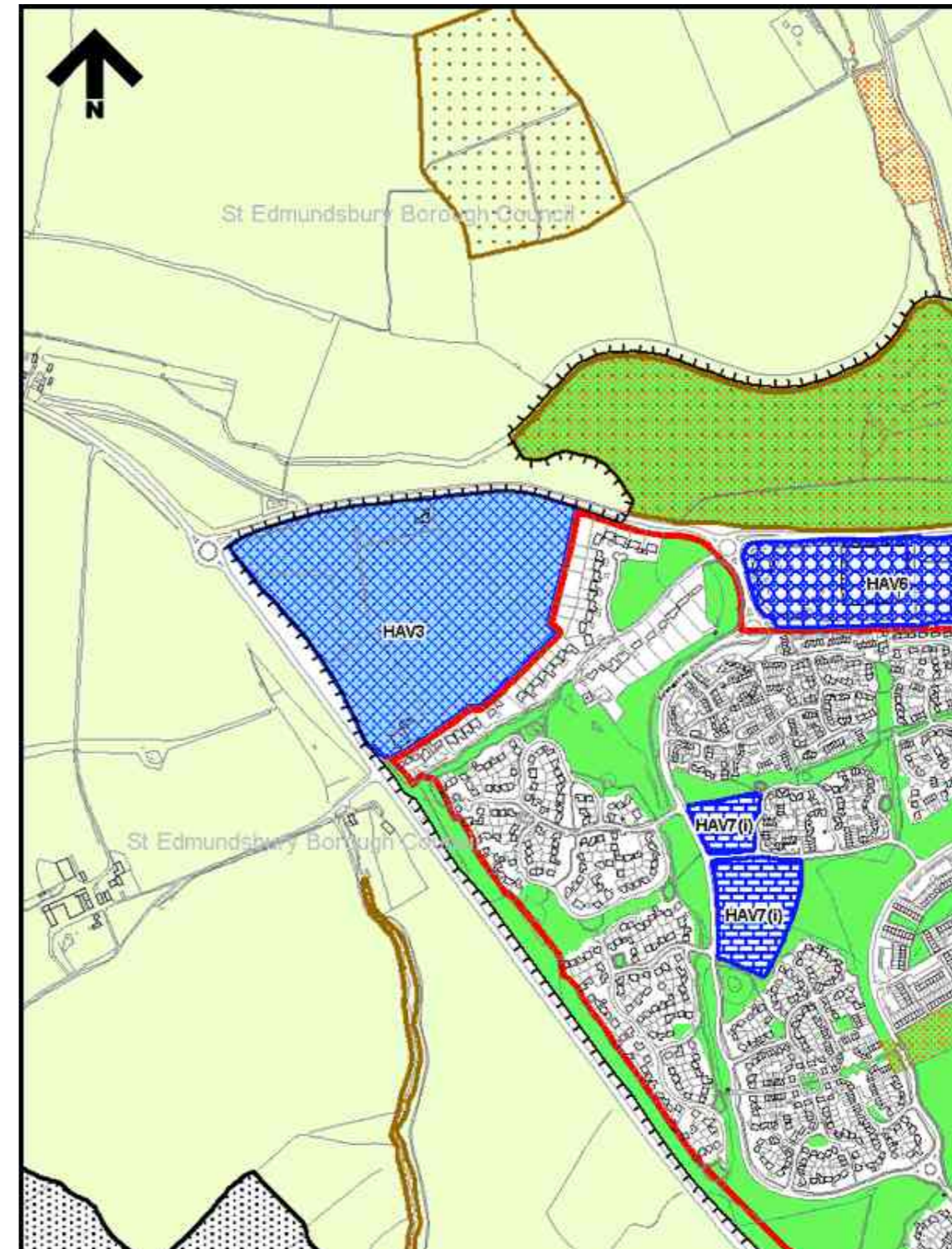
1.5.3 The Council's planning policies also state that the development of the site should be informed by a "Masterplan" for the site, and that applications for planning permission will only be considered once a Masterplan has been adopted.

1.5.4 Before any Masterplan can be adopted, there must also be public consultation on the content of the document. The developer of the site is expected to prepare the Masterplan in accordance with the Council's "Concept Statement" for the site.

1.5.5 The Borough Council prepared a Concept Statement for the Hanchett End strategic employment site earlier this year, which was adopted in September 2010. This statement contains a series of specific design principles that the Masterplan should include, which are summarised below:

- Vehicular access to the site should be from the A1307 at two separate locations and, due to the topography of the site, it is likely that these access roads would operate independently;
- The site layout should comprise a series of level platforms utilising cut and fill methods to minimise any requirement for the removal of soil from the site;
- A high standard of architectural design should be achieved within areas fronting onto the A1307 and buildings on the highest ground should be restricted in height;
- A landmark building or buildings should be located at the junction of the A1307 and the A1017. The key attribute of a landmark building should be design quality rather than just scale;
- New landscaping should provide a suitable buffer to existing residential properties adjoining the site and soften the impact of buildings on higher ground by planting the slopes between the level development platforms;
- Pedestrian and cycle links should be provided to the surrounding area and link with the existing footpath/cycleway network in adjoining residential areas;

- Biodiversity and habitat creation should be promoted through the development of the site;
- Sustainable drainage systems should be incorporated into the design and layout.



Extract from the Local Plan

- 1.5.6 The concept statement also acknowledges that the infrastructure costs associated with the commercial development of this sloping site could have a serious affect upon the delivery of a high quality business environment. As a consequence, the concept statement allows for the provision of "higher value" uses, in addition to the business park, provided that it can be demonstrated that the infrastructure costs will seriously jeopardise the delivery of the site, having regard to prevailing market conditions.
- 1.5.7 The Masterplan is considered to be the appropriate document to identify the amount, location and nature of such uses, provided they are appropriate to their location and have regard to market conditions and development viability.
- 1.5.8 As a result of this requirement, several economic viability appraisals were produced by Carisbrooke in November 2010. All these appraisals are contained in a separate appendix to this Masterplan, together with copies of the reports and detailed assessments that support the financial information and market analyses contained in these appraisals.
- 1.5.9 The economic viability appraisals demonstrate that for the Haverhill Research Park to be an economically viable project, at least one third of the site should be made available for higher value uses in order to help off-set the significant infrastructure costs that will be incurred to develop the site.



Concept Statement

1.6 Structure of the Masterplan

The document is set out as follows:

Section 2 Design Vision

This section outlines the vision for the successful development of the site and includes the spatial Masterplan itself.

Section 3 Design Principles

This section provides a detailed appraisal of how the overall design and layout of buildings and uses responds to both the constraints and the opportunities offered by the site. Any issues raised as part of the public consultation on the Masterplan will be included in the Design and Access Statement, which will form part of the Outline Planning Application.

The Concept Statement includes a summary of key Design Principles (see paragraph 1.5.5 above), and these cover matters such as: site layout, building design, landscaping, access, biodiversity and drainage. The Concept Statement also seeks to minimise the environmental impact of any proposed development and acknowledges that infrastructure costs will have an impact on the delivery of a high quality business environment. To this end, the Concept Statement includes the provision of “higher value” land uses to help off-set the high infrastructure costs, and looks to the Masterplan to define the amount, location and nature of such uses.

Section 4 Sustainability

This section explores the sustainability issues raised in the Concept Statement, as well as additional matters, and it outlines how the Masterplan responds to these issues. Greater detail will be included in the Design and Access Statement and other documents to be submitted as part of the Outline and Reserved Matters Planning Applications.

Section 5 Ecology and Biodiversity

This section explores and evaluates the effects that the proposed development will have on the existing ecology and biodiversity of the site, and is taken from the findings of the Phase 1 habitat survey and the reptile survey. This section also includes a series of suggested mitigation measures that would enhance the future biodiversity of the site once the development is completed.

Section 6 Phasing and Implementation

This section sets out the proposed timetable and phasing for the approval of the Masterplan and the submission of the outline and reserved matters planning applications. It also gives a guide to the likely implementation programme for the development.

Appendices

These will include a glossary of terms and references to the various documents used to inform the Masterplan, as well as where more information can be found.

Haverhill Research Park - *Masterplan*



Design Vision



2 Design Vision

2.1 Introduction

- 2.1.1 The Masterplan has evolved as a result of the detailed assessment, evaluation and consideration of many issues, which have been raised at various stages of the process. These issues, and their contribution to the evolution of the detailed spatial Masterplan, will be explored in greater detail in the Design and Access Statement, which will be submitted as part of the Outline Planning Application.
- 2.1.2 However, having a “vision” for the area to be developed forms the foundation of a Masterplan. It describes, in words, images and diagrams the kind of place the area will become; how much change is needed, of what type and over what time frame; realistic objectives for development; and what could be provided physically, economically and socially in the area.



2.2 The Vision

- 2.2.1 **The vision for the Haverhill Research Park is to create an impressive, “gateway” development to Haverhill comprising a high quality business/research park within an attractive, well-landscaped environment, incorporating landmark buildings of high architectural quality. In addition, approximately one-third of the site will be used to provide a compatible mix of other higher value commercial and residential uses to help off-set the significant infrastructure costs and ground re-modelling works needed to successfully develop the site.**

The development will also display the following characteristics:

- A mix of exciting and innovative, high quality architecture with landmark buildings at focal points and positive frontages located along the northern site boundary, and along the main access roads into the site;
- A series of well-designed and landscaped, mixed use public spaces linking the development to the surrounding countryside, the adjacent neighbourhood, local services and retail outlets;
- Environmentally, economically and socially sustainable, designed to cope with climate change;
- Good movement connections for pedestrians and vehicles, providing strong legible links to established routes and facilities with minimal environmental and visual impact to the local landscape;
- Attractive and successful streets and outdoor spaces that will encourage positive use by employees, residents and visitors alike, and will promote both recreation and ecological diversity;
- Promotion of energy, waste and resource efficiency through the overall design, layout and operation of the site
- Utilise sustainable urban drainage solutions, as appropriate;
- A substantial landscaped buffer zone along the southern boundary of the site, between the commercial and residential uses and the rear gardens of the properties in Hanchett End;
- Use of high quality landscape solutions and ground re-modelling to minimise and soften the visual impact of new buildings, particularly those on higher parts of the site;
- In addition to the provision of a high quality business/research park on the majority of the site, the inclusion of a range of other commercial and residential use, and dwelling types, including affordable housing, at varying, appropriate densities.



Landscape Integration Principles

- 1 Wide access road - separated from residential areas by tree planting and hedgerows ensure appropriate experience upon entering research park and to improve privacy for residents.
- 2 Key gateway / threshold at entrance to Research Park - potential for security barriers / kiosk.
- 3 Central hub / amenity space with filtered views from surrounding research park.
- 4 Key link to Spirit of Enterprise roundabout with views of landmark building on frontage.
- 5 Essential woodland buffer to soften visual impacts of development from open countryside to north.
- 6 Offsite woodland buffer to reinforce existing vegetation and create visual screen on A1017 road embankment.
- 7 Woodland buffer screens views from A1017 in south-west corner of site.
- 8 Essential woodland buffer to screen visual impacts of Research Park and housing from adjacent residential areas.

Landscape Strategy

2.3 The Masterplan



The Haverhill Research Park Masterplan

Haverhill Research Park - *Masterplan*



Design Principles



3 Design Principles

3.1 Introduction

3.1.1 This section includes a summary of the principles outlined in the Concept Statement (see below), and explains how the Masterplan has been guided by those principles. The main principles that can be extrapolated from the Concept Statement are set out below, summarised under a series of topic headings.

1 Access

- To be taken from the A1307 at two separate locations
- Two access roads not likely to be linked, but operate independently
- New pedestrian and cycle links to connect with existing networks in adjoining areas.

2 Site Layout

- Must make efficient use of the site, taking account of its sloping nature
- Create a series of level platforms, utilising cut and fill methods
- Minimise requirement for any soil to be removed from the site.

3 Building Design

- High standard of design required throughout the site
- Development on the highest ground to be restricted in height to respond to topography
- Areas with frontage to the A1307 to achieve high standards of architecture within a landscaped setting
- That part of site fronting the A1307 at its junction with the A1017 is particularly important, and will require a landmark building or buildings; a similar approach is to be taken at the north-east entrance to the site.

4 Landscaping

- Provide a 20m buffer zone to the rear of residential properties fronting Hanchett End
- Soften the impact of buildings on higher ground and provide a backdrop to buildings on the lower areas by planting the slopes between the level terraces
- Enhance the setting of the frontage with the A1307
- Minimise visual impact on the surrounding countryside
- Optimise ecological enhancement
- Create a sense of spaciousness and quality appropriate to the aspirations of the community to attract and retain prestige businesses at this location.

5 Biodiversity

- Identification of any existing habitats and protected species
- Development offers the potential to promote biodiversity and habitat creation.

6 Drainage

- Site to be served by adequate surface water and foul drainage, and to prevent flooding and pollution
- Sustainable drainage methods to be incorporated together with pollution prevention measures and details of responsibilities for maintenance
- Masterplan to make reference to the need for a flood risk assessment and investigation of land contamination to be submitted with any planning application for the site.

