University of Kent Canterbury

Innovation Park

SUPPLEMENTARY **PLANNING GUIDANCE**

CANTERBURY
DISTRICT
LOCAL PLAN

CANTERBURY
CITY COUNCIL

September
2004

Contents

The Brief draws upon the findings of the following studies previously undertaken on behalf of the City Council, the University and SEEDA -

Landscape Appraisal by Lloyd Bore Landscape Architects, dated January 2003

District Economic Strategy and Local Plan Review Knowledge-based Economy Research, by Angle Technology Ltd, dated January 2002

Alternative sites report by Terence O'Rourke, dated March 2004

Terence O'Rourke
creating successful environments

whitbybird

WSP

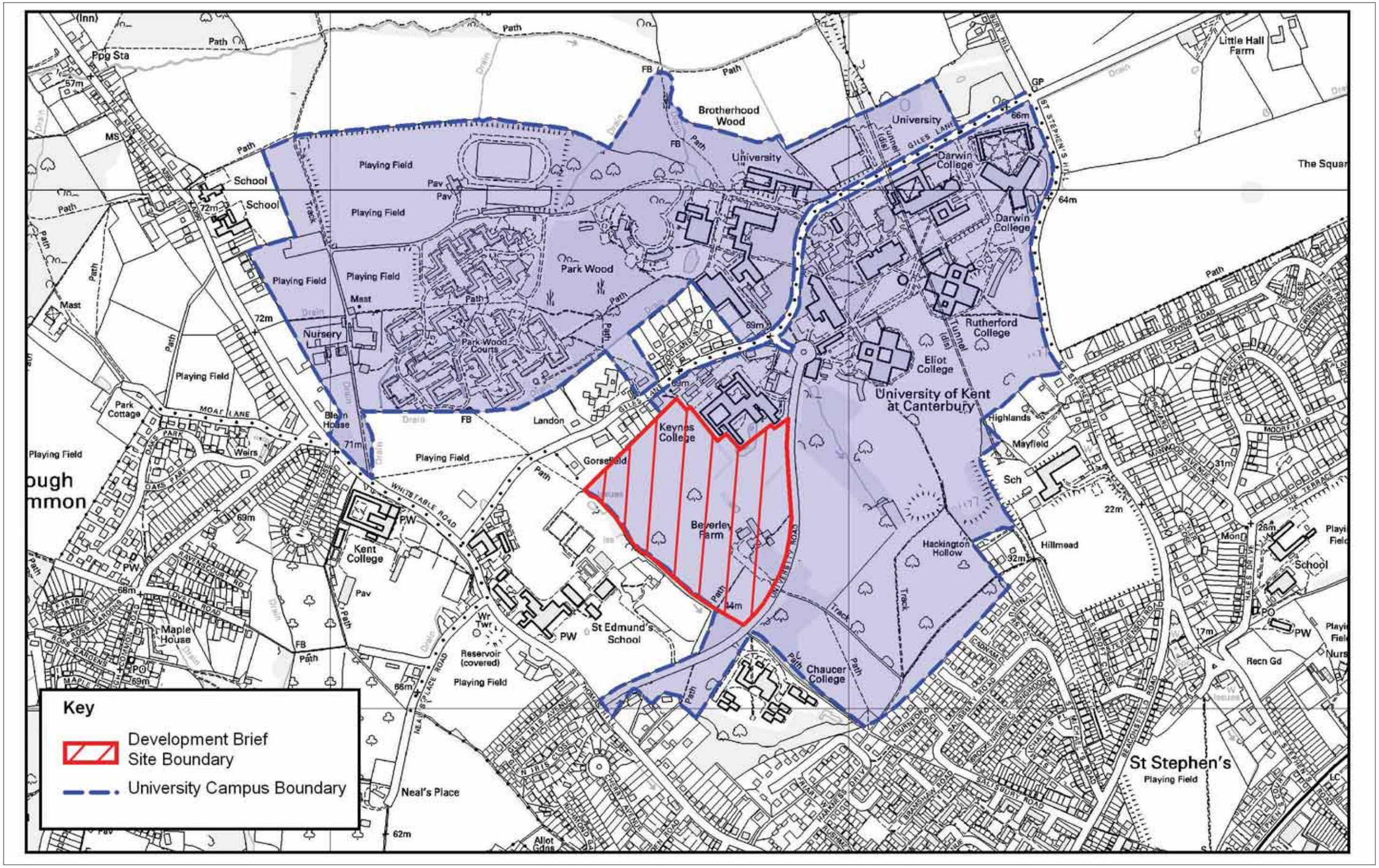


Figure 1 Extent of University Campus

Chapter 1: Introduction

Background

1.1 The University of Kent was established at Canterbury in the 1960's as one of seven new university foundations, on a large 121 hectare site to the north-west of the city.

1.2 Beverley Farmhouse initially acted as the centre of the new establishment in 1964. The construction of the first colleges (Eliot College and the Physics Building) began at this time and the first building was completed in 1965, the year in which the University of Kent received its Royal Charter.

1.3 Numerous other academic buildings and student facilities were developed during the 1960's and 1970's and since then the University has continued to expand with the addition of new buildings, specialist study units, observatory, nursery, estates office, business school, studios, sports facilities, student accommodation, shops, banks, student union centre, bookshops and other essential student facilities. The extent of the current University campus is shown on Figure 1.

1.4 Canterbury enjoys the distinction of being the home of three higher education institutions, the University of Kent, Kent Institute of Art and Design and Canterbury Christ Church University College, all of which have well-established links to the sub-region's further education colleges. Given this significant local educational resource, Angle Technology Limited, in association with Terence O'Rourke Ltd, were commissioned by Canterbury City Council to explore the possible expansion of the area's knowledge-based economy. A report was published in January 2002, in association with the City Council, the South East of England Development Agency (SEEDA), the University of Kent and Kent County Council, to inform the Canterbury District Economic Strategy and Local Plan review. The key objectives of the research were

i) To quantify and assess the potential for developing and expanding knowledge-based business in Canterbury and the District.

ii) To investigate the physical development required to facilitate this expansion.

iii) To advise on location and related planning issues.

1.5 The results of the demand analysis indicated that on a ten-year view there is potential demand in Canterbury for about 19,000 sqm of accommodation for knowledge-based businesses. Just under half of the potential demand is directly dependent on having a site in close proximity to, and preferably part of, the University of Kent campus. The analysis predicts that a significant proportion of the demand will arise from the successful incubation of knowledge-based start-up businesses, and is therefore 'home grown'. Incubation capacity is therefore very important for the success of this initiative. The creation of an effective, well-managed incubator was considered to be an early priority, as the first part of any knowledge-based business initiative in Canterbury.

1.6 The report also assessed potential development locations in Canterbury and analysed the suitability of each identified site, as a potential location for a new, high-quality employment development associated with knowledge-based sectors, against a set of defined site selection criteria. The Beverley Farm site, located on the University of Kent campus, was the only site identified that could meet, or partially meet, all of the assessment criteria. It was therefore identified as the best possible site for a new 'knowledge/research park' development.

1.7 Although the adopted Canterbury Local Plan (1998) pre-dates the Angle Technology Ltd report, it does recognise the importance of the education sector and the employment opportunities that it generates. It also notes that several establishments in the higher education sector are considering expansion.

1.8 The First Deposit Draft Canterbury Local Plan (2002) fully recognises the need to exploit and expand the local knowledge - based economy and the new business opportunities that could be developed, as highlighted in the Angle Technology report. The First Deposit Local Plan introduces a policy (Policy ED7), which safeguards the Beverley Farm site for a Business Innovation Centre development, subject to the preparation of a Development Brief. The Local Plan confirms that the City Council is firmly committed to this initiative and considers this to be a priority for the Council's economic strategy. This policy and the Council's continued support for the Innovation Centre is carried forward in the Revised Deposit Draft Local Plan (2003). At the time of writing this document it is understood that the Council has not received any significant objections in principle to the development of a new Business Innovation Centre at the University of Kent on Beverley Farm, and that there are no proposed changes to the Revised Deposit Local Plan Policy ED7 prior to the Local Plan enquiry.

1.9 In July 2003 the University of Kent issued a press release announcing that SEEDA had approved a grant of £250,000 to the University following a bid in partnership with Canterbury City Council to establish the Canterbury Enterprise Hub. This will include a business support network, hatchery and incubator space for new businesses in the area. The focus of this will be on innovative companies working in health, information and communication technologies. It is anticipated that the establishment of the Enterprise Hub will be the catalyst for the wider initiatives outlined above. At the time of writing, SEEDA had appointed a Hub Director for the Canterbury Enterprise Hub.

Purpose and format of the brief and procedure

1.10 This Development Brief has been prepared by Terence O'Rourke Ltd for the University of Kent to guide the future development of a new Business Innovation Park to be located at Beverley Farm, and to comply with the requirements of draft Policy ED7, as set out in the Revised Deposit Draft Canterbury Local Plan (2003). Throughout the document we refer to the 'Innovation Park' as opposed to the 'Innovation Centre'. The two have the same boundary, however in discussion with the University, the City Council and SEEDA it was agreed that Innovation Park was a more appropriate description of the proposed development. The Innovation Park will include SEEDA's enterprise hub and the associated Innovation Centre buildings as well as providing buildings for graduates from the Innovation Centre and inward investors wishing to establish at the Innovation Park.

1.11 A draft development brief was prepared for consultation by the University of Kent and approved for consultation subject to minor amendments by members of Canterbury City Council on 7th May 2004. Public consultation was undertaken between 18th June and 30th July 2004 and this included a public exhibition held in the Foyer of Keynes College on the University campus. The results of the public consultation exercise and proposed revisions to the brief made in response to public comments were reported to the Council's Development Control Committee on 17th August 2004. The Development Control Committee recommended the proposed changes to the document be approved, and subject to some further issues raised by members of the public at this meeting being addressed, recommended the development brief to the Executive Committee for approval. The development brief was approved by the Executive of the Council on 2nd September and this was ratified at a meeting of the Full Council on 16th September 2004. The development brief is therefore now adopted as supplementary planning guidance (SPG).

1.12 The SPG will support the relevant planning policies in the Canterbury Local Plan and provide additional guidance for future developers of the site. It is anticipated that the Brief will become an important material planning consideration and provide Canterbury City Council with a detailed development framework, against which all future planning applications can be assessed and determined.

Guiding objectives

1.13 The overall objectives of the Brief are:

i) To assist in maximising the potential of the site by providing new development in such a way that stimulates the start-up of new innovative companies, and the expansion of the knowledge-based economy, whilst conserving and enhancing the quality of the existing environment.

ii) To promote high standards of layout and design on the site, including the inclusion of innovation and good practice in sustainable construction and resource use.

iii) To promote the integration of the new business innovation park with the existing and evolving University of Kent campus.

iv) To provide additional guidance on the requirements of policy ED7 of the revised Local Plan.