7 Sustainability

Development should seek to minimise environmental impacts, through:

- Energy - assessment of ongoing energy requirements for all buildings, in accordance with current requirements; necessary to demonstrate why more than the minimum requirement cannot be achieved
- Transport - seek to minimise car movement by encouraging the use of cycling and public transport (a green travel plan for the employment areas will be required to be prepared and implemented)
- Water - minimise water consumption and flood risk through low-water demand technologies (e.g. grey water recycling), integrated sustainable drainage systems, and structural landscaping
- Biodiversity - landscaping should be used for habitat creation and wildlife links, as well as buildings (where possible)
- Environmental impact - minimise noise arising from plant, equipment, transport and associated activities, and similarly light pollution
- Waste - production of waste to be minimised and consideration of means of dealing with any waste produced.

3.1.2 In addition, the Concept Statement deals with the issue of infrastructure delivery and development viability, acknowledging that the infrastructure costs associated with the commercial development of this sloping site could have a serious affect upon the delivery of a high quality business environment. As a consequence, the concept statement allows for the provision of “higher value” uses, in addition to the business/research park.

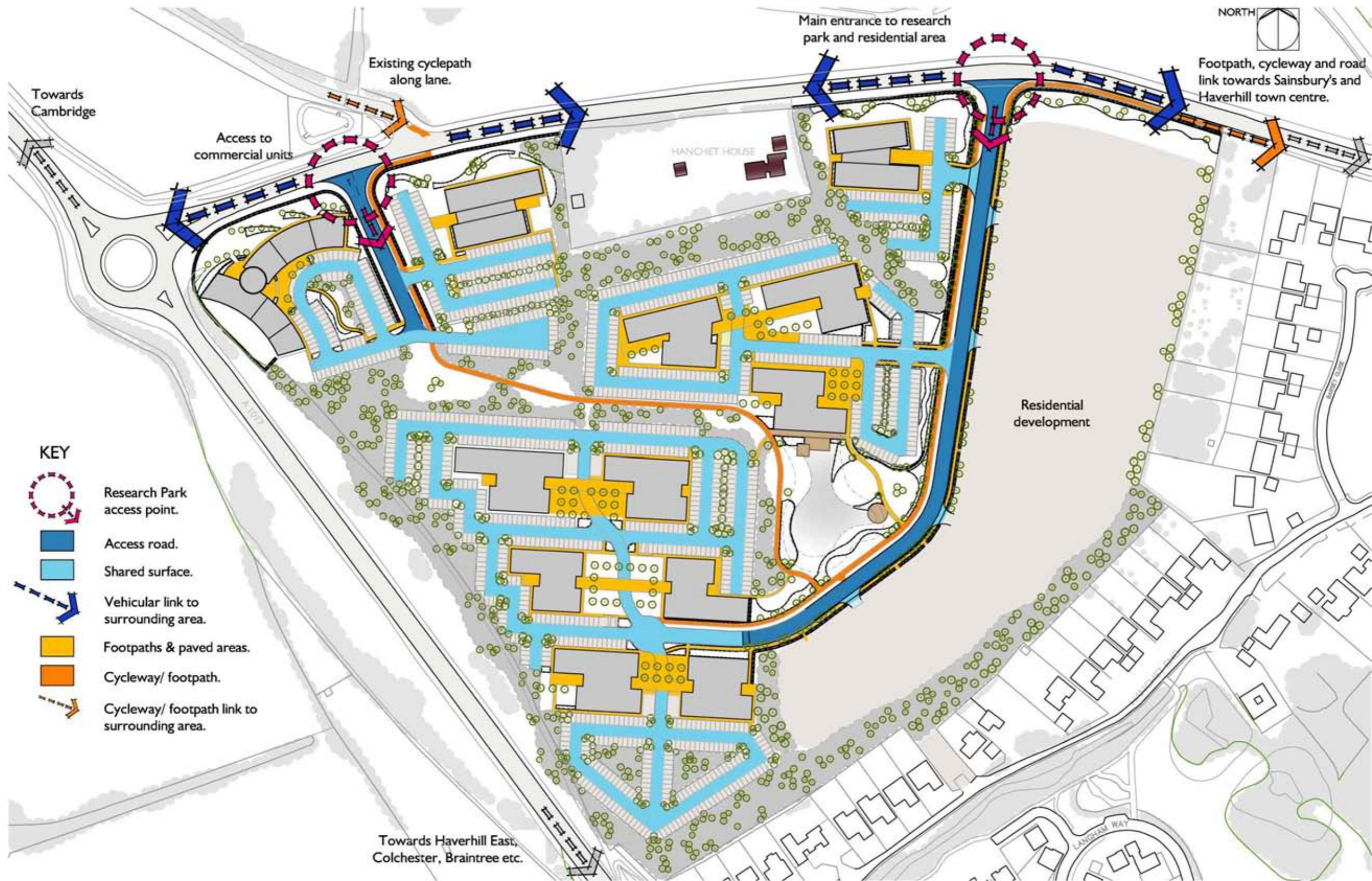
3.1.3 Subject to the detailed assessment of the economic viability information provided, the Council is content that the draft Masterplan could include higher value commercial and residential elements.

3.2 Concept Statement



3.3 Access

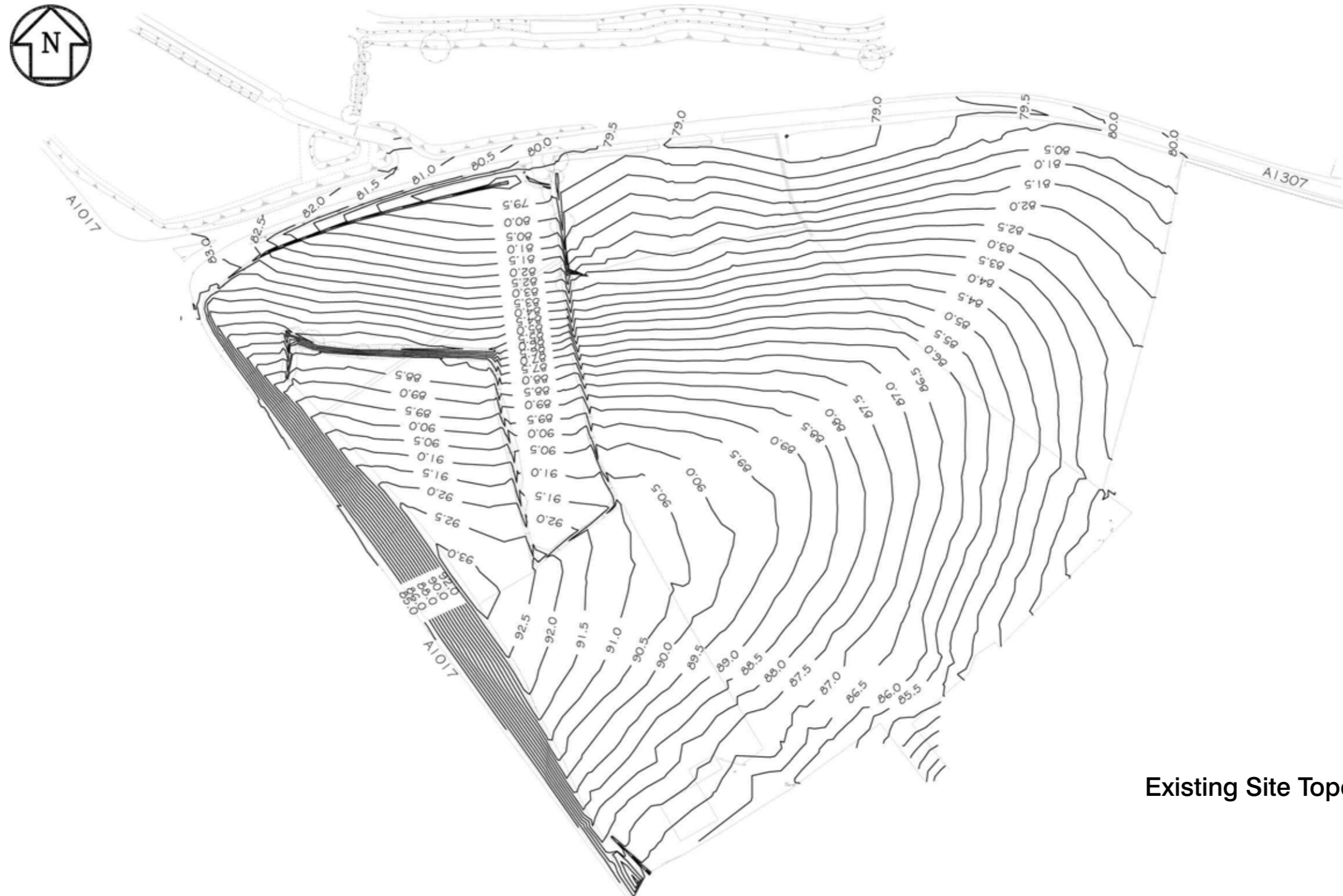
- 3.3.1 Two points of access will be created to the site - the main access, which will serve both the research park and the residential area, will be located on the A1307 approximately 110m from the eastern edge of the site; the second access will also be located off the A1307, approximately 100m east of the "Spirit of Enterprise" roundabout, and will serve the area of higher value commercial uses (hotel, restaurant, public house etc).
- 3.3.2 Due to the topography of the site (and the design of the ground re-modelling works to create level platforms), the two access roads will operate independently without any direct linkage between the two within the site.
- 3.3.3 The existing access to the site from Hanchett End is not considered to be appropriate or suitable for vehicular traffic, or for use as a pedestrian/cycle route due to the nature and character of Hanchett End at this point. The land between number 10 Hanchett End and Button Cap Cottage, will not form part of the overall development proposals and is likely to form a plot for a single dwelling accessed from Hanchett End.
- 3.3.4 A new footpath/cycleway will be created along the A1307 from the main entrance road into the site (within the existing highway boundary), to the roundabout (and existing footpath) adjacent to the Sainsbury's supermarket. This will provide a direct route less than 500m in length, from the edge of the new residential area to the existing supermarket.
- 3.3.5 The nearest bus stop to the site is adjacent to the Sainsbury's supermarket on the A1307, approximately 450 metres from the site's eastern boundary. The bus routes 13, 13A, 13B and X13 provide a regular (Monday - Saturday) service to Cambridge every 30 minutes. Journey times are around 45 minutes to central Cambridge, although the express service (X13) offers reduced journey times of just over 35 minutes. Route 341 (Haverhill Town Service) also runs from the same bus stop and provides links to the town centre. The potential of providing a further bus stop along the A1307 frontage to the site will also be explored.
- 3.3.6 Haverhill does not have a railway station. The nearest railway station is at Great Chesterford (15 miles away) on the Cambridge - Liverpool Street line, which also gives access to Stansted airport.



Access

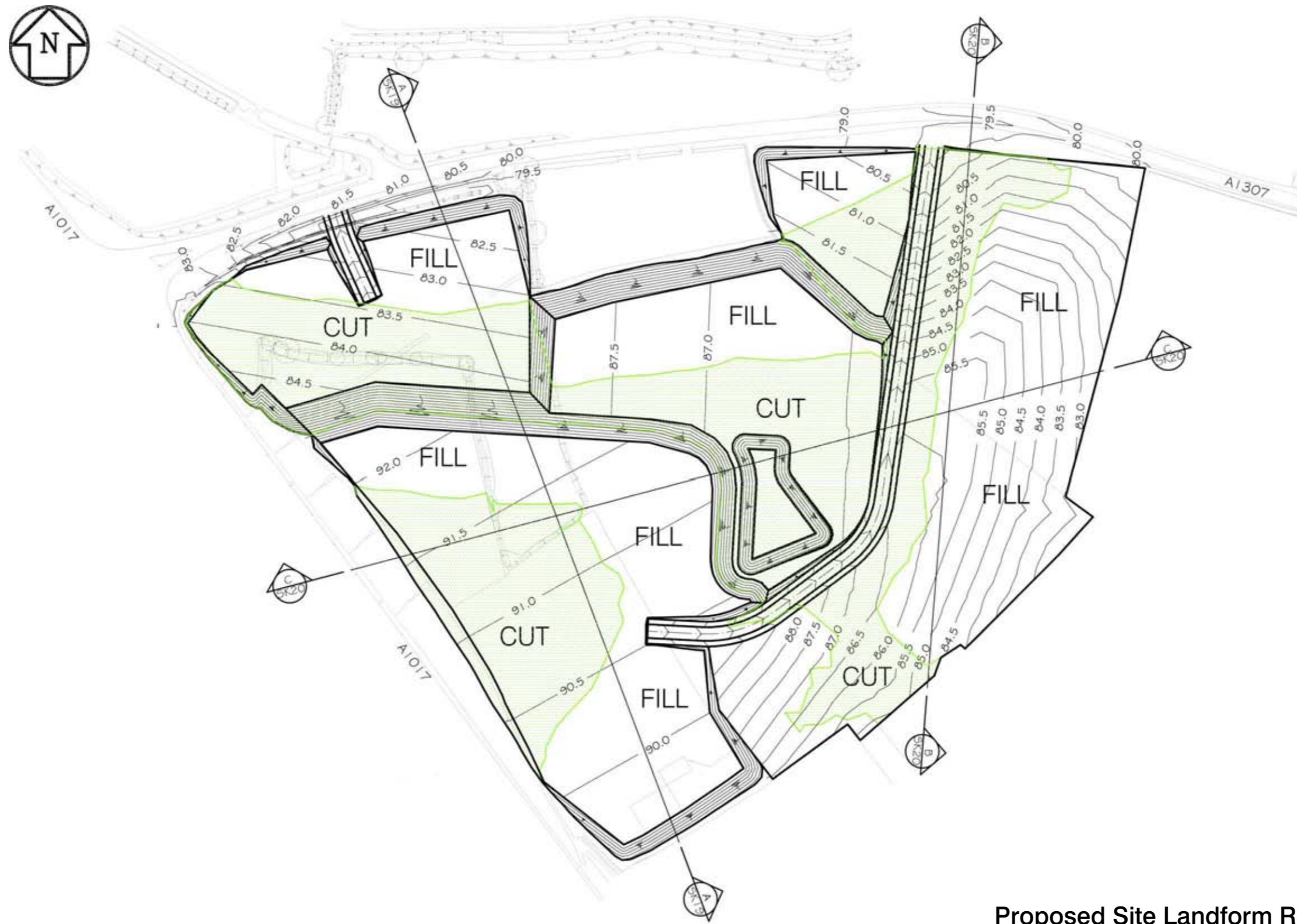
3.4 Site Layout, Uses and Density

3.4.1 The existing topography of the site is such that it will be necessary to carry out significant ground re-modelling, using a balanced “cut and fill” approach to create a series of level development platforms, divided by more steeply sloping embankments, which accommodate the changes in level between the platforms.