Figure 2 Aerial Photograph

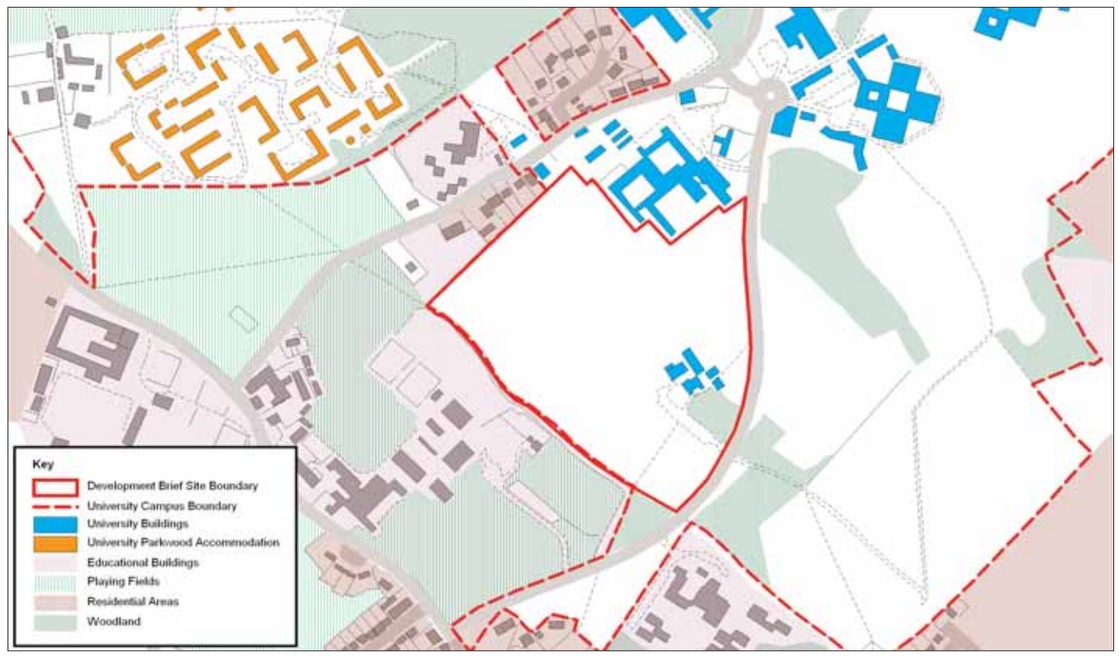


Figure 3 Adjacent Land Uses

Chapter 2: Site Context and Description

Location and size

2.1 The site is located on the north-western edge of Canterbury and forms part of the main University of Kent campus (Figure 1). The site is approximately 1.8 km from the city centre and extends to approximately 6.5 hectares (16 acres) in area. The site occupies land on the south-east facing University slopes on the northern side of the Stour Valley. The full extent of the site is shown on the aerial photograph (Figure 2).

Adjacent land uses

2.2 The majority of the site is undeveloped, the only built development being Beverley Farmhouse and its associated outbuildings and car parking, which together are located on the eastern site boundary. The site is bordered by a mix of land uses to the north, west and south, the majority of which are related to education (Figure 3).

2.3 The south-eastern boundary of the site is defined by University Road, which curves northwards around the Beverley Farm buildings. The boundary with University Road is largely undefined at this point with no fencing or hedgerow. Land beyond the road to the south east of the site is generally characterised by an area of maintained grassland and parkland, which slopes down towards the city. To the south of the site and University Road lies Chaucer College, which is well screened from view by an existing dense belt of vegetation.

2.4 The south-west site boundary is defined by a broad belt of mature trees of mixed species and shrubs that marks the route of a small stream. Beyond this lies St Edmund's School and its playing fields. To the north-east lies Keynes College, the boundary of which is characterised by mature mixed planting, including oak and willow species.

2.5 To the north of the site lies a range of university buildings, together with some private properties, fronting onto Giles Lane. Further away to the north of Giles Lane is the Park Wood Courts area of student residential accommodation.

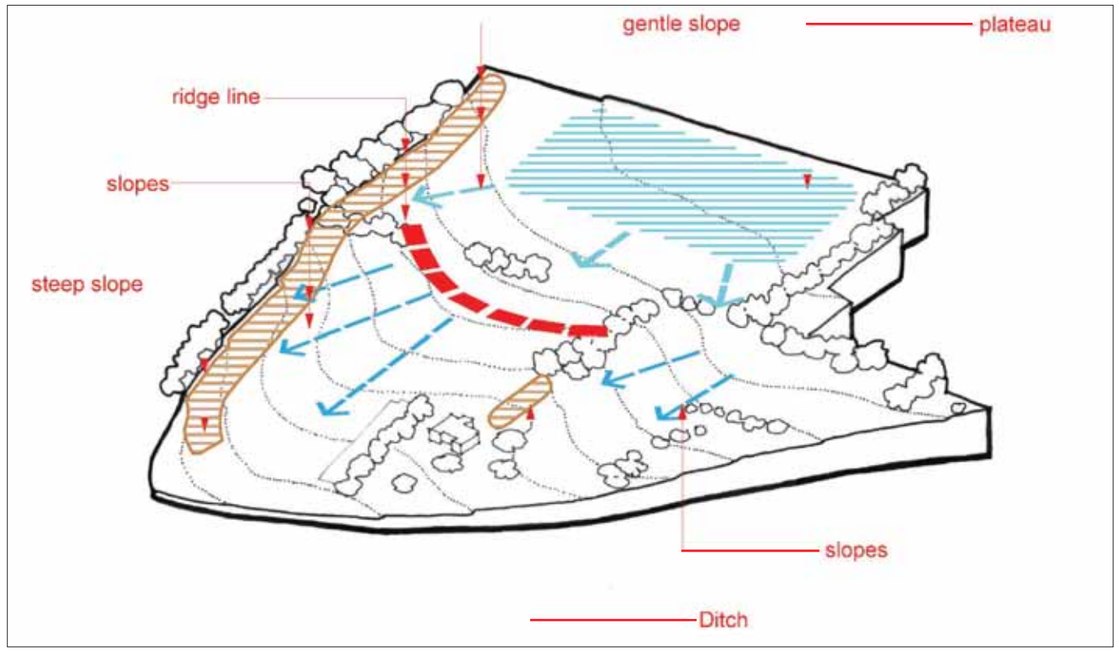


Figure 4 Topography

Topography

2.6 The basic site topography is shown in Figure 4. Although the north corner of the site is relatively flat the site then slopes down south eastwards from the 65m contour towards the University Road and the Beverley Farm buildings at between 50m and 55m above ordnance datum (AOD). In the southern-most corner of the site the level drops to 43.5m AOD. This represents a fall of approximately 21m from the flat area to the north down to the box culvert under University Road.

2.7 The majority of the site occupies a gentle promontory situated between two valley features. The western-most of these which runs along the boundary with St Edmund's School, is more pronounced and is occupied by a stream. The eastern-most is far more shallow and is part occupied by the Beverley Farm buildings.

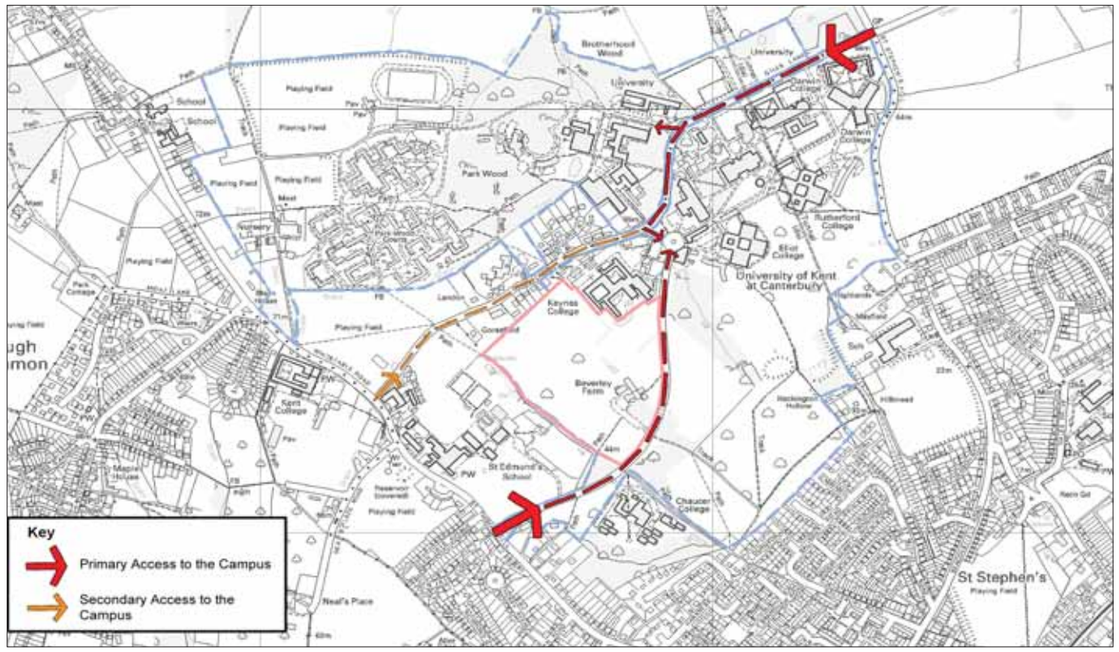


Figure 5 Access to the Campus

Access to the University campus

2.8 The site is accessed off University Road, which adjoins the Whitstable Road about 300m to the south-west, at St. Thomas Hill. Whitstable Road forms part of a north-south route from Whitstable into Canterbury city centre. There are two points of access to the campus. The first is from Whitstable Road into University Road as shown on Figure 5. This road gives direct access into the heart of the campus. The site is therefore an important gateway site because of its location directly adjacent to one of the main road entrances to the University campus.

2.9 The second access is from St Stephen's Hill, via Giles Lane. Giles Lane leads into the University campus linking with University Road. St Stephen's Hill also forms part of a north-south route from the Whitstable area (Chestfield and Swalecliffe) to Canterbury city centre. The University can also be accessed from Whitstable Road via Giles Lane at its western end, although this access is very narrow.

2.10 The Beverley Farm car park is un-screened and cars parked in this area are clearly visible from University Road and much of the surrounding area.

2.11 In terms of public transport the campus is well served by a number of different bus routes linking to the city centre, the rail station and other destinations. The closest rail station is Canterbury West, located on the north-western edge of the city and therefore well located for travel to the campus by bus. Cycle path and pedestrian facilities also exist serving the main University campus.

Figure 6 Agricultural Land

Agriculture and land management

2.12 The majority of the site is under grass and is cropped for hay. There are also mown grass paths across the site and a single line of outgrown hedgerow vegetation, crossing the site from the south-west to north-east, which divides the site into two parts.

2.13 The site is classified as land predominantly in urban use on the agricultural land classification maps, produced by the former Ministry of Agriculture, Fisheries and Food (MAFF now DEFRA). However, the undeveloped parts of the site are likely to be of grade 3 quality given that the immediate surrounding area is also grade 3 agricultural land (Figure 6).

Heritage and archaeology

2.14 An archaeological and historical desk-based survey was undertaken by the Canterbury Archaeological Trust in 2003, to assess the archaeological potential of the whole University campus. Although the study area covered the entire University of Kent campus, including the land the subject to this Brief, it was not specifically commissioned to assess the potential of the proposed Business Innovation Park site.

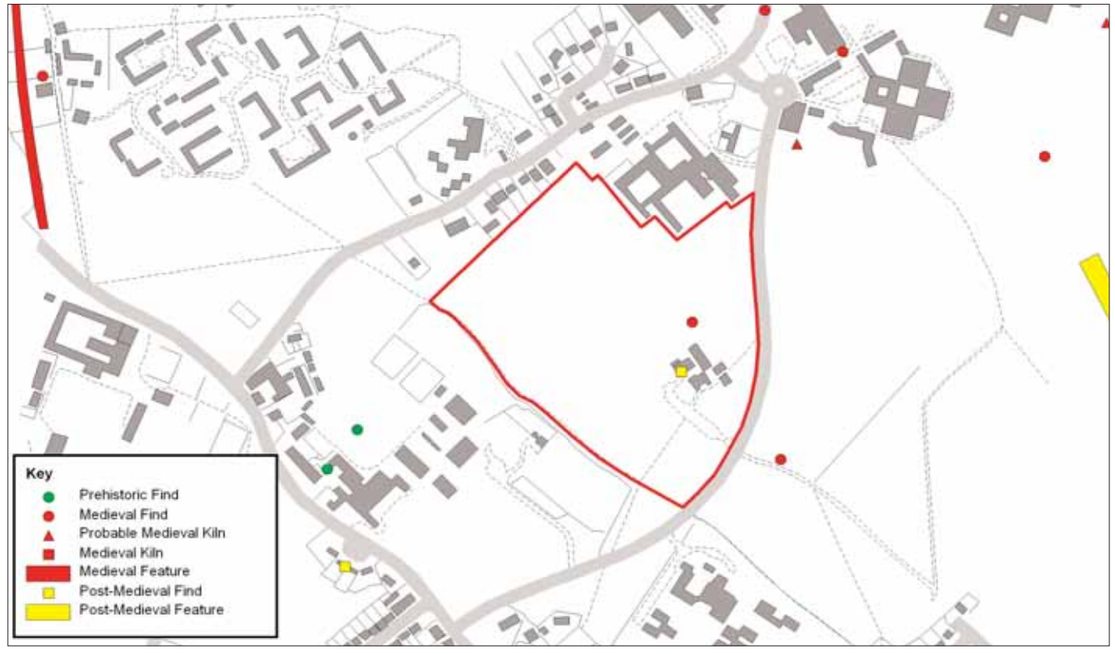


Figure 7 Archaeological Survey

2.15 The study notes that previous discoveries, both within the University campus and in the immediate vicinity, show that despite zones of earlier disturbance by various farming processes and later landscaping, important and significant archaeology still survives in localised areas within the wider landscape. In particular, prehistoric activity and settlement evidence is widely dispersed over the area and there are significant remains of medieval pottery and tile kilns from the key elements of the important medieval ceramics industry scattered across this landscape.

2.16 The study concludes that there is a likelihood that elements of prehistoric activity and settlement, related directly to the known foci of settlement in the Sarre Penn valley and close to St Edmund's School, have been preserved within the confines of the proposed areas of development within the campus. The location of archaeological finds on and adjacent to the Development Brief site are shown in Figure 7. There is also a likelihood that further medieval tile and pottery kilns, together with other elements of the medieval and later ceramics industry, may occur on the University campus.

2.17 Beverley Farmhouse is a grade II listed building. The central core of the existing farmhouse is a 15th century timber framed building, with studding to the first floor. The eastern section is 16th, or early 17th, century timber framed with brick infilling. The oldest part of the house is 'L' shaped in plan and was built over two storeys with four windows. During the nineteenth century a large wing was added to the west giving the building a 'T' shape in plan comprising two to three storeys with a red brick base, and faced with fish scale tiles.

2.18 In 1963 Beverley Farmhouse was purchased as part of the new University. The old dilapidated out-buildings were replaced by new pre-fabricated timber building in 1964. Extensive restoration work was carried out on the building in the 1990's.

2.19 Canterbury Archaeological Trust has produced a comprehensive report for the entire University Campus.

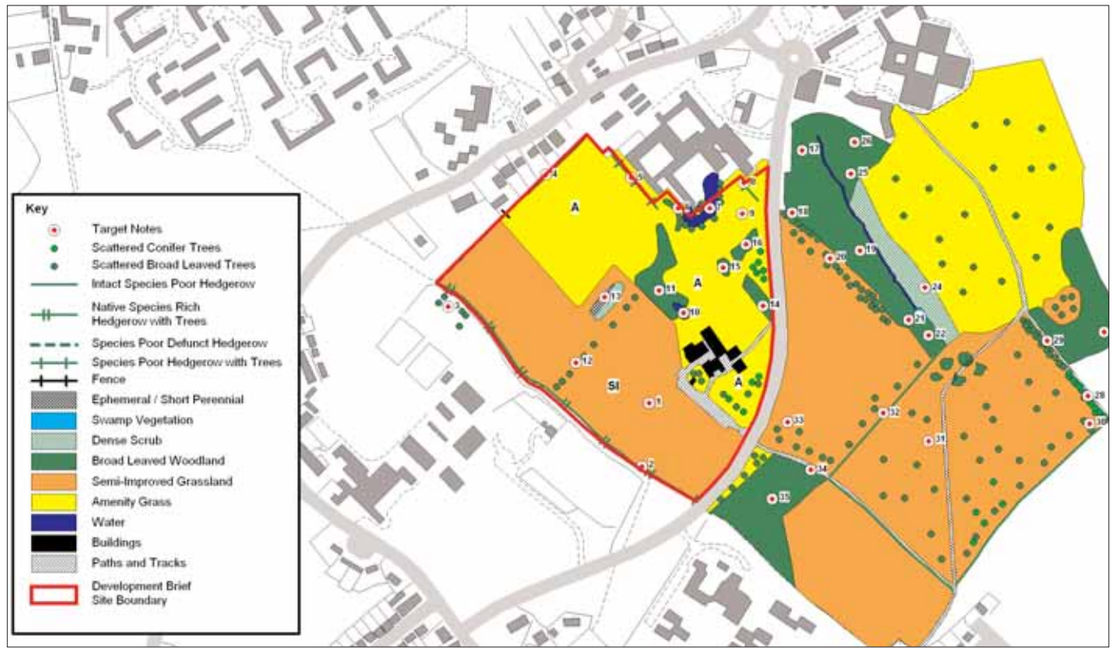


Figure 8 Ecology Survey

Figure 9 Geological Survey

Nature conservation

2.20 An ecological survey of the site was undertaken by Terence O'Rourke Ltd in July 2003, and the site was mapped according to the standard Phase 1 survey technique, as recommended by English Nature. The findings are shown in Figure 8. The site is characterised by a mix of semi-improved hay meadows, amenity grassland with scattered trees and small stands of scrubby woodland. There are also two ponds on site. The full ecological report is included for reference in Appendix A.

2.21 Features of wildlife interest include the hedgerow bordering the west of the site and a number of broad-leaved trees. The two ponds on site were found to contain limited wildlife interest at the time of survey. No signs of badger activity were recorded and no bat roosts were identified. However, a number of the mature trees and the roof space of Beverley House could provide a suitable environment for bat roosts.

2.22 The site is not designated or listed as being of any significant nature conservation interest and no rare, scarce or protected species were recorded during the survey.