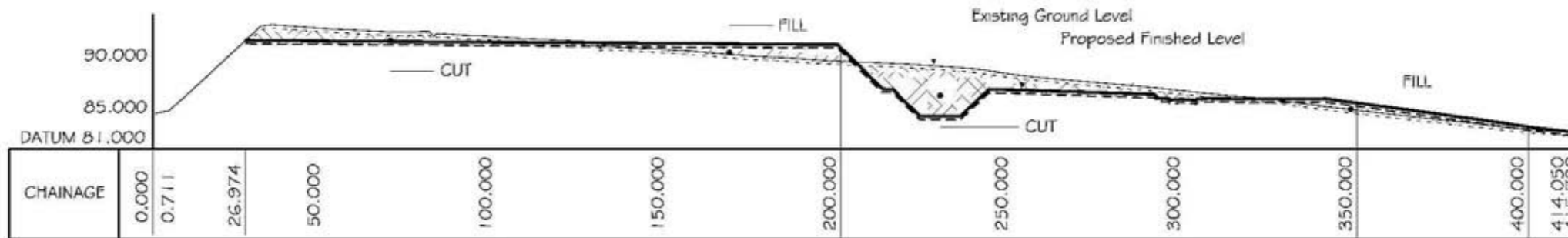
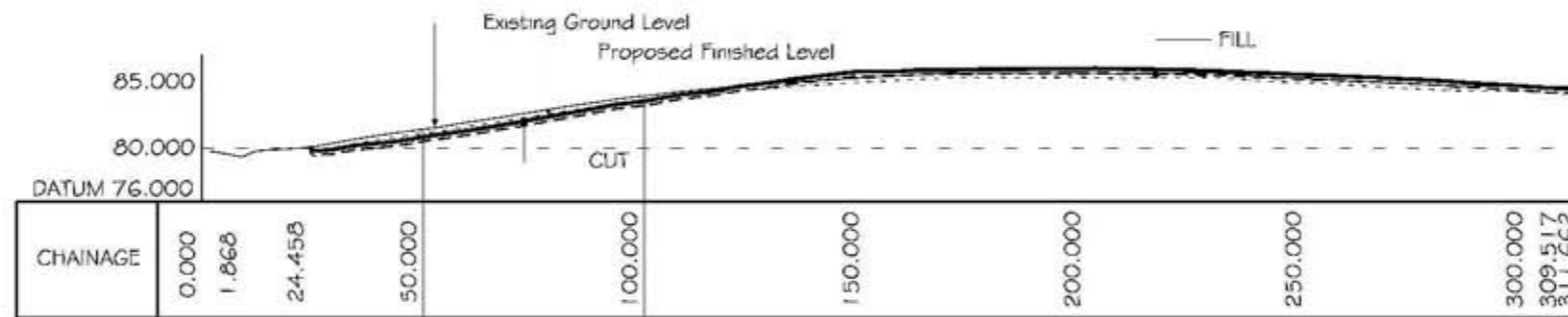
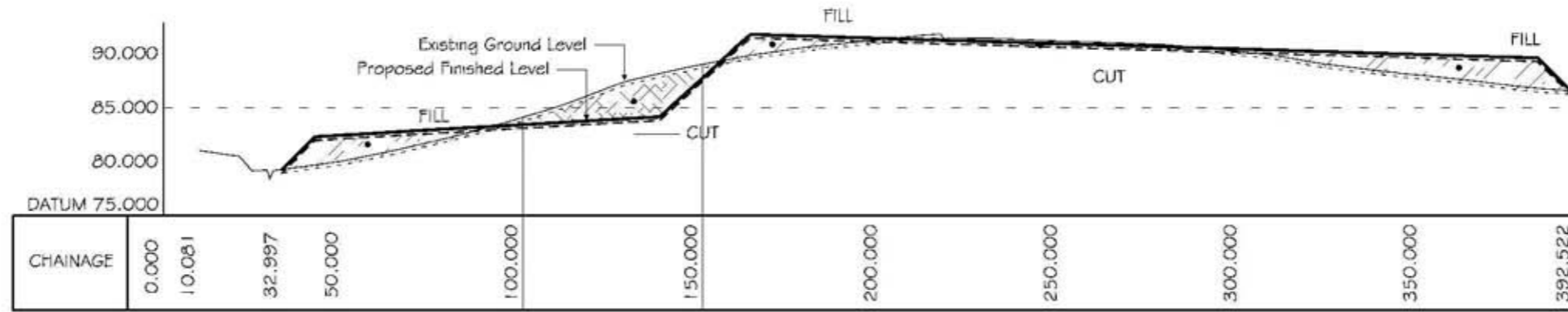


Existing Site Topography

- 3.4.2 In order to keep the cost of this infrastructure work to a minimum, it has been carefully and sensitively designed to ensure that there will be no need to either take material away from the site, or to import material to make up levels. As well as benefiting the economic viability of the whole project, this “cut and fill” balance will significantly reduce the amount of lorry movements to and from the site during this early phase of development.
- 3.4.3 The proposed ground re-modelling work will also have the added benefit of lowering the highest parts of the site, thereby reducing the visual impact of new buildings in this area and “softening” the current sharp landform edge.
- 3.4.4 The maximum gradient of the embankments between the development platforms will be 1:3, and they will be strongly landscaped to create a “woodland framework”, which will give a natural structure to the new landscape and help to reduce the visual impact of the new buildings on the surrounding countryside.
- 3.4.5 The main access road into the site, serving the research park and residential area, will run southwards from the A1307, rising between the development platforms at a suitable gradient for highway design. It will then curve westwards, following the rise in level to the highest point of the site.
- 3.4.6 The first level of terracing next to the A1307 and the “Spirit of Enterprise” roundabout, will provide the platform for the higher value commercial uses. These sites will be formed at approximately the same level as the road to create opportunities for a landmark building (or buildings) on this key approach to the town.
- 3.4.7 Higher platforms will be created, stepping up the site and following the existing shape of the land, while the steeper embankments between them, substantially planted, will echo the form of the existing site while providing a green backdrop to the buildings on the lower platforms.



Proposed Site Landform Remodelling



Section C - C

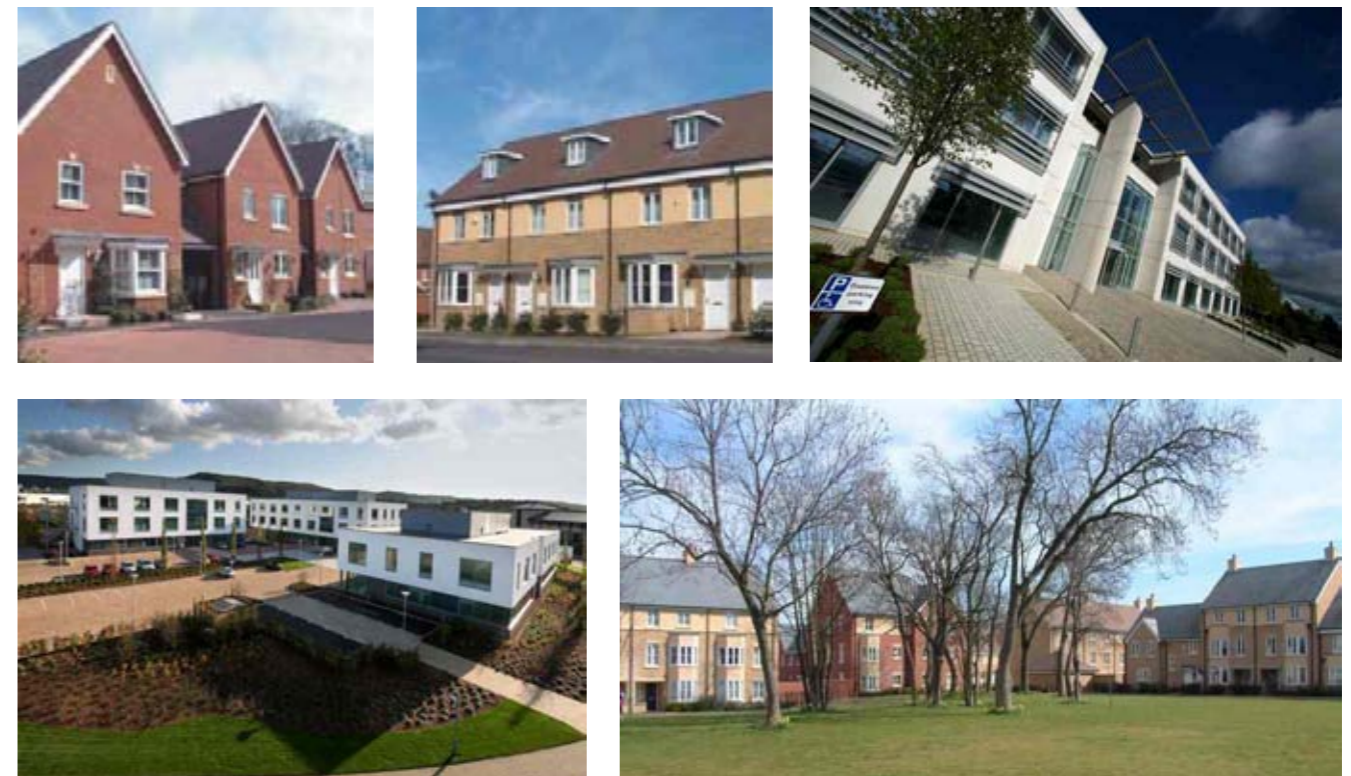
Not To Scale

1:3 Horizontal to Vertical exaggeration

Proposed Site Landform Remodelling Sections

- 3.4.8 The layout of the proposed uses with the site has been determined by several fundamental design principles:
- The points of access into the site;
 - The topography of the site and the creation of the development platforms;
 - The need to facilitate the most efficient use of the site;
 - The location of landmark buildings;
 - The need to respect adjoining land uses, particularly the residential area to the south-east; and,
 - The provision of a new landscape structure that minimises the visual impact of new buildings and optimises the ecological enhancement of the site.
- 3.4.9 The proposed layout and location of land uses is shown on the landscape strategy drawing and masterplan (see pages 16-17) and comprises:
- 19.5 acres (7.9 ha) of land (c.450,000 square feet) for a new business/research park, comprising three distinct development platforms focused on a centrally located area of strategic public open space containing the attenuation pond;
 - 1.5 acres (0.61 ha) of land for supporting, higher value commercial uses adjacent to the A1307 at the “Spirit of Enterprise” roundabout at this stage it is envisaged that these uses may comprise a hotel (the landmark building), restaurant, public house, and possibly offices (B1);
 - 8.25 acres net (3.34 ha), of land for residential uses, comprising mostly houses, including affordable housing (at least 10% of the total), and a residential care home.
- 3.4.10 This layout of uses will provide a compatible mixed use development, focused on a high quality business/research park. The location of the proposed uses has been carefully considered and reflects the need to create a “gateway” development at the entrance to Haverhill that is both economically viable, and provides an attractive, well-landscaped environment.
- 3.4.11 Research has demonstrated that the whole site is not needed to provide a high quality business/research park, because there is insufficient demand. If the costs of infrastructure provision and ground re-modelling are taken into account, the development of the site solely for a business/research park is not economically viable. The higher value commercial and residential uses proposed will subsidise these costs, enabling the creation of an attractive mixed use development that meets the design principles set out in the Council's Concept Statement.
- 3.4.12 The density of development across the whole site is relatively low, largely because of the substantial areas of open space, structural landscaping, parking and access roads. Within the research park area, the likely area of built footprint compared to the area as a whole is only 20%. Within the area of higher value commercial uses, the built density is likely to represent about 50% of the total area of the plot. Within the residential area, the average density is likely to be between 30 and 40 dwellings to the hectare, although in certain areas the density may be higher (e.g. for a residential care home), and in some areas (e.g. for “executive” housing) the density may be lower.