Ground conditions

2.23 The solid geology of the site comprises Tertiary London Clay, which sits above the Oldhaven Beds (Figure 9).

2.24 The majority of the site is undeveloped land and is unlikely to contain any significant contamination.

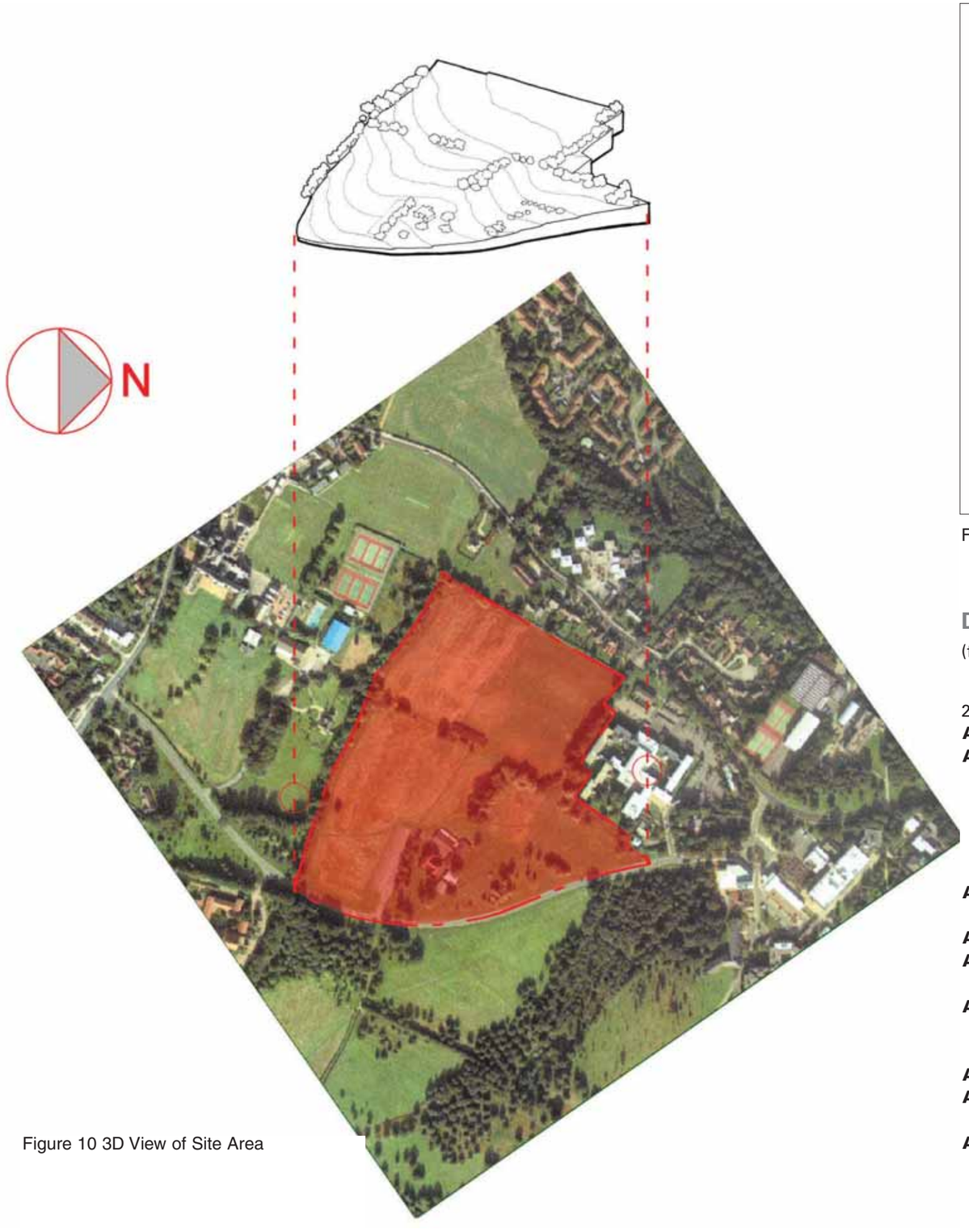


Figure 10 3D View of Site Area

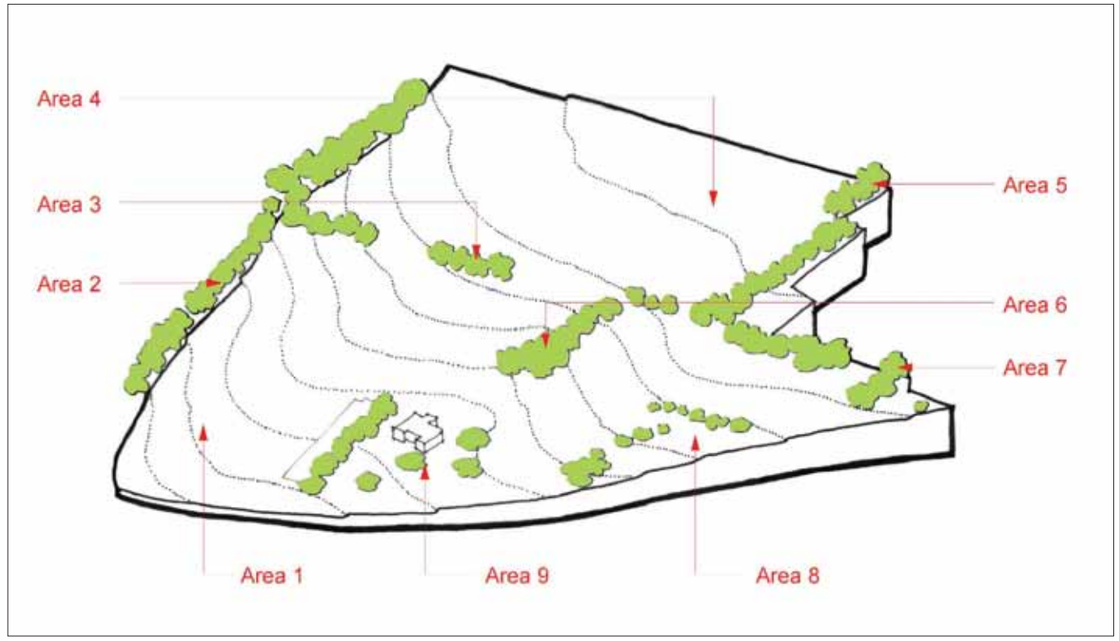


Figure 11 Distribution of Existing Vegetation

Distribution of existing vegetation

(from the Lloyd Bore Landscape Appraisal)

2.25 Areas of vegetation across the site are:

Area 1: Area of mown grass used for hay covers most of the appraisal site.

Area 2: Mixed deciduous tree belt ranging from from 8m to 20m in height. Predominantly semi-mature and mature Ash and Oak, some of which stand up to 30m in height. Some Hazel, Alder, Field Maple and Willow, with occasional Birch, Whitebeam, Elder, Damson and Dogwood. This area also contains a number of ornamental maples eg Acer saccharinum, where areas 2 and 3 converge. Some Oak, Hazel and Alder saplings (apparently self seeded) lie to the front of the tree belt with common species such as blackberry, nettle, bramble and ivy in the understorey.

Area 3: Small band of trees and young shrubs dividing Area 4. Some mature trees which stand approximately 10 to 15m in height are of significance (e.g. Oak, Sycamore and Acer) which stand.

Area 4: Area of amenity grass cut to facilitate sports activities such as football and hockey.

Area 5: A mature band of Oak and Beech, between 25 and 30m in height and extensive ivy growth, providing a screen between Keynes College and the site area.

Area 6: Mixed group of trees, predominantly maturing Willow species (including babylonica, viminalis, and caprea), with some Hawthorn, Holly and Dogwood. Other mature Oaks on the south west side reach heights of up to 25/30m.

Area 7: Ornamental conifers, willows, and reeds line the margin of a small lake next to Keynes College.

Area 8: Extensive area of maintained activity grass, typical of the university grounds, with scattered clusters of mixed deciduous and coniferous tree planting.

Area 9: Beverley Farmhouse, situated amongst mixed planting including Silver Birch, Fir and Blackthorn.

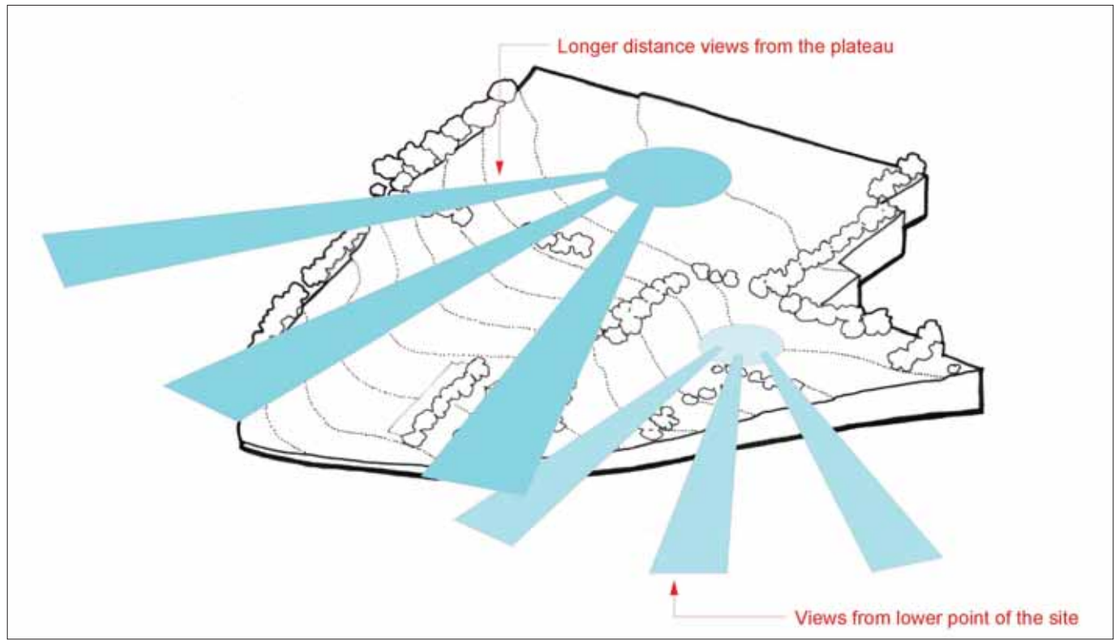


Figure 12 Views from site to City Centre

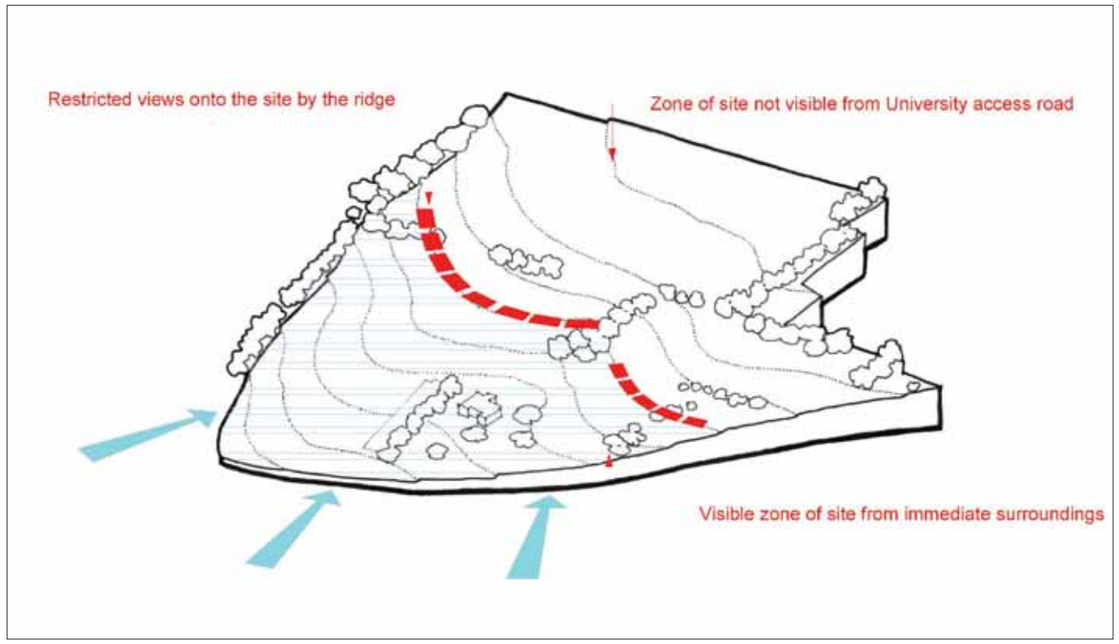


Figure 13 Views from adjacent areas

Views

2.26 An extensive assessment of views was undertaken by Lloyd Bore Landscape Architects between August and October 2002. A full record of their findings is included within their report dated January 2003.

2.27 The key characteristics of the views to and from the site area are illustrated on figures 12 to 14. They can be summarised as follows:

Figure 12: The upper parts of the site, as with many areas of the University slopes, provide the broadest and most unhindered views south-eastwards over the city centre. Views westwards towards St Edmund's School are interrupted by a dense band of vegetation on the south-western boundary. From the lower part of the site around Beverley Farmhouse the views are interrupted by existing vegetation.

Figure 13: From University Road views of the upper part of the site are not possible due to the ridge and tree line as indicated on the drawing. The remaining views are typical of the University slopes being a landscape of open grass fields partitioned by belts of mature trees on gently sloping land.

Figure 14: The upper levels only of the appraisal site are visible from several locations around Canterbury city centre.

2.28 From the above analysis it is evident that development of the upper section will potentially be visible from a number of distant viewpoints across the city, particularly from the south and south-east. It is noted, however, that development here would be consistent with the pattern of existing campus development at the University.

2.29 Development on the lower part of the site, in the vicinity of Beverley Farmhouse and the area to the west of it, would appear to have less visual impact on these distant views. In terms of views from the site, generally the higher the vantage points, the more expansive and spectacular the views across the city.