- 3.4.13 The type, scale and density of dwellings in the residential area will be determined prior to the submission of the outline planning application and will be informed by the following:
- The provision of a range of densities to create a variety of building forms with different characteristics within the proposed development area;
 - The desire to offer a wide choice of dwelling type and tenure;
 - The need to maximise the revenue raised by this part of the development, which is needed to subsidise the costs of infrastructure provision and ground re-modelling for the site as a whole, and to comply with the Council's requirement for at least 10% affordable housing; and,
 - The need to respect the nature and the scale of adjacent development.
- 3.4.14 The mix of uses proposed, although not completely finalised at this stage, will create an attractive development where the different land uses will complement each other, reducing the need to travel in certain situations. The inclusion of residential uses close to both employment and local services, represents a sustainable option that will create a synergy between the various uses. The commercial uses will also generate an evening economy that could be supported by both employees and residential (new and existing) alike.
- 3.4.15 The potential to relieve the residential parking pressure will be explored through the possible shared use of the business park parking areas nearest the housing areas.



Conceptual Architectural Imagery

3.5 Building Design - Scale and Massing

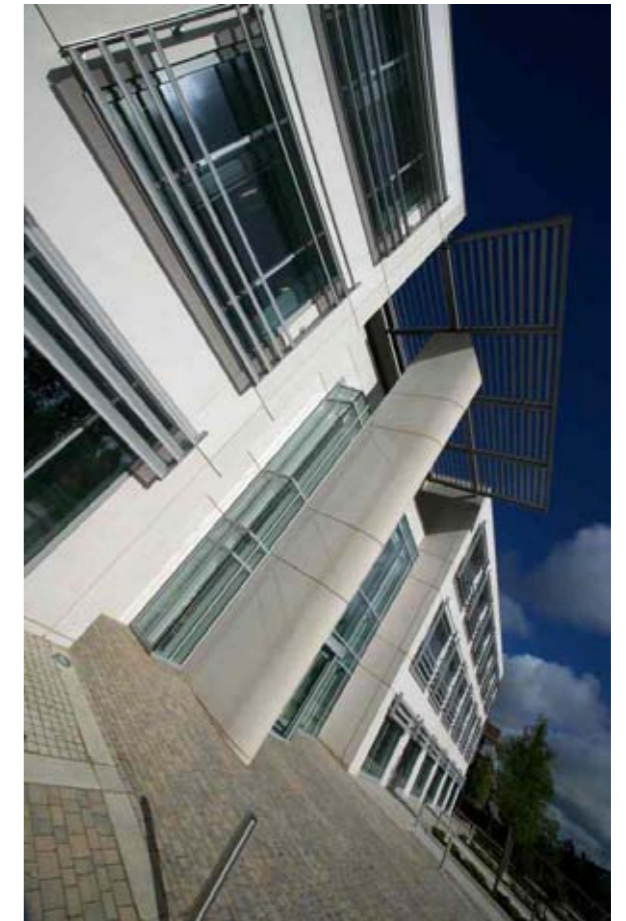
3.5.1 Building heights will vary across the site in response to the following factors:
The finished height of the landform and its visual sensitivity;

- The need to respond to local context and character, such as integrating the proposed development to the western edge of the town;
- The position of the building in relation to both the existing and proposed road hierarchy;
- The need to create “gateway” and “landmark” buildings and features; and,
- The relation of buildings to areas of open space within the development.
- Functionality

3.5.2 The new buildings in the research park area of the site will be of a high architectural standard and set within an attractive landscaped setting. These two factors are seen as an essential part of the creation of a prestigious, gateway development to the town, and a key factor influencing the rental value. Building heights will vary across the site in response to; location, topography, and functionality, to create a dynamic roofscape.

3.5.3 Sections of the commercial buildings on the “gateway” development platform might be 5 or even 6 storeys in height (in part), although it is expected that the majority of the building footprints will not exceed 3 or 4 storeys. Gateway and landmark buildings will also be defined more by their design quality rather than just an increase in scale.

3.5.4 The residential area is likely to comprise a series of distinct plots which will provide a strong frontage to the main entrance road into the site and create a series of discrete neighbourhoods, including areas of public open space. The detailed design and layout of residential areas will be developed prior to submission of the outline planning application.



Research Parks - Architectural styles



Indicative building heights across the Research Park

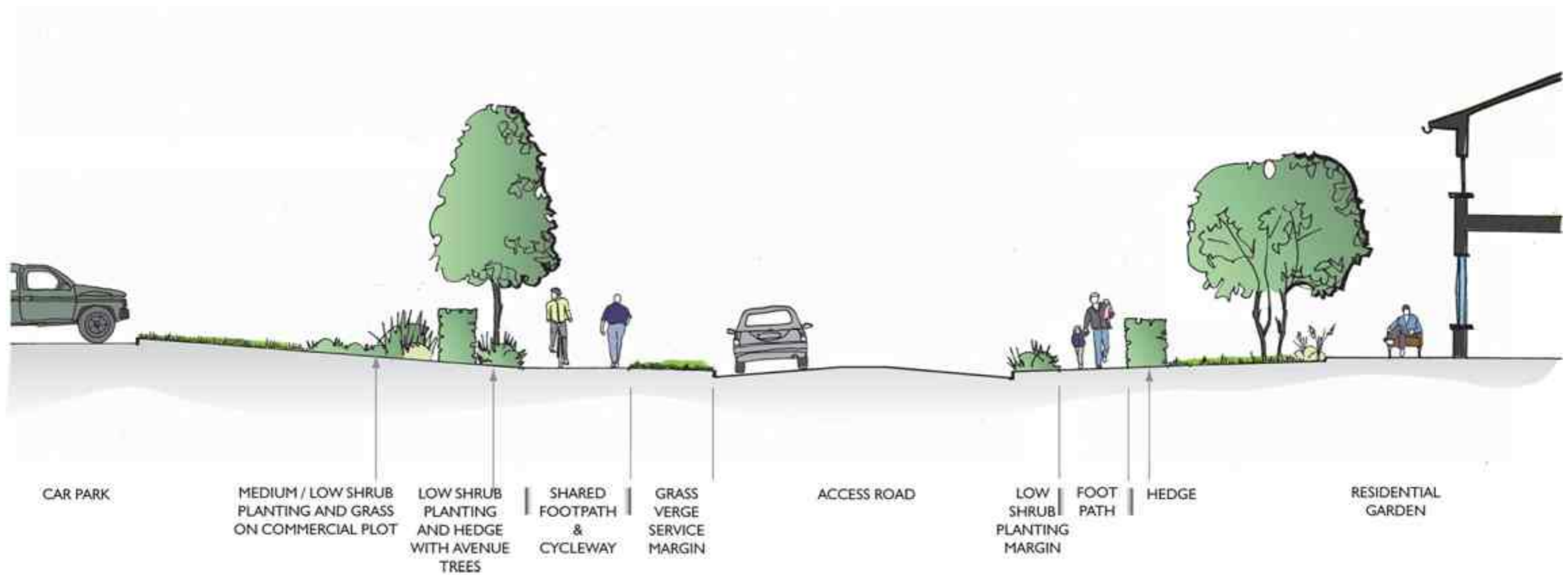
3.6 Landscaping

- 3.6.1 The landscape infrastructure proposals for the development of the site (see Green Infrastructure plan) are based on the following principles:
- To minimise visual impact on the surrounding countryside by softening the impact of buildings on higher ground and providing a backdrop to buildings on the lower areas by planting the embankments between the plots;
 - To enhance the setting of landmark and gateway buildings on the site frontage and to provide an attractive, well landscaped main entrance to the site;
 - To create a sense of spaciousness and quality within the research park area to attract and retain prestige businesses at this location;
 - To create a sense of quality within the residential area to attract residents and foster a sense of community;
 - To provide optimum ecological enhancement of the site, and the sustainable drainage features.
- 3.6.2 The developers understand the benefit of “advance” planting, in terms of ensuring that the landscape structure is planted at the earliest opportunity so that it can be well established by the time the buildings are occupied. To this end, they intend to plant the woodland buffer around the periphery of the site and on the embankments between the development platforms immediately after the completion of the ground re-modelling works.
- 3.6.3 The overall concept is to create a series of “woodland areas” around the built areas of the research park campus, which will link up between the main development platforms to produce wildlife corridors and form a characteristic feature of the development. It will also help to minimise the visual impact of the new buildings in views from the surrounding countryside. In addition, a substantial area of woodland buffer planting will be provided along the rear boundaries of those properties in Hanchett End that adjoin the site. These woodland areas will provide a substantial landscaped buffer between the houses and bungalows in Hanchett End and the new buildings and parking areas on the site, screening the new development in views from the south. The existing gradients of the rear gardens to these properties will also help to achieve this effect. These areas of woodland buffer planting will also act as wildlife corridors through the site. (See detailed sections through these areas).
- 3.6.4 As a consequence of the landscape infrastructure proposed, the commercial areas fronting onto the A1307 will have substantial wooded areas as a backdrop. In addition, to the east and west of Hanchett House, the gateway and landmark buildings will be set behind a new native hedgerow complemented by semi-mature and mature tree planting.
- 3.6.5 As a result of the landscape strategy proposed, it is not envisaged that there would be any need for visually intrusive sections of high security fencing.

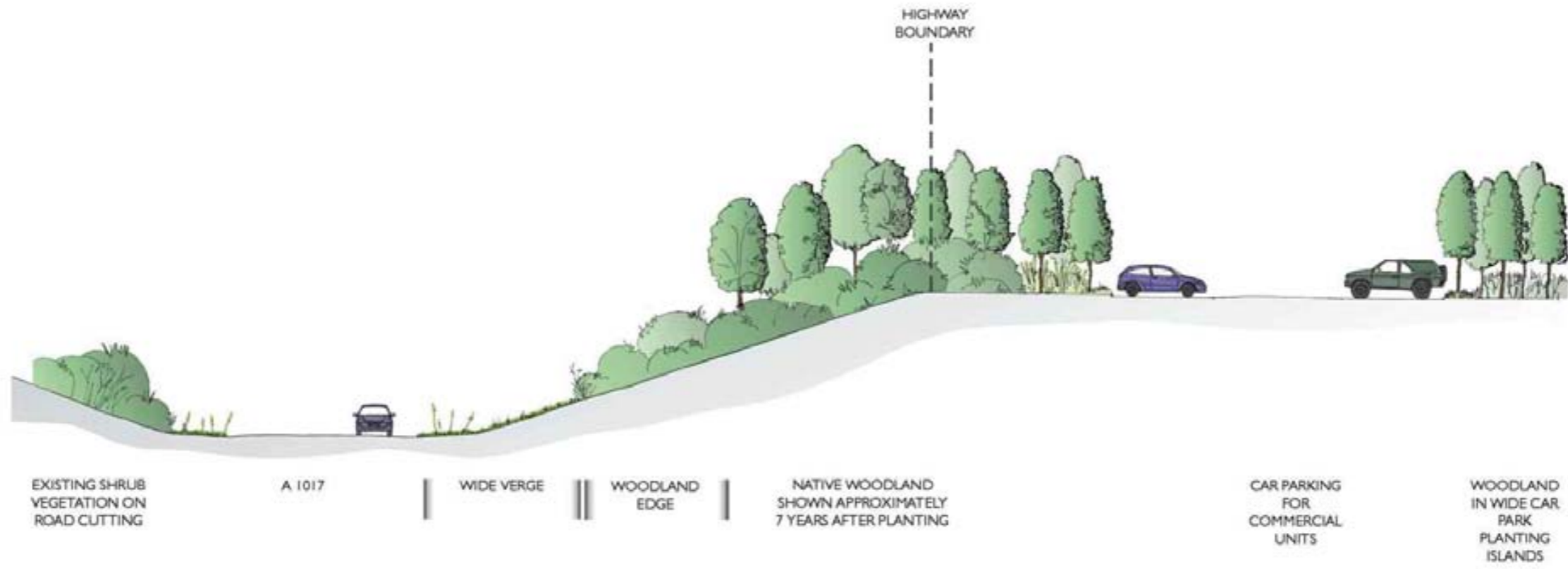


Green Infrastructure Plan
(With Section Key)

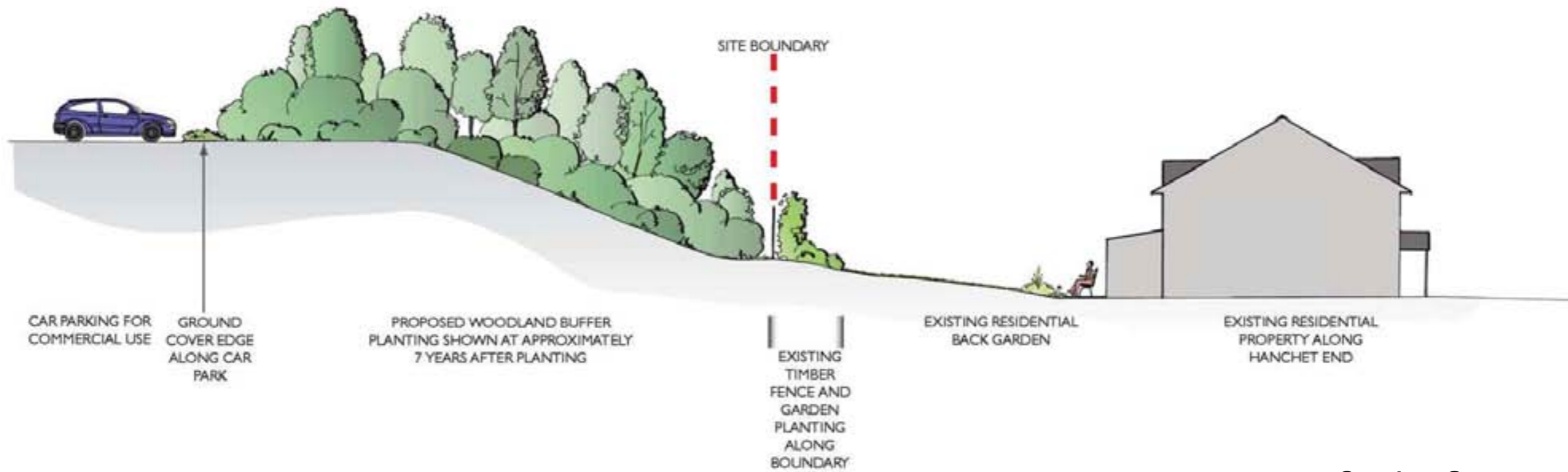
- 3.6.6 A wide road corridor will provide access to the research park and residential areas. This will include a footpath and a footpath/cycleway, together with informal groups of trees along both sides of the road (see Green Infrastructure plan). Hedgerows will flank the access road on each side, providing separation between the road and the buildings fronting onto it.
- 3.6.7 It is expected that some woodland buffer planting will also be carried out within the highway verge along the site boundary to the A1017, subject to agreement with the highway authority.