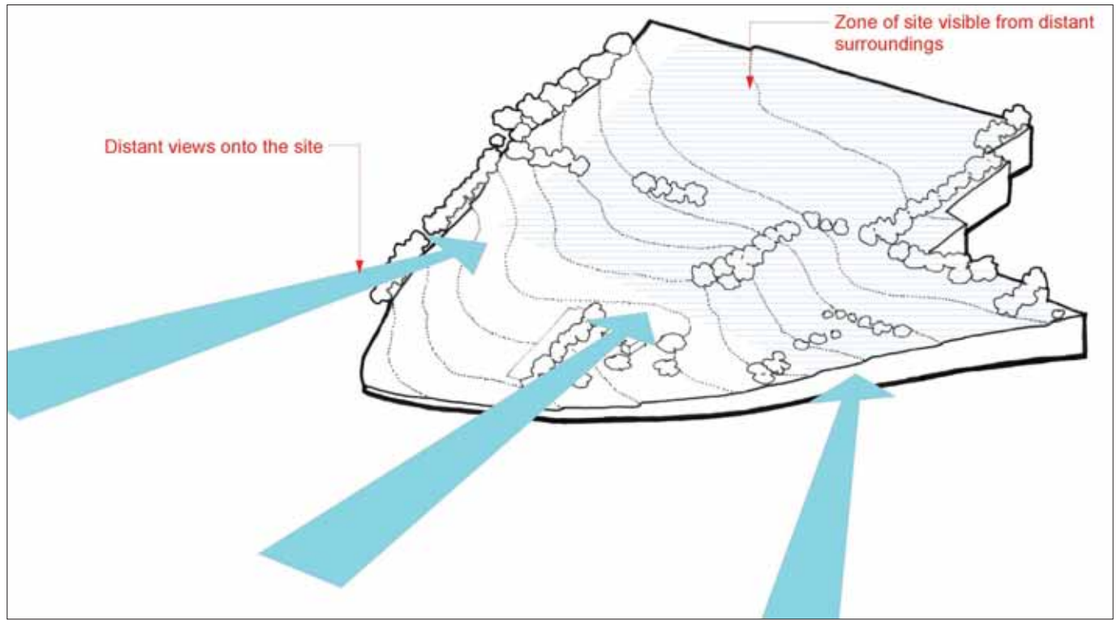


Figure 14 Distant views

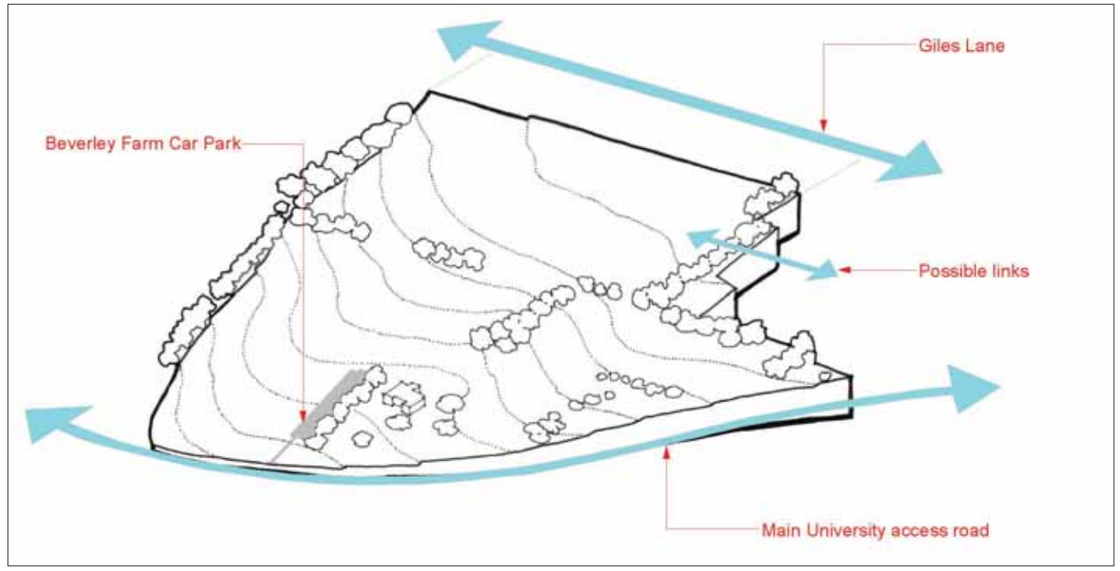


Figure 15 Context

Contextual analysis - relationship with the campus

2.30 The site area is immediately adjacent to three principal building areas of development. Firstly, Keynes College to the east is a four storey mixed-use university building consisting of wings of student residences, teaching spaces and amenity/social accommodation. It comprises a variety of different building materials with a mixture of timber, pre-cast concrete blocks and panels, mixed aggregate panels and aluminium glazing. Access is possible to the site via the rear car park of the college.

2.31 Secondly, a mixture of private residential properties are situated to the north of the site and have views over it. It will be important that this local amenity is protected against excessive noise, light pollution as well as against overlooking from new development.

2.32 Thirdly, St Edmund's School lies to the west comprising a mix of original building with new development, in particular the new Sports Facility with a distinctive blue metal cladding. The school is effectively screened from the site by the strong belt of trees which extends along the length of the boundary.

2.33 The combined impression of the built development on the University site is of a horizontal massing with strong vertical elements such as glazing, projecting bays and entrances.

Planning history

2.34 Planning permission was originally granted for development of the University in the 1960's and much of the development of the campus took place at that time, although some further development has taken place since. Much of the Development Brief site remains undeveloped and hence the only planning history for the Beverley Farm site relates to the siting of Portakabins and double garage.

2.35 The most recent planning history at the adjacent Keynes College relates to the erection of a 3-storey psychology building comprising lecture theatre and teaching and research accommodation. An initial application for 1860 sqm was granted planning permission on 21st May 1999 (99/00366), and a revised application for 909 sqm was granted planning permission on 11th February 2000 (99/01157).

Chapter 3: Site Constraints and Opportunities Analysis

Access and highways

3.1 WSP Development was commissioned by the University of Kent to undertake an Initial Transport Appraisal for the proposed Business Innovation Park. The full technical report is included in Appendix C. The Initial Transport Appraisal reviewed the overall scale of travel demands from the proposed development. It considered the constraints to access and opportunities for mitigation. It also set out a methodology for assessment of impacts at planning application stage. In order for the proposed development to be acceptable in planning terms it is necessary to demonstrate that the adjoining road network is capable of supporting it.

Local road network

3.2 The local road network in the vicinity of the University campus is close to capacity, particularly during the morning and afternoon peak periods. The traffic flows on the Whitstable Road radial route are tidal with flows heaviest and close to capacity southbound in the morning peak as people make their way to work, and the reverse in the evening as traffic makes its way northbound out of the city centre. Initial trip generation calculations indicate that the road network in the immediate vicinity of the University campus is already close to capacity during peak periods and therefore is unlikely to be able to accommodate all of the vehicle trips likely to be generated by the development of the Beverley Farm site without some mitigation measures.

3.3 It is likely, therefore, that there would be a need to transfer some of the newly created trips, as well as some existing trips to other modes of travel, such as public transport, walking and cycling. These should together form the basis of a University Travel Plan which would form an integral part of the Transport assessment at application stage. Potential opportunities exist to incorporate a 'Park-and-Ride' facility into the development to be used by occupiers of the Business Innovation Park, staff and students travelling to the campus and potentially by other road users travelling from the Whitstable area to Canterbury city centre, thus reducing the number of vehicles on Whitstable Road between the University and the city centre. The Park-and-Ride could provide an opportunity to introduce environmentally sustainable buses, fuelled by hydrogen gas (generated from photovoltaic cells and electrolysers incorporated into the new development), which would reflect the innovative activities taking place at the new business centre. This would require further investigation and funding from other sources. There is also the opportunity to work with the County and City Councils to provide a park and ride facility offsite as part of a more general public facility. Public transport links from that location to the Innovation Park and campus could remove significant numbers of private car journeys from the local road network around the university. The university can influence the numbers of car journeys to the campus by the parking management regime, thereby reducing traffic flows to the site. This issue would be addressed by the Travel Plan.

3.4 There are also constraints imposed by existing road junctions. The junction of the A290 Whitstable Road and University Road is a priority junction and has a right turn storage lane. There is limited scope for improvement of this junction due to the gradient of Whitstable Road and signalisation would not be desirable. The capacity of this junction would require assessment as part of the Transport Assessment to demonstrate that it would function safely with the development in place.

3.5 The junction of the A290 Whitstable Road and Giles Lane is constrained and is not a suitable access for any significant amount of traffic due to its narrow width at this point. The operation and capacity of the Giles Lane junction with St Stephen's Hill and Canterbury Hill has already been improved but would not be suitable for any further significant increase in traffic due to the gradient of Canterbury Hill.

3.6 To serve the proposed development area, a new access will need to be taken from University Road, either from the current access to the Beverley Farm buildings, or via a new access road taken from another suitable point further east along University Road.

3.7 The existing Beverley Farmhouse car park access is not screened and the cars parked there are prominent in views from the University Road and much of the surrounding area. The creation of a new access from University Road would provide an opportunity to reconfigure the existing access and car park arrangement, either by redesigning the existing access, or by providing a new access off University Road, which would then link into a redesigned Beverley Farm car park. This approach would introduce a further opportunity to improve and enhance the setting of Beverley Farmhouse.

3.8 Given the visibility of the site from the surrounding area, an access road from University Road, serving the central and northern parts of the site could, depending on its location, form and configuration, be damaging to the landscape. However, an opportunity exists to develop a new access road off University Road, north of Beverley Farmhouse, that would follow the contours of the land resulting in a reduced visual impact on the landscape. There may be a need for an emergency access to the northern part of the site when development is complete. The opportunity exists to provide a restricted gated access either from Keynes College to the east or from Giles Lane to the north. However, any new access to Giles Lane would be controlled by means of a locked gate, and would only be accessible to emergency vehicles. Provision of suitable access at these points for pedestrian and cyclists will be expected.

Public transport

3.9 Although the campus is well served by bus and several schemes exist to assist and encourage staff and students to use local bus services, further opportunities may exist to make improvements to these schemes and to provide incentives to encourage a greater modal shift from private vehicles. Furthermore, opportunities exist to improve the bus infrastructure, such as shelters and timetable information, on the campus which at present is very poor, to promote bus travel as an attractive mode of travel. The existing usage of public transport, and measures to encourage a transfer from car travel to bus travel would be evaluated within the Transport Assessment.

Cycling

3.10 Although Canterbury has a good cycle path network, access to the campus from Whitstable Road via the junction with University Road is not suitable for cyclists due to the steep gradient and the difficulty in manoeuvring across oncoming traffic from a stationary position. The cycle path from Canterbury West, which links to the city's cycle path network into the centre of the campus is a far safer route as it is off the carriageway and is easier for cyclists to negotiate. The junction of Giles Lane with St Stephen's Hill and Canterbury Hill is not particularly suitable for cyclists because of the gradient and therefore does not offer a more attractive route than the off-road cycle path.

Pedestrians

3.11 Pedestrian access to the campus via the Whitstable Road/University Road junction is not ideal because of the steep gradient on Whitstable Road and the lack of footway on the southern side of University Road forcing pedestrians to cross at the junction. However, there is pedestrian access to the campus off the carriageway along the same route as the good existing cycle path network. This offers a direct link from Canterbury West Station.

Landscape and visual

3.12 A landscape appraisal was carried out by Lloyd Bore Landscape Architects in January 2003, to consider the specific landscape characteristics of the site, and its ability to accommodate development in the form of a new Business Innovation Centre.

3.13 The appraisal draws upon the Canterbury Landscape Appraisal (November 1998), prepared by Kent County Council's KPS Landscape Group, on behalf of the City Council. This landscape appraisal notes that the site is located within a character area referred to as the Stour Valley Slopes. This area is defined as follows:

"The Stour Valley Slopes rise above the Stour Valley forming a very definite ridge which contains Canterbury along its Northern western flank. The area stretches from Rough Common in the west to Broad Oak in the east. Where the Stour Valley Slopes are undeveloped these slopes are usually grassed either as playing fields, amenity land or pasture. The agricultural land classification is mostly grade 3 with small pockets of grade 2 on the lower slopes towards Broad Oak where the soils are of better agricultural quality".

3.14 The emerging Canterbury District Local Plan identifies the Stour Valley, including the development site, as an Area of High Landscape Value (AHLV) under Policy R6. In addition to areas of high landscape quality, the landscape designation seeks to protect features of archaeological heritage, including the historic setting of Canterbury and the World Heritage Site. The Lloyd Bore assessment notes that the Canterbury Landscape Appraisal describes the condition of the Stour Valley Slopes as moderate,

although in some areas this is considered to border on poor. It also notes that many of the area's distinctive features have been lost to development or have become eroded though neglect. However, the traditional landscape of the Stour Valley is still evident despite the recent changes, and therefore much of the area is classified as having a high level of sensitivity to change.

3.15 The Lloyd Bore appraisal considered views from key publicly accessible locations around the city. If found that the site is visible from several locations around Canterbury city centre. There are also a number of landmarks close to the site, including the Water Tower, St Edmunds's School, the various University college buildings and the radio mast at the school of Electronic Engineering, which are easily identifiable from these locations. In general, views towards the site are most commonly afforded from due south and south east of the city in locations where the land rises higher than the city centre, thus providing a vantage point towards the Stour Valley Slopes.

3.16 The northern or upper part of the site is visible from locations around the city centre, whilst the southern and western parts are not visible due to a dense band of vegetation on lower parts of the University slopes.

3.17 Development on the upper section of the site would potentially be visible from a large number of distant viewpoints across the city, particularly from the south and south east, and would therefore need to be carefully designed to reflect the existing pattern of built development on the University campus Development on the lower part of the site would have less impact on these distant views, although this would be dependant on the height of the proposed new buildings.

3.18 Although landscape sensitivity and views from the city are constraints upon development it is considered that there are also significant opportunities to site and design a new business innovation park complex which respects the landscape character, whilst also achieving some of the following appropriate actions for the Stour Valley Slopes, as set out in the Canterbury Landscape Appraisal Plan. These are:

- Encourage the restoration of the historic parkland planting
- Strengthen the boundary on the edges of Hales
- Locate estate in a manner that reflects the historic connections
- Strengthen and recreate the traditional field pattern
- Conserve and restore open grass slopes overlooking the city
- Resist further fragmentation
- Strengthen the structure of the field pattern on the slopes beneath the University, resisting the further introduction of scattered ornamental planting
- Resist the introduction of dominant features on the visually sensitive skyline.

Cultural heritage

3.19 The grade II listed Beverley Farmhouse is the only permanent building on site. It is important that the setting of this listed building is protected. However, there may also be some opportunities to enhance its setting, particularly with regard to the removal of a number of the unsympathetic adjacent temporary buildings which are now in a poor state of repair. The presence of Beverley Farmhouse and consideration of its setting will therefore have a significant bearing on the nature and design of any new development that might take place in proximity to the building.

Nature conservation

3.20 The Canterbury Landscape Appraisal describes the nature conservation interest in the Stour Valley Slopes area as follows:

"Traditionally the Stour Valley Slopes would have been a pastoral landscape divided by hedgerow and woodland blocks. The pattern of this landscape is still evident today although often fragmented by recent changes in land use. The planting of inappropriate species in and around playing fields and scattered ornamental trees in amenity areas such as the University have eroded the traditional vegetation patterns and fragmented wildlife corridors."

3.21 An ecological assessment undertaken by Terence O'Rourke in July 2003 found that the only significant features of wildlife interest on the site were the hedgerow bordering the west of the site and a number of broad-leaved trees. The two ponds were found to have no obvious wildlife interest and there were no obvious signs of badger activity, or bat roosts on site during the survey. However, given the time of the ecological survey and its limited nature, this should not be taken as conclusive evidence.

3.22 The mature trees on site, particularly those adjacent to the western boundary and stream, and the exterior and internal spaces associated with Beverley Farmhouse could provide ideal habitats for bat and bird roosts. Furthermore, the water bodies may reveal the presence of reptiles, invertebrates and protected amphibians, such as Great Crested Newts. Therefore, it will be necessary for appropriately qualified experts to undertake a more detailed ecological surveys, in line with English Nature guidelines, to investigate the presence, and population size of any protected species on, or immediately adjacent to the site. The information obtained from this survey work will be required to support any future planning application. Where necessary an appropriate ecological mitigation strategy will be expected to ensure that both terrestrial and aquatic habitats, used by protected species, are conserved as part of any development proposals.

3.23 There may be some opportunities to improve and enhance the parts of the site with nature conservation interest, such as the hedgerow and mature trees along the site boundary and these should be further investigated.

Archaeology

3.24 An archaeological and historical desk-based survey undertaken by the Canterbury Archaeological Trust in 2003 found that there was a likelihood that elements of prehistoric activity and settlement, related directly to the known foci of settlement in the Sarre Penn valley, and close to St Edmunds School, have been preserved in the general area. It was also concluded that there is a likelihood that further medieval tile and pottery kilns, together with other significant elements of the important medieval ceramics industry, which may continue into the early-mid post medieval period, may also occur on the University campus.

3.25 The desk-top appraisal has established that the site may contain preserved archaeological remains although there is no evidence to suggest that the proposed development site at Beverley Farm has any particular archaeological significance.

Topography

3.26 The topography imposes significant restraints on the maximum development potential of the site.

3.27 In particular, areas to the west boundary, where gradients are as steep as 1:5, are not considered to be capable of viable commercial development. These areas have therefore been zoned for amenity space.

3.28 In addition, the general principle of development apparent over the remainder of the University site has been adopted in respect to the setting of development on the ridge line with a front apron of grassy slopes. The highly visible area of grassland just below the ridge line has been maintained as open amenity space. This strategy has resulted in the requirement for a high density of development on the flat plateau to the northern area of the site.

Hydrology/drainage

3.29 An initial assessment of existing and future surface and foul water drainage was carried out by WSP Development in 2003. The key findings of this study are summarised below.

Surface water

3.30 The University is drained by a network of private drainage pipes which outlet to water courses and the public surface water drainage system around the site. The adjacent Keynes College and the University medical centre drain via a pipe which flows alongside University Road and collects the road drainage from University Road. This pipe outlets into the water course at the downstream side of the site. Part of the roof drainage from Keynes College appears to feed a pond on the south side of the College. This pond is ornamental and would have only a limited balancing capacity.

3.31 There is another smaller pond to the north west of Beverley Farm. An outfall pipe from this pond diverts the outflow from it around the south-west side of Beverley Farm and into the drainage in University Road.

3.32 Canterbury City Council has indicated that Salisbury Road, approximately 500 metres the south east of the site and directly downstream of it on the water course described above, is susceptible to localised flooding during periods of wet weather. In light of the flooding problems downstream of the site the runoff rate from the site should be limited to a rate equivalent to the existing green fields.

3.33 Surface water run-off will drain to the existing ditch, which forms the south-west boundary of the site.

Foul drainage

3.34 The existing foul drainage system comprises a network of private sewers, most of which connect to a main outlet pipe which discharges eastwards to the public sewer in St Stephen's Hill. Hothe Court Farmhouse in the north-west corner of the campus discharges westwards into the public sewer in Whitstable Road.

3.35 The outlet pipe from Keynes College runs down University Road on the eastern boundary of the site to a point adjacent to Beverley Farm, where it is joined by the outlet pipe from Beverley Farm. A pipe runs from this point eastwards and northwards to connect with the main outlet pipe from the University at a point approximately 400m east of the eastern boundary of the proposed development site.

3.36 The new development would need to discharge to the public sewerage system and appropriate consents would be required from Southern Water Services (SWS), who would need to assess the capacity of the receiving system. The initial phase of development would be drained by gravity to a pumping station located near the southern corner of the site. The pumping station would pump either to the existing University system in University Road, discharging eastwards into the public sewer in St Stephen's Hill, or westwards on University Road to a connection with the public sewer system in Whitstable Road.

3.37 Future development phases could drain by gravity to either the existing University system, or to the pumping station constructed during the initial phase. However, capacity checks would be required both of the University private system and the SWS public system.

Drainage - design and landscape considerations

3.38 The rate of surface water run-off from the developed site will be greater than that which arises from the existing undeveloped site. This must be controlled to avoid adverse impacts to areas bordering the watercourse down stream of the university. This is normally carried out by restricting the rate of run-off from the site to the level agreed with the Environment Agency and storing the balance on site for slow release on the downstream watercourse.

3.39 However, due to the open nature of the campus and proximity to residential areas, public safety associated with any proposed open balancing facilities is a primary consideration and detailed proposals demonstrating how public safety has been addressed will need to be agreed with Canterbury City Council. Whichever option of surface water retention is used, the design should incorporate measures to minimise the run-off rate of the site, to allow for infiltration into the ground where practicable. It will also include measures to improve the quality of run-off before discharging into the water course.

3.40 An initial estimate of the storage volume required if ponds / swales were to be provided as part of a landscape and drainage scheme would be 500 cubic metres to provide for the initial phase and a total of 3,000 cubic metres to provide for the whole site. With an approximate depth of a pond / swale at 1m and typical 1:2 side slopes, the footprint of a dry pond to service the initial phase of development would be approximately 900 square metres.

Residential amenity

3.41 The northern part of the site abuts private residential dwellings on Giles Lane and student accommodation associated within Keynes College, both of which have views across the site. Impact on residential amenity is a potential constraint on the upper parts of the site, where issues of excessive noise, light and potential overlooking from new development will all need to be carefully considered and fully addressed. Any future planning application will need to demonstrate that suitable technology will be installed to minimise to an appropriate level any impact from lighting.

Security and public access

3.42 There are a number of public footpaths crossing the site. Footpath CC5 runs along the western site boundary, whilst footpath CC68 runs parallel to the University Road boundary. The general public also has unrestricted access across the University slopes. The issues of continued public access and site security must be taken into account in the design and site layout. Access and security must be considered in the context of the adjacent school, the proposed Business Innovation Park and the public footpath network. Consideration must also be given to the security and safety of the public and students when using these spaces.

Architectural context

3.43 The Lloyd Bore landscape appraisal concludes that the existing campus architecture provides a context for discussion of the style of any future development on the site. It notes that the University buildings provide a strong massing on the Stour Valley Slopes, many of which form a strong backdrop to views across Canterbury. The Lloyd Bore landscape analysis also found that the buildings have a strong horizontal form, which is often punctuated by strong vertical features, such as stair wells, which provide a 'rhythm' to the elevational treatment of the architecture. The report notes that this powerful architecture, set on the horizon above the city, is a familiar local landmark, in the same way as the distinctive profile of the water tower and St. Edmund's School.

3.44 The water tower is considered to be a prime example of a vertical feature and light colours contrasting with the surrounding landscape to create a distinct landmark feature. Whilst the constraints imposed by the existing architectural context must be respected, an opportunity exists to develop a design that takes an innovative approach to architecture, engineering and landscape design.

Chapter 4: Policy Context

National Planning Policy

4.1 The Government has published a series of planning policy guidance notes (PPGs), intended to provide the background to most aspects of the planning system. PPG guidance is reflected at the regional and local level in Kent through Regional Planning Guidance, the Kent County Structure Plan and Canterbury District Local Plan.

PPG1 General Policy and Principles

4.2 PPG1 promotes the principle of sustainable development to secure higher living standards while protecting and enhancing the environment. Development should seek to conserve cultural heritage and natural resources, taking care to safeguard designations of national and international importance. Development should be designed to a pattern that helps to minimise the need to travel. PPG1 also notes that good design can help to promote sustainable development, improve the quality of the existing environment, attract business and investment, reinforce civic pride and a sense of place, and secure the public's acceptance of necessary new development.

PPG13 Transport

4.3 The objectives of PPG13 are to reduce the need to travel by integrating planning and transport at all levels to promote sustainable choices and accessibility by modes of transport other than the car. It is recognised that higher and further education establishments are major generators of travel and should be located to maximise their accessibility for public transport, walking and cycling. Similarly, proposals to develop, expand or redevelop existing sites should seek to improve access by public transport, walking and cycling.