Section A

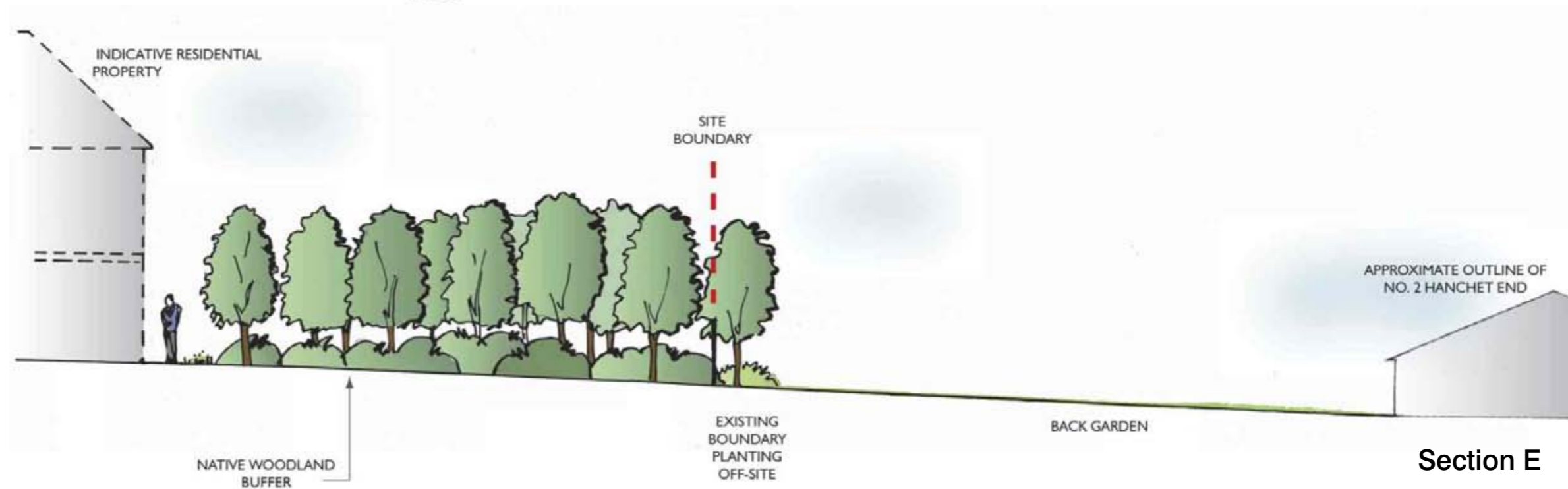
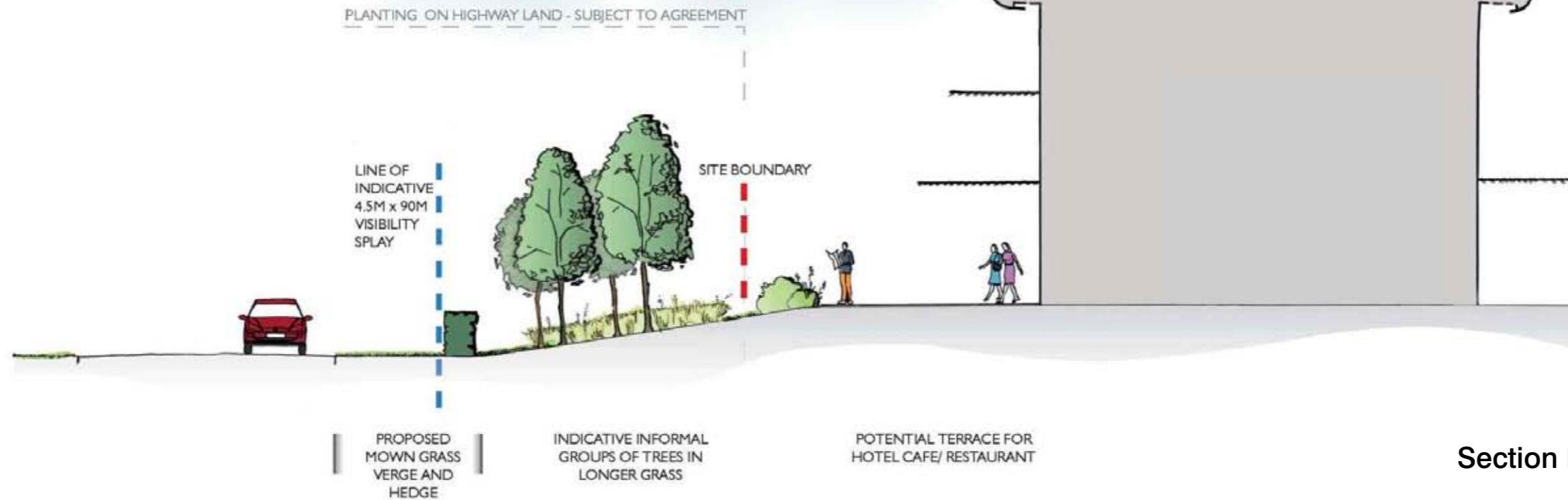


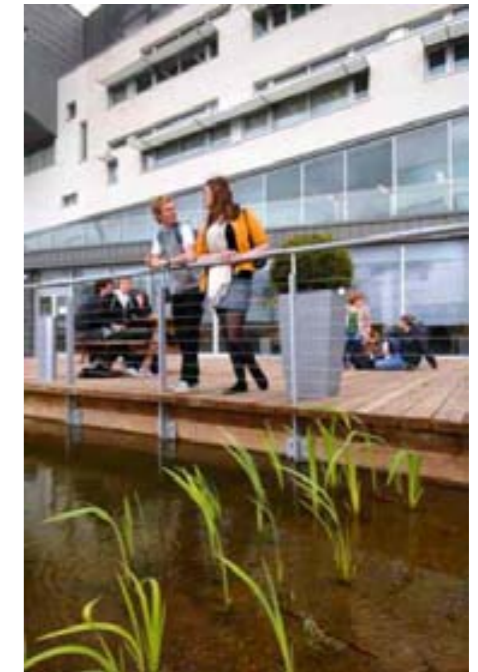
Section B



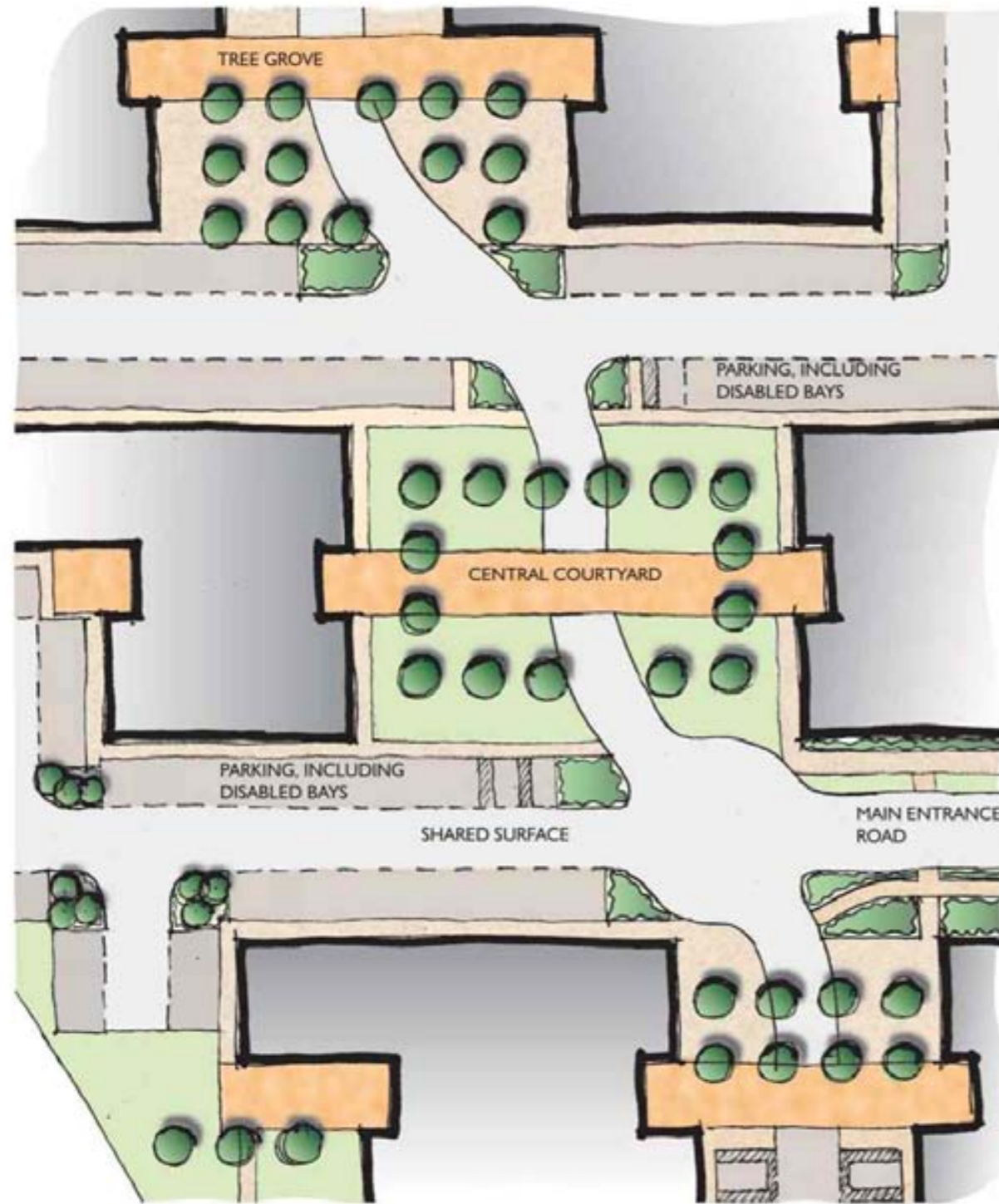
Section C

3.6.8 Planting will also be carried out within three main areas of the research park and commercial area, to further enhance the woodland planting areas, namely: marginal planting around the attenuation pond, to provide additional natural habitats; around and between individual buildings; and within parking areas to reduce the visual impact of parked cars.