Regional Planning Policy

4.4 The regional planning context is provided by Regional Planning Guidance for the South East (RPG9). The most recent version of RPG9 was published in March 2001 and sets the framework for the period up to 2016. This guidance supersedes the Regional Planning Guidance for the South East issued in March 1994, which covered the period up to 2011.

4.5 Revised RPG9 reaffirms the Government's commitment to the expansion of the higher education sector. Policy RE2 notes that human resource development should be recognised as a central component in harnessing and promoting future economic success in the region and that access to job opportunities should be improved for those who are disadvantaged in the labour market. It states that:

"development plans should include policies which ensure that sufficient and accessible premises are available for training and education purposes…local authorities should consider how they can support similar measures to those already employed by some of the best universities and colleges in establishing effective links with knowledge based industries."

4.6 Amongst other issues, Policy RE5 encourages development plans to investigate the scope for mixing employment uses with other land uses including education.

4.7 Policy RE9 requires active encouragement of high value-added activities. Including the grouped location of such activities in business clusters, where economically beneficial and environmentally acceptable. The policy requires development plans to encourage existing and emerging clusters and to promote the diffusion of innovation throughout the region. It also notes that this could be achieved by identifying science and technology parks that are well served by sustainable modes of transport and close to universities or other research facilities.

4.8 Policy RE10ii seeks to encourage the provision of a range of sites in support of small and medium enterprises from a variety of economic sectors, including incubator units and innovation centres in order to help encourage economic diversity.

The Development Plan

Kent Structure Plan

4.9 The Kent Structure Plan Third Review (to 2011) was adopted in December 1996. A key objective of the Structure Plan is to promote economic development in east Kent, reflecting the perceived scope for economic growth and development.

4.10 The Structure Plan acknowledges the importance of continuing to develop the Kent economy. It recognises that the selective provision of land for new economic development on a sufficient scale and at appropriate locations is necessary to ensure the levels of inward investment and job creation required by the Kent workforce. The main focus of this new employment generating activity should be east Kent.

4.11 The strategic policy for east Kent (Policy S4) is to stimulate economic activity and create new employment opportunities, whilst recognising the environmental constraints which apply. However, it is recognised that all urban areas of east Kent have a role to play in achieving this objective and attracting new inward investment.

4.12 Paragraph 3.65 of the Structure Plan acknowledges that Canterbury's economy and image is enhanced by the presence of the University of Kent, which provides a higher education facility of international repute. The Structure Plan also notes that the continued success of the university should be fostered and that future expansion plans are a matter which Canterbury City Council should address in its Local Plan.

4.13 Policy ED1 makes provision for a total of 120,000m^2 of floor space for A2/B1 between 1991 and 2011. However, in each District Council area the precise mix of development to be provided is a matter for the local planning authorities to determine in the light of specific local circumstances. In addition, the policy states that in making provision for economic development:

"At the historic city of Canterbury, the protection and enhancement of the historic environment of the settlement, and its setting, will be the overriding consideration."

4.14 Paragraph 7.43 states that the B1 guidelines for Canterbury reflect the scale appropriate to the labour needs of the area and could be supported by the local labour market. The guidelines have been set at a level to allow scope for economic stimulation and selective urban renewal without breaching conservation constraints. The implementation of these guidelines must be considered in the context of the overall strategy for the city which is to protect and enhance its environment.

4.15 Policy ED2, which relates to the quality of employment development, requires that allocations for economic development in Local Plans are made following a detailed assessment of the availability and quality of commitments in the area.

Canterbury Local Plan (adopted)

4.16 The local planning policy framework for the site is provided by the Canterbury District Local Plan (to 2001), which was adopted in December 1998. The Local Plan was prepared in accordance with the policies of the adopted Kent County Structure Plan.

4.17 The first review of the adopted Canterbury Local Plan is now well underway and the relevant policies within the emerging Local Plan must also be taken into consideration. The First Deposit Draft Canterbury Local Plan was published for public consultation in May 2002. Following this a number of amendments were made to address objector's concerns and the Revised Deposit Draft Canterbury Local Plan was published for public comment in March 2003.

4.18 A key objective of the adopted Canterbury Local Plan is continued economic development. This is to be encouraged by providing a greater diversity of business and employment opportunities. It is recognised that the district as a whole must be properly presented to businesses in order to maximise the potential economic benefits of any new public or private sector initiatives in east Kent as a whole. However, in the city of Canterbury itself the Local Plan has adopted a development strategy that broadly seeks to restrain major commercial growth in order to protect the historic city centre, whilst seeking to ensure that local business can continue to thrive and expand (paragraph 2.122).

4.19 The Local Plan recognises that education is an important sector in Canterbury, comprising a wide range of educational establishments, including the University of Kent. The City Council also acknowledges the employment opportunities that are generated by the education sector, its significant role in the local economy and its wider importance in terms of the life of the city.

4.20 At the time of preparation the adopted Local Plan anticipated that some further and higher education establishments were considering expansion. Paragraph 3.78 requires the need for expansion and the lack of other suitable alternative sites to be demonstrated so that need can be assessed against impact. It also states that long-term development briefs should be prepared, which identify those areas for major development for education and ancillary uses. Other key issues to be considered include the provision of satisfactory transport access, without resulting in an increased dependence upon the private car, and the further encouragement of public transport, walking and cycling.

4.21 Policy C20 relates to the expansion of the University of Kent at Canterbury. This permits educational and ancillary uses on the sites identified on the Proposals Map (including Beverley Farmhouse and adjoining land) and extensions to existing buildings and minor development outside of the identified areas, subject to matters of design, siting, access, landscaping and open space. The policy does, however, preclude any new development within the university area that would generate additional traffic until improvements at Giles Lane/St Stephen's Hill have been completed.

Canterbury Local Plan (first review)

4.22 Economic growth is one of the key objectives identified in the First Deposit Draft Local Plan (April 2002), which is required to unlock the district's potential. The Local Plan Review acknowledges that the expansion of the knowledge-based economy, including the provision of new facilities like the proposed new Business Innovation Park at University of Kent campus, offers a strong and diverse economic environment, which will be of benefit to investors and employees in the district.

4.23 The plan recognises that investment in Canterbury has traditionally been linked to retail, residential, education and leisure development and as a result the district has low average wage levels and there is a increasing gap between the district, west Kent and the rest of the South East. It concludes that there is little prospect of change without planning policy intervention. It therefore proposes to address this by seizing the opportunity to develop a growing knowledge-based industry derived from the international reputations and recognition of the district's universities and colleges. It states that this will require the formation of greater links between business and university - based research and technology (paragraph 1.10).

4.24 One of the Council's Strategic Development Objectives (Paragraph 1.24) is to encourage and locate business innovation associated with the research and development activities of universities and colleges. Paragraph 3.9 envisages that real benefits can accrue for the district and the wider Kent area if the unique higher education resources in Canterbury can be used to lever the development of commercial knowledge-based enterprises in the area. Paragraph 3.13 also accepts that the district must capitalise on its strengths through the promotion of its university ties and highly educated population to highlight Canterbury as a location for knowledge-based industries and to develop suitable premises.

4.25 The University of Kent and the other major education institutions already make a significant contribution to the economy injecting £100 million in to the local economy each year. The Angle Technology Ltd report assessed the potential for developing and expanding the local knowledge-based economy and investigated the physical development required to facilitate this expansion.

4.26 The report concluded that there is potential demand for about 19,000 sqm of accommodation for knowledge-based businesses in Canterbury, incorporating 1,900 sqm for incubator accommodation. The generation of this level of demand will depend upon creating a knowledge environment in close proximity to higher education institutions and maintaining close connections with major private R&D facilities in east Kent.

4.27 Higher education institutions are the likely root source of high growth knowledge-based start-up companies in Canterbury. Other possible sources are the relocation of existing local companies, inward investment from new companies setting up new operations, and companies wishing to be associated with the higher education institutions.

4.28 Canterbury's proximity to the east Kent and north Kent regeneration areas and its transport links to the M25 and the Channel Tunnel constitute a strategic location that offers an opportunity to interact with the sub-region. There is potential for specific incubated business to spin out and act as a catalyst for growth in the more depressed areas of the wider region.

4.29 The City Council's economic development objectives will partly be achieved through the allocation and promotion of a Business Innovation Park development (including incubator space and land for expansion) on the campus of the University of Kent (new Paragraph 3.14b). Policy ED7 therefore safeguards land on the University of Kent campus subject to the preparation of this Development Brief incorporating design and transport statements and appropriate measures to mitigate the impact of development on the landscape and traffic.

4.30 The site of the proposed Innovation Park, and the rest of the university campus is part of the valley of the River Stour around Canterbury Area of High Landscape Value (Policy R6). This area is considered to be of local importance and whilst not of sufficient quality to be considered to be of county significance, has a distinctive high quality landscape. The designation is intended to protect the historic setting of Canterbury cathedral and the World Heritage site.

Supplementary Planning Guidance

4.31 As part of the preparation of the Canterbury District Local Plan First Review Deposit April 2002 Canterbury City Council published draft Supplementary Planning Guidance (SPG) to support its planning policies. The following draft SPG are considered relevant and should be addressed as appropriate in preparing any planning applications pursuant to this brief:

- Heritage and conservation
- Place-making - the urban design approach
- Trees and development.

4.32 The need to stimulate the knowledge economy and proposals such as the proposed Business Innovation Park at the University of Kent Campus are supported by a range of other education and economic policy initiatives . For a summary of this policy advice and guidance please refer to Appendix D.

Design Principles

1.0 Setting of listed building enhanced
Temporary buildings removed
Existing car parking removed
Sensitive additions and alterations to existing building to create Innovation Park Management Centre
Overflow and visitors car parking

2.0 Setting to front entrance enhanced and developed

3.0 Innovation Centre – Phase 1 @ 1,900 sqm. 2 storeys
Small scale buildings to front of site to maximise impact from University Road
Smaller floor plates can be stepped to suit levels
Building to screen car parking to rear
Focal point/social areas/entrance adjacent to access
Parkland setting to front

4.0 Areas too steep to permit viable development

5.0 Innovation Centre – Phase 1 @ 1,900 sqm. 2 storeys
Design principles as 3.0

6.0 Nursery – approx 400 sqm including secure external area
Pavilion type building
Change in level to aid security
Car park and drop off area

7.0 Access road
Alignment to follow contours to minimise cut and fill

8.0 Existing Trees and Vegetation
Retained and enhanced

9.0 Amenity grassland
Upper level slopes retained
Setting of new phases to reflect main Campus buildings – maintain design concept of buildings set within grassy parkland

10.0 Inward Investment Development – Phases 2 + 3
Keynes College development line continued
Pavilion buildings to create permeability – views through from adjacent properties.Consideration of low profile building to facilitate views where practicable.
Scale and massing of adjacent building continued.
Highly visible buildings requiring a quality design response