Concept Water Feature Design



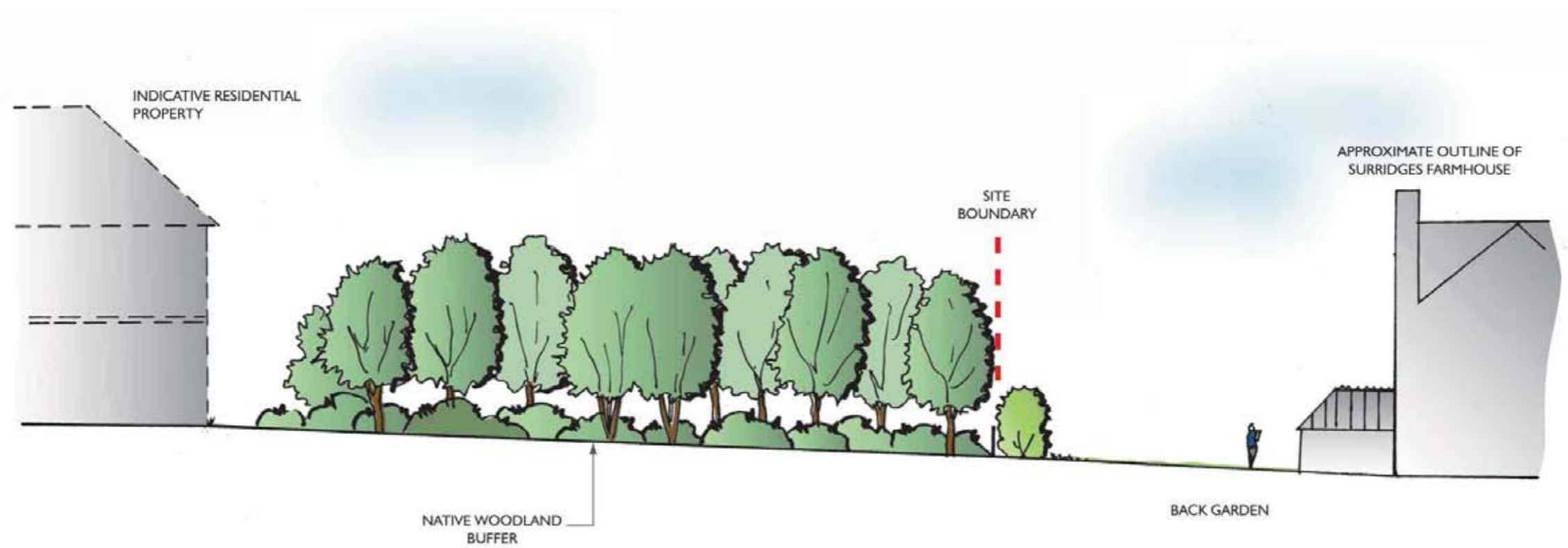
Concept Entrance Plaza Design

3.6.9 Planting within the residential area will primarily be carried out along roads and footpath/cycleways; around any areas of public open space; along the boundary of the site to the rear gardens of properties in Hanchett End; and within gardens and areas of private amenity space.





Section F



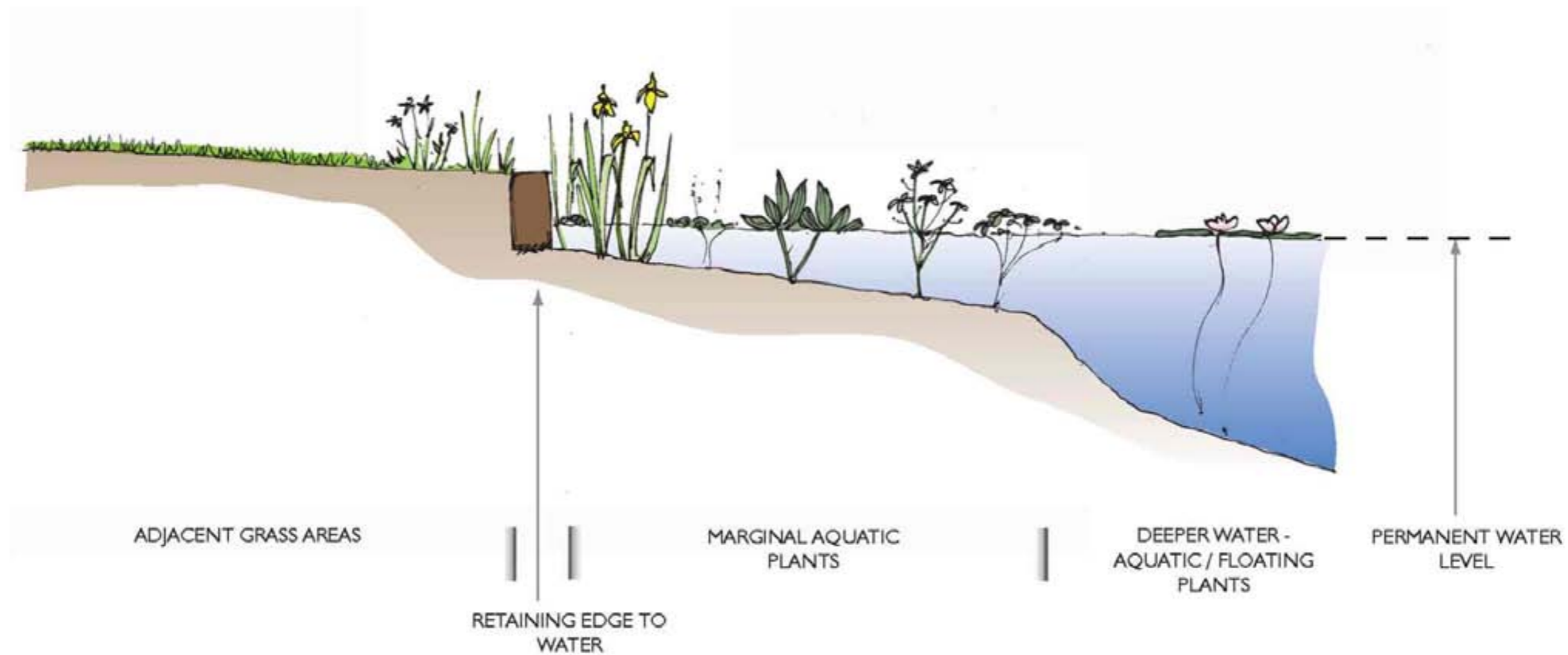
Section G

3.6.10 Planting species in the woodland areas will consist primarily of broadleaf native and locally indigenous canopy trees with under-storey shrubs, including a percentage of evergreens, such as holly and yew. These areas will be planted with bare-root transplanted material (generally 2 year old 1 + 1 stock) supplemented with a high percentage of feathered trees, between 1.5 and 3 metres in height to give instant impact.

3.6.11 Hedgerows will consist of locally indigenous species and will be planted with larger transplants (generally 3 year old 1 + 2 stock) with rabbit fence protection during establishment.

3.6.12 Ornamental species will be limited to occasional specimen trees and shrubs around the buildings within the site.

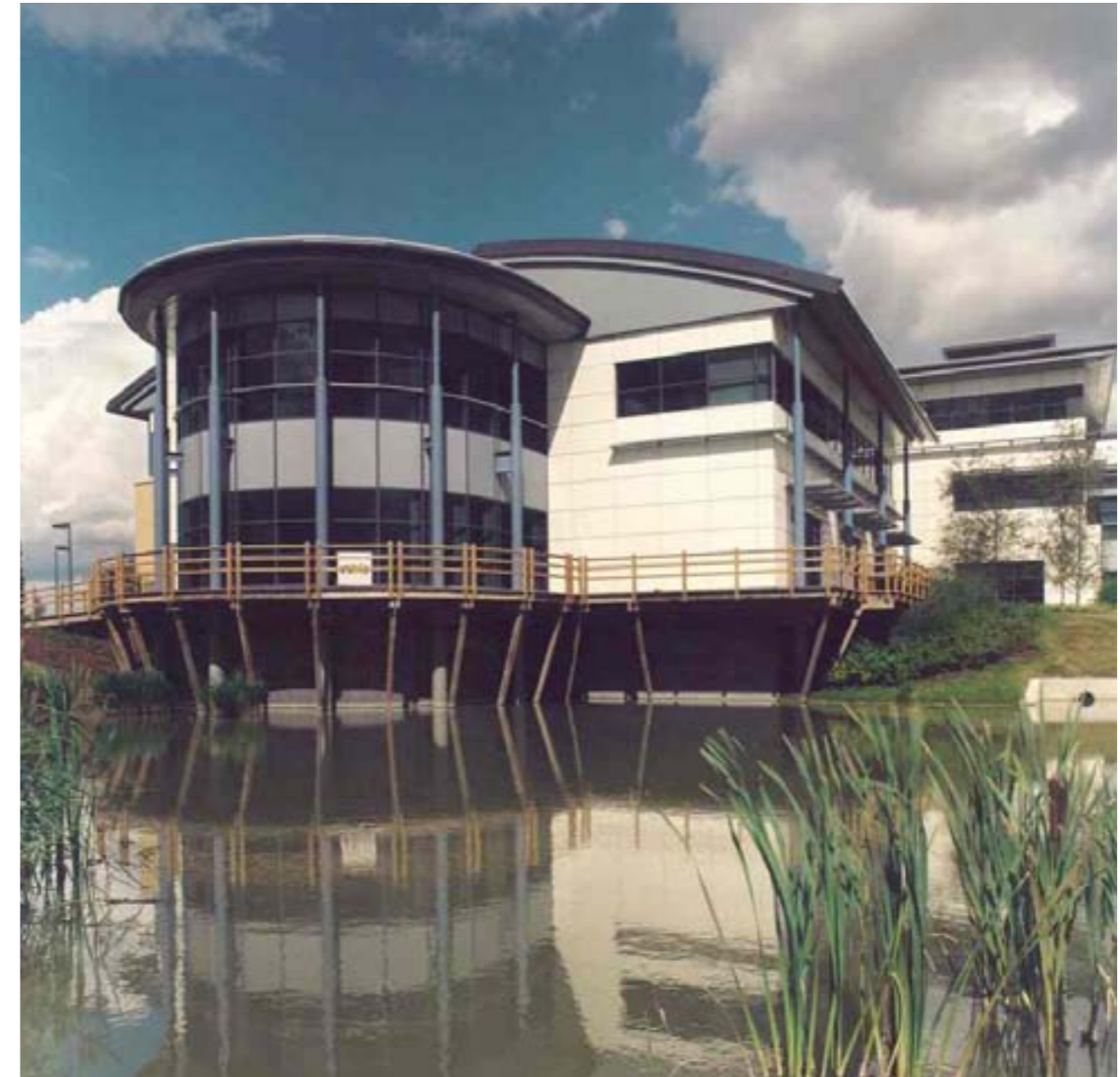
3.6.13 All plants selected will be able to thrive in the soil and climatic conditions found on the site.

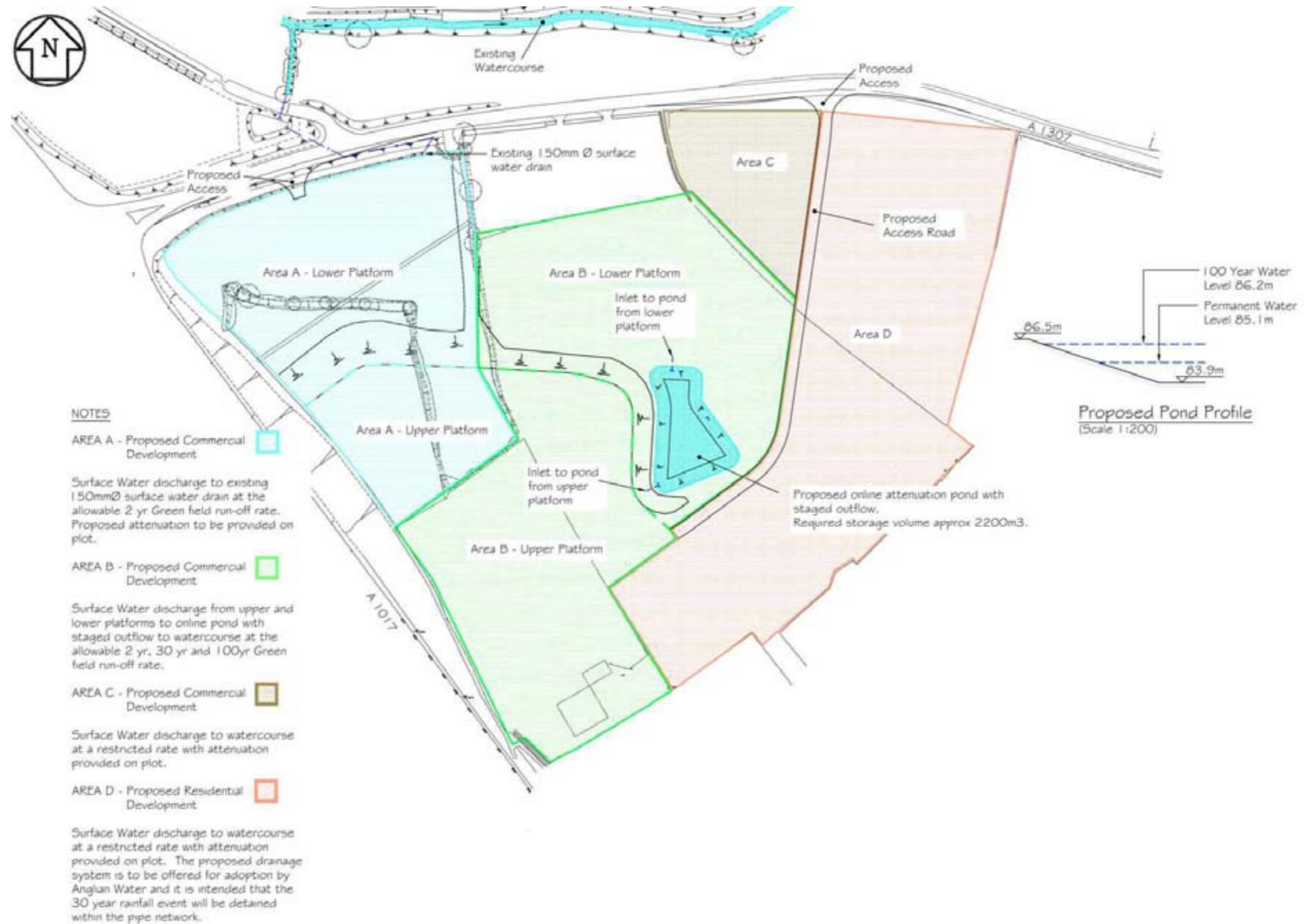


Typical Pond Edge Detail

3.7 Drainage Solutions

- 3.7.1 Foul drainage from the new development will discharge to an existing off-site adopted sewer.
- 3.7.2 Initial soil investigations show that the site comprises heavy clay soils with low permeability. No allowance has therefore been made for natural drainage via sub-soil infiltration. A comprehensive Drainage Strategy will be submitted as part of the supporting documentation for the outline planning application(s). The drainage strategy will use the re-modelled topography of the site to move surface water to the existing surface water drainage system (adjacent to the A1307), via a series of sustainable solutions that will significantly reduce the rate of run-off during peak rainfall. Details of these solutions will be developed and incorporated into the drainage strategy as part of the ongoing design process. The large attenuation pond within the major public open space in the centre of the site is an example of this type of feature, which will contribute to the creation of a more natural pattern of drainage.
- 3.7.3 Surface water run-off will be dealt with on site via a range of methods, including a variety of sustainable solutions such as the attenuation pond, swales and 'lodes'. These measures will be designed in detail by the project engineer, in conjunction with the landscape architect, and will include below ground attenuation systems as well as above ground features such as wetland areas. These are permanent water bodies, which are intended to remain wet at all times and will be established with native wetland and marginal vegetation. The permanent pond in the centre of the research park will provide a focal point to this major area of public open space, and will be contoured and planted to create a significant area of visual and ecological value. The lake will also act as an attenuation facility, with temporary storage provided above the permanent retained water level.
- 3.7.4 Swales and 'lodes' will also be included as part of the drainage strategy. Swales are linear vegetated drainage features that convey and store surface water; 'lodes' are essentially narrow, elongated attenuation ponds and are common in East Anglia. Roadside swales replace conventional gullies and drainage pipes, and are incorporated into landscape features to create ecological and aesthetic value. They are generally dry, apart from at their base and during storm events, but can be planted with native marginal wetland vegetation to enhance their ecological and landscape value. 'Lodes' would be capable of storing significant volumes of surface water from the lower development platforms and would be sited along the site frontage to the A1307. They have the potential to provide an attractive, sustainable landscape feature to this prominent site boundary.





Surface Water Drainage Strategy

Haverhill Research Park - *Masterplan*



Sustainability



4 Sustainability

4.1 Introduction

4.1.1 The concept of sustainable development has led the agenda for planning policy for over ten years. The government's Planning Policy Statement No.1 (PPS1), "Delivering Sustainable Development" (2005) sets the overall context. In developing the Masterplan for this site, the Design Team has aimed to embed sustainability principles into every element of the design to create an ecologically sound development that will also be an attractive place in which to work and live.

4.1.2 The Council's Concept Statement states that the Masterplan should seek to minimise the environmental impacts from the development of the site. While no specific targets are set, the statement requires the incorporation of strategies to ensure that the development is as sustainable as possible.

4.2 Sustainability Issues

4.2.1 The following table deals with the opportunities for achieving sustainable development and demonstrates how the Masterplan has addressed the issues identified in the Concept Statement.

TOPIC	ISSUE	RESPONSE
Energy	Passive solar gain	The draft layout of buildings within the site has sought to maximise solar gain, particularly within the residential area, so that the majority of blocks are orientated within 30 degrees of south, wherever possible
	Insulation	This will be considered in more detail as part of the architectural design process
	Energy efficiency	This will be considered in more detail as part of the architectural design process
	Lighting	External lighting will be to the minimum standard to ensure public safety and highway lighting will be designed to the Highway Authority's standard.
	Renewable energy	A renewable energy statement will be submitted with the outline planning application. It is expected that the detailed design of buildings will include features to create energy on site, through the use of solar panels, wind turbines and photo-voltaic cells, for example.
	Code for Sustainable Homes	The mandatory Code Levels in force at the time of construction will be achieved.
Transport	Tree planting	The overall landscape strategy will include large areas of tree planting that will help to ameliorate winds, which is a factor in heat-loss from buildings.
	Minimise car movement and encourage the use of public transport and cycling	The site is situated close to local facilities, including shops and schools, and also to public transport, which will help minimise reliance on the car. New pedestrian and cycle links will be created from the site to further enhance the proximity of these services. A Green Travel Plan will be submitted as part of the Environmental Statement to be submitted at the Outline Planning Application stage.
	Inclusive access	The design and layout of buildings on the site will integrate the principles of inclusive design as set out in best practice guidance. Further information will be provided in the supporting documents that will accompany the outline planning application.
	Car parking provision	The Masterplan will accord with the Parking Standards Guidance as set out in the adopted Local Plan, Core Strategy and any other relevant Supplementary Planning Document. The Masterplan will seek to achieve between 1 to 2 parking spaces per dwelling in the residential area, depending on the size of dwelling. Opportunities for the shared use of the business park parking areas nearest the residential area will also be investigated.
	Car clubs and car sharing schemes	Car clubs and car sharing schemes will be explored as part of the Green Travel Plan to be submitted at the outline application stage.

Water	Minimise water consumption and flood risk	Low water demand technologies will be incorporated into the detailed design of buildings, such as grey water recycling. Sustainable drainage systems will also be integrated into the layout, along with structural landscaping. The site lies outside the flood risk area and the use of these systems will ensure that the risk of flooding is not increased elsewhere in the town.
	Replenish ground water reserve	If ground conditions are suitable, ground water within the residential area will be allowed to percolate. Infiltration tests will be undertaken to prove whether this is feasible, given that the site comprises heavy clay soils.
	Water conservation	This will be covered by the Code for Sustainable Homes, however, it is the intention (within the residential area) to use some form of rainwater harvesting.
Environmental impact	Ecology and biodiversity	This is dealt with in more detail in the next chapter, however, a stated aim will be to enhance the overall biodiversity of the site.
	Townscape character	The emerging design and layout is being led by the need to provide a development of high architectural quality that will respond positively to its location and surroundings.
	Noise	Activities and equipment associated with the commercial development, including transport, will be strictly controlled to ensure that noise levels are kept within acceptable limits.
	Light pollution	Lanterns which minimise light spill and light pollution will be used.
Waste and Recycling	Waste and recycling	These issues will be closely examined when the detailed design and layout of buildings is considered, prior to the submission of the outline planning application.

4.3 Design Implications

- 4.3.1 One of the most easily achieved and effective sustainability “gains” can be partly accomplished through the orientation of buildings (especially dwellings), to maximise passive solar gain. It has been demonstrated that the most effective orientation is within 30 degrees of due south.
- 4.3.2 Buildings orientated so that they face south-eastwards will benefit from morning sun, while those orientated south-westwards will catch afternoon sun, delaying the evening heating period.
- 4.3.3 In the context of the commercial and research park buildings however, such orientation can lead to issues of over-heating and the need for air-conditioning, which is expensive and unsustainable. Alternative measures such as passive stack ventilation systems and external shading therefore need to be considered.
- 4.3.4 The architectural design of the commercial and research park buildings will therefore seek to be responsive to the unique energy needs of each individual building, maximising the benefits of working in symbiosis with the environment.



Haverhill Research Park - *Masterplan*



Ecology and Biodiversity



5 Ecology and Biodiversity

5.1 Introduction

- 5.1.1 This section includes a summary of the Ecological Survey and Phase 1 Habitat Survey that has been carried out for the site (report dated 5th May 2010), and the Reptile Report (dated 1st November 2010) based on surveys undertaken in September 2010.
- 5.1.2 Also included within this section are suggestions for a series of mitigation measures that could be incorporated into the detailed proposals to enhance the ecological value and biodiversity of the site.

5.2 Summary of the Findings

- 5.2.1 According to the Ecological Survey and Phase 1 Habitat Survey conducted by the Martin Newcombe Wildlife Management Consultancy in April 2010, the main findings are as follows:
 - Total number of species recorded at the site is small and the site has relatively low ecological value;
 - Plant list was typical for a site that has been agriculturally managed in the past and consisted of species that are characteristic of the grassland habitat present;
 - Hedgerows were not sufficiently valuable to satisfy the criteria for the Hedgerow Regulations, as they lacked variety;
 - Bird list was richer than expected for a relatively open site and several species were recorded including: skylark, linnet and starling;
 - Presence of pipistrelle bat is not significant, since the site is unlikely to provide any significant amount of the animal's roosting needs (no significant trees and derelict buildings unsuitable for use by bats); and,
 - Presence of a range of other protected species were considered, but none were found. Hedgerows were poorly connected to suitable habitat for dormouse, and there are no ponds within the site that might be suitable for great crested newt or water vole.
- 5.2.2 In addition, the reptile survey, which was carried out over most of September 2010, found no animals of any species. While the ecological report recorded that evidence of slow-worm was observed and that two common lizards were observed on the southern perimeter of the site (within 3m of the boundary with Hanchett End), this gave rise to the opinion given in the report that reptiles would be present. Slow-worm and common lizard were expected to be found, but neither was present.
- 5.2.3 The results of the reptile survey suggest that the population is actually very low, and that any animals that do exist, largely live in the rear gardens of houses backing onto the site. Accordingly, the risk of reptiles being present on the site is now known to be small.

5.3 Recommendations

- 5.3.1 As a precaution, the Reptile Report recommends that, even though a small proportion of reptiles is present, the affected area should be reptile-fenced and subject to trapping and translocation to a suitable receptor site prior to the commencement of the development.
- 5.3.2 Potentially the population may be too small to catch in this way, but the Reptile Report recommends that this work is carried out in order to ensure that any affected animals have been removed.
- 5.3.3 The proposed woodland planting between the development platforms will provide natural green buffer areas within the site that will also act as ecological corridors for wildlife. In addition, the proposed use of swales as part of the drainage strategy, as well as the provision of the large attenuation pond, will also further diversify the range of potential wildlife habitats across the site.
- 5.3.4 Other simple measures could also be introduced to increase the ecological value and maximise the biodiversity interest of the site. These include:
 - Bird boxes;
 - Woodpiles;
 - Bat boxes.



Haverhill Research Park - *Masterplan*



Archaeology



6 Archaeology

- 6.1 A desk-based assessment and site visit was undertaken by Archaeological Project Services (APS) during December 2010 to determine the archaeological implications of the proposed development of the site at Hanchett End, Haverhill.
- 6.2 On the available evidence, the report concluded that there is some potential for remains of prehistoric, specifically Iron Age, date to be present at the site. In addition to discoveries of Iron Age activity in the assessment area, including just a short distance to the south of the proposed development site, further artefacts and remains of the period have been found in the wider area, including a number of coins from Haverhill.
- 6.3 There is also potential for Roman remains in the area. A significant Roman road passes a short distance to the north of the site and a substantial cemetery of the period was identified at the eastern limit of the assessment area. A population resident in the vicinity is implied by the cemetery, though under Roman law burials grounds were normally excluded from occupation areas. As a result, cemeteries are often found alongside roads on the outskirts of Roman towns. Scatters of artefacts from several locations within the assessment area may relate to small occupation areas such as farms.
- 6.4 There is a dearth of Saxon remains from the general area, which would tend to suggest there was very limited potential for Saxon activity at the site. Both Withersfield and Haverhill are recorded as being in existence prior to the Norman Conquest and it is likely that Later Saxon settlement was focused in their historic cores, which are some distance beyond the assessment area.
- 6.5 However, the Domesday Book of 1086 also records that Hanchett was in existence in the Late Saxon period. It is likely that Hanchett End is the location of the Hanchett manor recorded in the medieval period and later. The suffix 'End' often refers to a detached occupation area or hamlet subsidiary to a larger settlement, or separate elements of a polyfocal group of habitation areas. The minor place-name 'Hanchett End Green', located by the southern corner of the site, may refer to a village green and possible market site. Within the site, the field-name 'Chapel Field' probably indicates this parcel of land formed part of the endowment of a chapel but could possibly indicate the former presence of a chapel on or near to the area. It would seem likely, however, that the Hanchett settlement was immediately alongside Hanchett End Road, just to the south of the site, in the area occupied by modern houses.
- 6.6 It is not clear when Hanchett was depopulated but the two 17th century Listed Buildings in the area, Hanchett End Farmhouse and Hanchett End Cottage, may be the last remnants of the settlement.

- 6.7 Cartographic evidence indicates that the site and surrounding area has mostly been open ground with an agricultural function since the late 18th century. This persisted until the late 20th century when development began to encroach on the area.
- 6.8 No artefactual remains were observed during the walkover survey of the site, and current land usage is not appropriate for this method of archaeological survey. Geophysical survey and trial trenching are considered to be appropriate methods of investigation for parts of the development area.