Figure 16 Concept plan

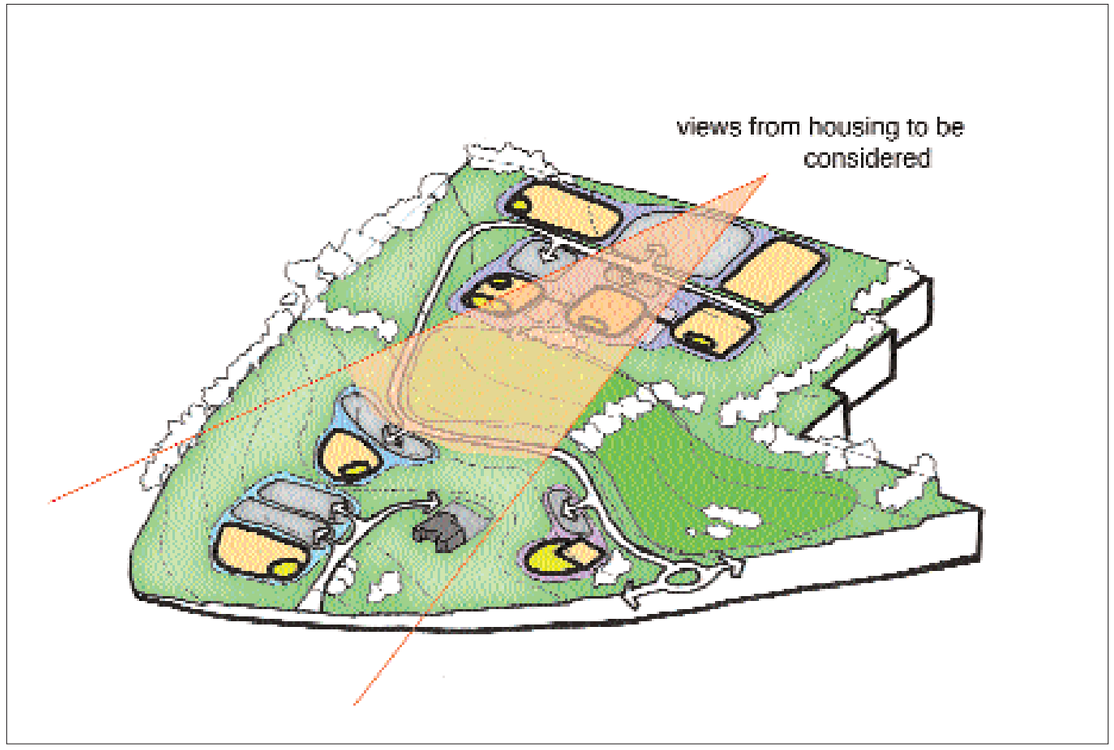


Figure 17 Concept sketch

Chapter 5: Development Requirements

5.1 The basis of the brief was established within the Angle Technology/Terence O'Rourke Report, dated January 2002 (commissioned jointly by Canterbury City Council, University of Kent, SEEDA and Kent County Council)

5.2 Demand analysis suggests a potential requirement of 19,000 sqm for knowledge-based businesses within the Canterbury city area:

- 1,900 sqm incubator – Innovation Centre
- 1,900 sqm 'UKC – special relationship' / expansion of incubator units.
- 5,700 sqm incubator graduates – 3 buildings of approx.1,900 sqm each
- 4,750 sqm relocations from within area
- 4,750 sqm inward investors

Half of the demand was considered to be dependent upon businesses being located at, or very near, University of Kent.

5.3 The detailed brief and schedule of accommodation for the Innovation Centre, now referred to as the Innovation Park, is contained within Appendix F.

5.4 Using a Kent County Council rule of thumb (3,500 sqm office / research park development = 1 ha employment land), demand for 19,000 sqm of floorspace requires a constraint-free site of at least 5.4 ha. In reality, a site larger than this, say 10 ha, would be ideal to accommodate all of the estimated knowledge-based industry demand.

5.5 The Angle Technology Report contained an alternative sites assessment of nine potential sites in Canterbury, including possible greenfield sites on the edge of the City. The sites were assessed against broad operational, planning and environmental criteria. SEEDA has subsequently commissioned a further study which assesses the economics of development on each of four preferred sites.

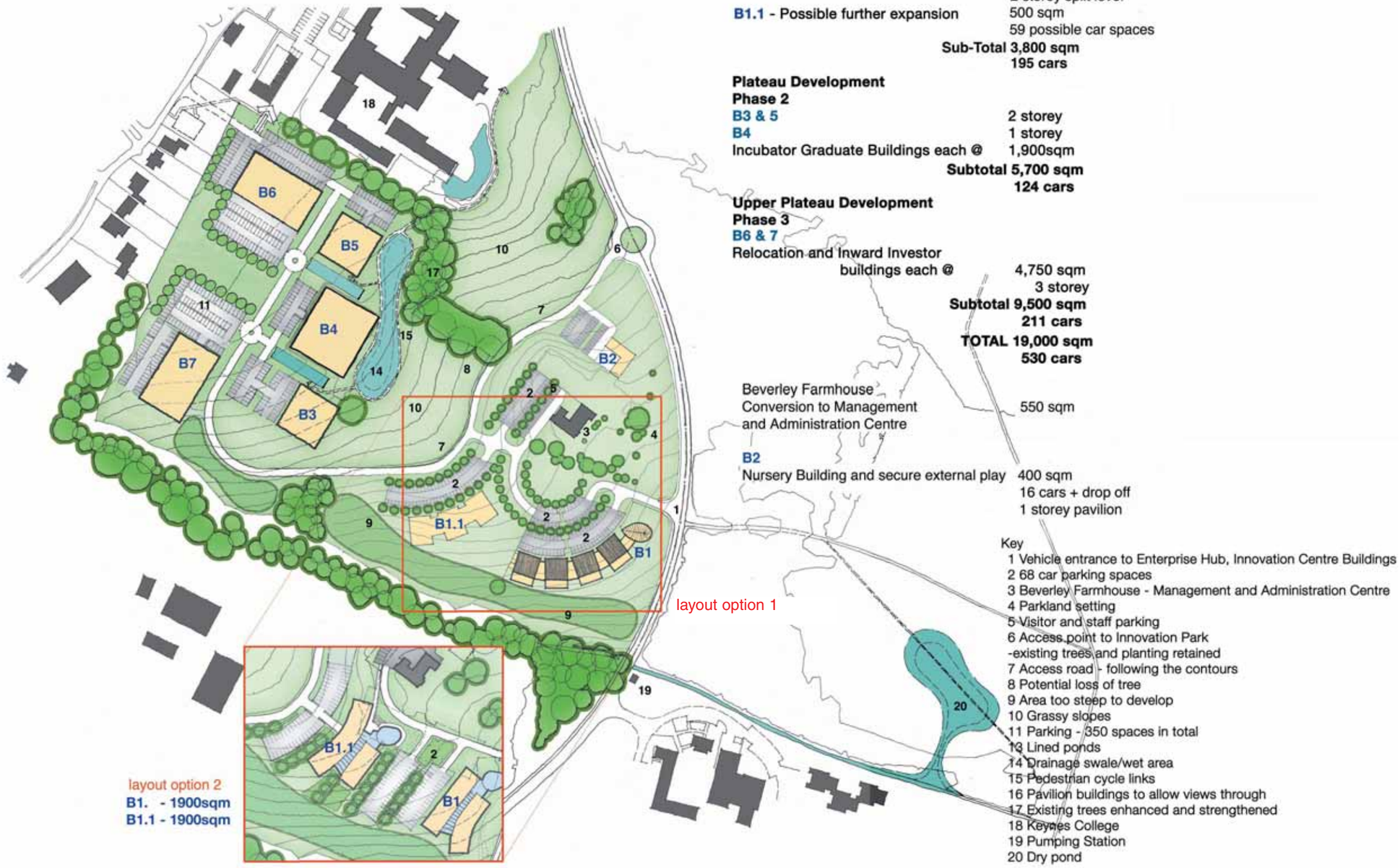
5.6 No urban sites were considered developable in the alternative sites assessment. Beverley Farm site at University of Kent fared best in the assessment, but does not necessarily provide sufficient site area to accommodate all of the 19,000 sq m floorspace demand predicted.

5.7 Phase 1 of the development seeks to fufill SEEDA's requirements for an Innovation Centre building. Requirements for the building are fully detailed within Appendix E but can be summarised as follows:

- Site area requirement of 0.5 – 0.75 ha with a further 0.25 – 0.4 ha follow on space = 0.75 – 1.2 ha
- Building floorspace requirement of 2,000 – 4,000 sqm in 2 two storey buildings (with potential for expansion by construction of new wing etc.)
- 25 – 50 units for start up businesses, together with reception, meeting and other common facilities.
- Innovation Centre to provide accommodation for 3 years, before companies move on to new, usually larger, premises.
- Option studies have been prepared which illustrate either, 2 separate buildings at 1,900 sqm each for the separate Incubator units
  or
  1 Main building at 3,300 sqm with a further 500 sqm of space as possible expansion.

5.8 Phase 2 of the development will provide the accommodation for Innovation Centre graduates. The current brief for this accommodation is not as detailed as the one provided for the Innovation Centre but the basic form and nature of the internal space created will be of a similar standard.

5.9 Proposals for the Business Innovation Park are expected to fall within Business Use Classes B1a and B1b of the Town and Country Planning (Use Classes) Order 1987, or be uses ancillary to these use classes.



Schedule of Accommodation
Phase 1
Lower Slopes Development (layout option 1)

B1 - Innovation Centre Building	3,300 sqm
	136 cars (approx 1:24)
	2 storey split level
B1.1 - Possible further expansion	500 sqm
	59 possible car spaces
Sub-Total	**3,800 sqm**
	195 cars

Plateau Development
Phase 2

B3 & 5	2 storey
B4	1 storey
Incubator Graduate Buildings each @	1,900sqm
Subtotal	**5,700 sqm**
	124 cars

Upper Plateau Development
Phase 3

B6 & 7	
Relocation and Inward Investor buildings each @	4,750 sqm
	3 storey
Subtotal	**9,500 sqm**
	211 cars
TOTAL	**19,000 sqm**
	530 cars

Beverley Farmhouse Conversion to Management and Administration Centre	550 sqm
B2 Nursery Building and secure external play	400 sqm
	16 cars + drop off
	1 storey pavilion

Key
1 Vehicle entrance to Enterprise Hub, Innovation Centre Buildings
2 68 car parking spaces
3 Beverley Farmhouse - Management and Administration Centre
4 Parkland setting
5 Visitor and staff parking
6 Access point to Innovation Park
-existing trees and planting retained
7 Access road - following the contours
8 Potential loss of tree
9 Area too steep to develop
10 Grassy slopes
11 Parking - 350 spaces in total
13 Lined ponds
14 Drainage swale/wet area
15 Pedestrian cycle links
16 Pavilion buildings to allow views through
17 Existing trees enhanced and strengthened
18 Keynes College
19 Pumping Station
20 Dry pond

Figure 18 Massing Plan

Chapter 6: Development Strategy and Design Principles

6.1 The earlier landscape assessment by Lloyd Bore established the principle of siting a landmark building on the plateau in the northern area of the site. It was suggested that the building could be similar in size and massing to the adjacent Keynes College as it would be viewed as an extension to the development along the ridge line. This study assessed the impact of providing the 19,000 sqm as a single building, with different footprints dependent on the number of storeys being provided.

6.2 It is clear from the requirements of the brief that a single phase, single building is not a likely development scenario. For the purposes of the brief the phasing of development is as follows –

Phase 1 : Two buildings - one building (B1)@ 3,300sqm and one building (B1.1) @ 500sqm (layout option 1) or: Two buildings (B1, B1.1) - @ 1,900sqm each (layout option 2). These are the Innovation