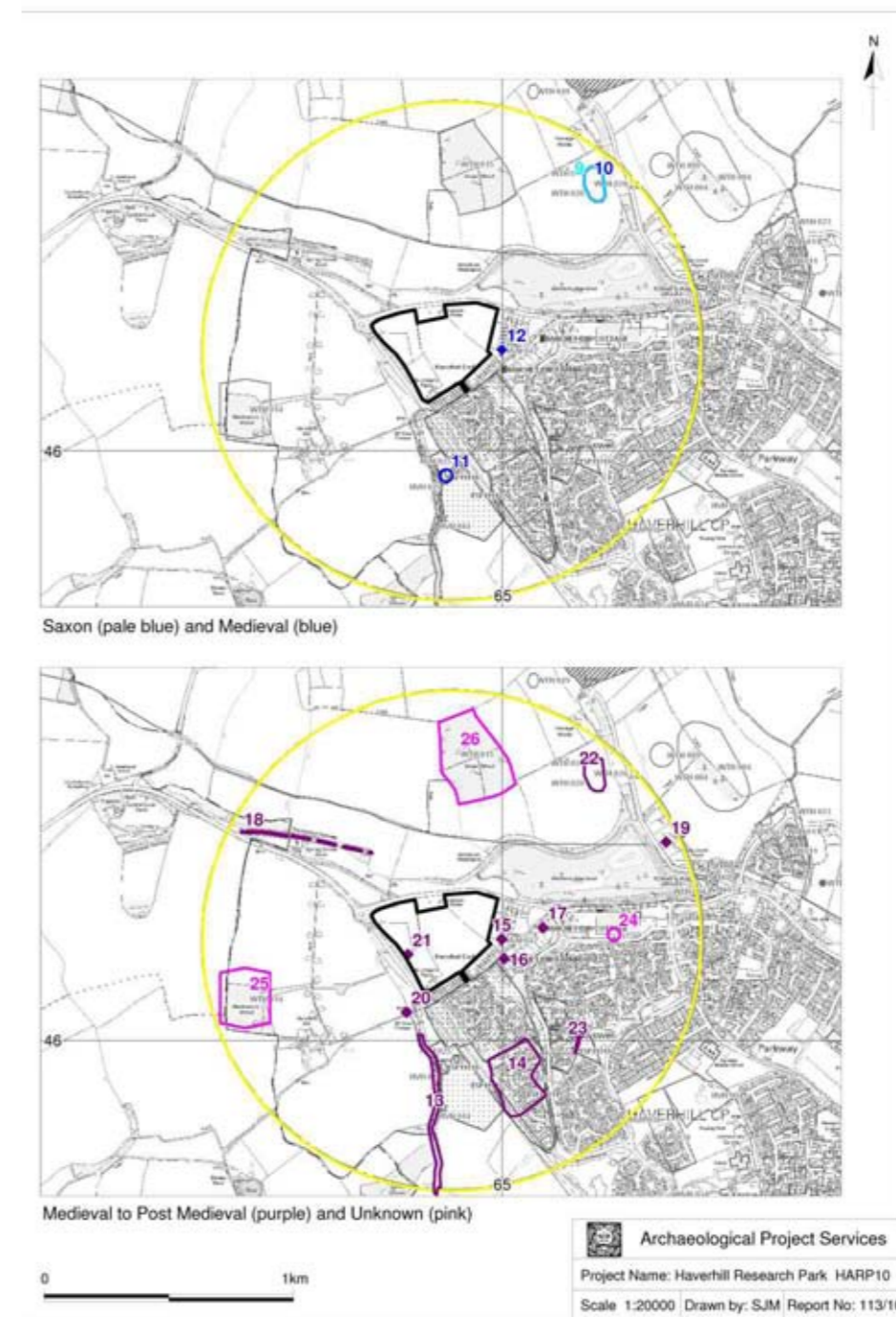


Figure 10 Saxon, Medieval, Post-medieval and Undated remains

Map Code	County HER No.	Description	Grid. Ref.
Saxon finds and sites			
9	SHER WTH020	Buckle	TL 6535 4707
Medieval finds and sites			
10	SHER WTH020	Metal items including strap end, pendant, buckle, spur and token, and 4 long cross pennies, one of Edward I (1272-1307)	TL 6535 4707
11	SHER HVH023	Settlement remains, including ditches, pits and postholes, associated with medieval pottery	TL 6477 4590
12	SHER HVH042	Metal items, including strap fitting, buckle, purse and coins, one a gold noble and a long cross halfpenny of Richard II (1377-99) and a worn long cross penny	TL 6505 4645
Medieval to Post-medieval finds and sites			
13	SHER HVH044	Parish boundary, deep narrow valley, perhaps partly artificial, with slight bank on E side	TL 6474 4542 – TL 6467 4602
14	SHER HVH057	Documentary evidence for ancient woodland; further evidence for this and post-medieval field boundaries identified by trial trenching	TL 6506 4584
15	SHER HVH042	Post-medieval coins	TL 6505 4645
16		Hanchett End Farmhouse, 17 th century	TL 6501 4632
17		Hanchett End Cottage, 17 th century	TL 6516 4644
18	CHER 06326	Remains of Cambridge-Haverhill railway, opened 1865, closed 1967	TL 6394 4683 – TL 6448 4675
19	-	Brickworks, first shown on OS map	TL 6566 4679
20	-	Hanchett End Green, shown on 1857 map	TL 6462 4611
21	-	Chapel Field, field-name on 1840 tithe map	TL 6462 4634
22	SHER WTH020	Post-medieval coin, buckle and spur	TL 6535 4707
23	SHER HVH060	Ditches, probably post-medieval field boundaries	TL 6531 4599

Map Code	County HER No.	Description	Grid. Ref.
Undated finds and sites			
24	SHER HVH017	Cropmarks of natural features	TL 6545 4642
25	SHER WTH014	Markhams Wood, ancient woodland	TL 6405 4615
26	SHER WTH015	Howe Wood, ancient woodland	TL 6495 4715

Abbreviations

CHER Cambridgeshire Historic Environment Record
 SHER Suffolk Historic Environment Record

Haverhill Research Park - *Masterplan*



Phasing and Implementation



7 Phasing and Implementation

7.1 Timetable for Preparation and Submission of Outline Planning Application.

- Presentation of draft Masterplan to Haverhill Area Working Party 13/1/11
- Agreement of draft Masterplan for public consultation 17/1/11
- Public exhibition on draft Masterplan 27 January 2011
- Final revisions to Masterplan February 2011
- Report on Masterplan to Sustainable Development Working Party 07/03/11
- Report on Masterplan to Cabinet 16/03/11
- Agreement of Full Council to Masterplan 05/04/11
- Scoping request to Council for EIA April 2011
- Preparation of outline planning application and supporting documents Spring/Summer 2011
- Submission of outline planning application Summer/Autumn 2011
- Approval of outline planning application Winter 2011
- Approval of reserved matters Spring 2012

7.2 Phasing



Appendices

B- Glossary

This glossary is intended to provide general guidance, not authoritative definitions of terms which are sometimes controversial or used with different meanings in different contexts.

Accessibility The ability of people to move round an area and to reach places and facilities, including elderly and disabled people, those with young children and those encumbered with luggage or shopping

Adaptability The capacity of a building or space to be changed so as to respond to changing social, technological and economic conditions

Brief This guide refers to site-specific briefs as development briefs. Site-specific briefs are also called a variety of other names, including design briefs, planning briefs and development frameworks

Buffer Zone An area of landscaped open space that provides separation, screening and ecological value between different parts of a development or to the edge of a development where it adjoins open countryside.

Character Assessment An area appraisal identifying distinguishing physical features and emphasising historical and cultural associations

Context The setting and surroundings of a site or area, including factors such as traffic, activities and land uses as well as landscape and built form

Defensible Space Public and semi-public space that is 'defensible' in the sense that it is surveyed, demarcated or maintained by somebody. Derived from Oscar Newman's 1973 study of the same name, and an important concept in securing public safety in urban areas, defensible space is also dependent upon the existence of escape routes and the level of anonymity which can be anticipated by the users of the space.

Density The floorspace of a building or buildings or some other unit measure in relation to a given area of land. Built density can be expressed in terms of plot ratio (for commercial development); number of units or habitable rooms per hectare (for residential development); site coverage plus the number of floors or a maximum building height; or a combination of these.

Design Principle An expression of one of the basic design ideas at the heart of an urban design framework, design guide, development brief or a development.

Desire Line An imaginary line linking facilities or places that people would find easy and convenient to travel between.

Elevation The façade of a building, or the drawing of a façade

Enclosure The use of buildings to create a sense of defined space

Energy efficiency The extent to which the use of energy is reduced through the way in which buildings are designed, constructed and arranged on site

Feasibility The viability of development in the context of current economic and market conditions, such as demand, land values, rents, yields etc.

Form The layout (structure and urban grain), density, scale (height and massing) appearance (materials and details) and landscape of development

Height The height of a building can be expressed in terms of a maximum number of floors; a maximum height of parapet or ridge; a maximum overall height; any of these maximum heights in combination with a maximum number of floors; a ratio of building height to street or space width; height relative to particular landmarks or background buildings; or strategic views

Human Scale The use within a development of elements which relate well in size to an individual human being, and the assembly of those elements in a way which makes people feel comfortable rather than overwhelmed

Landmark A building or structure that stands out from adjoining or surrounding buildings and its background by virtue of height, scale, size, elevational feature or some other aspect of design

Landscape The character and appearance of land, including its shape, form, ecology, natural features, colours and elements and the way these components combine. Landscape character can be expressed through landscape appraisal, and maps or plans. In towns 'townscape' describes a similar concept

Legibility The degree to which the physical layout of a place can be easily understood and navigated

Mixed Uses A mix of uses within a building, on a site or within a particular area. 'Horizontal' mixed uses are side by side, usually in different buildings. 'Vertical' mixed uses are on different floors of the same building. A site containing mixed uses has advantages relating to how people use spaces and buildings over a 24 hour period.

Movement People and vehicles moving to and between buildings, places and spaces. The movement network can be shown on plans, by space syntax analysis, by highway designations, by figure and ground diagrams, through data on origins and destinations or pedestrian flows, by desire lines, by details of public transport services, by walk bands or by details of cycle routes

Node A place where activity and routes are concentrated; often used as a synonym for junction

Permeability The degree to which an area has a variety of pleasant, convenient and safe routes through it

Planning Policy Statements (PPSs) Documents embodying Government guidance on general and specific aspects of planning policy to be taken into account in formulating development plan policies and in making planning decisions

Plot Ratio A measurement of density generally expressed as gross floor area divided by the net site area

Public Art Permanent or temporary physical works of art visible to the general public, whether part of the building or free-standing; can include sculpture, lighting effects, street furniture, paving, railings and signs

Public Domain The parts of a village, town or city (whether publicly or privately owned) that are available, without charge, for everyone to use or see, including streets, squares and parks. Also called public realm

Public Realm See 'public domain'

Scale The impression of a building when seen in relation to its surroundings, or the size of parts of a building or its details, particularly as experienced in relation to the size of a person. Sometimes it is the total dimensions of a building which give it its sense of scale; at other times it is the size of the elements and the way they are combined. The concept is a difficult and ambiguous one; often the word is used simply as a synonym for 'size'.

Section drawing showing a "slice" through a building or site to indicate its internal structure or topography

Sustainable Development Defined by the Brundtland Commission (1987, and quoted in PPG1) as 'Development which meets present needs without compromising the ability of future generations to achieve their own needs and aspirations'. The UK's strategy for sustainable development "A better quality of life" was published in May 1999 and highlights the need for environmental improvement, social justice and economic success to go hand-in-hand

Topography A description or representation of artificial or natural features on or of the ground, or simply the shape of a particular terrain

Urban Grain The pattern of the arrangement and size of buildings and their plots in a settlement; and the degree to which an area's pattern of street-blocks and street junctions is respectively small and frequent, or large and infrequent

View What is visible from a particular point

C - References

- Hanchett End Business Park Concept Statement (Sept. 2010)
- The Replacement St Edmundsbury Local Plan 2016
- St. Edmundsbury Adopted Core Strategy DPD
- By Design, Urban Design in the Planning System: Towards better Practice 2000
- The Urban Design Compendium (2000)
- Delivering Quality Spaces : Urban Design Compendium 2, English Partnerships (2007)
- Urban Task Force Report Towards an Urban Renaissance (1999)
- Secured by Design (1994)
- Planning Out Crime: Circular 5/94 (1994)
- Manual for Streets (2007)
- Better Places to Live: By Design
- Shared Space: Room for Everyone, Shared Space
- Car Parking: What Works Where (2006)
- Suffolk Design Guide
- Paving the Way, How We Achieved Clean, Safe and Attractive Streets (2002)
- Streets for All (2005)
- The Suffolk Surface Dressing Manual
- The Councillors Guide to Urban Design (2003)

Haverhill Research Park

Supported by



Carisbrooke Investments
22 Grosvenor Square
London
W1k 6DT

Tel: 0207 4936774
Fax: 0207 4932454



Frank Shaw Associates Ltd
Penmore House
Hasland
Chesterfield
S41 0SJ

Tel: 01246 233 255
Fax: 01246 220 009

www.frankshawassociates.co.uk

Architect



Cheffins Planning & Development
Clifton House
1 & 2 Clifton Road
Cambridge
CB1 7EA

Tel: 01223 271985
Fax: 01223 271960

www.cheffins.co.uk

Planning & Development



Hannah Reed
Talford House
Fulbourn
Cambridge
Cb21 5HB

Tel: 01223 882000
Fax: 01223 881888

www.hannahreed.co.uk

Civil & Structural Engineer



Wyndam House
65 The Close
Salisbury
Wiltshire
SP1 2EN

Tel: 01722 340140
Fax: 01722 334113

www.indigolandscapes.co.uk

Landscape Architect

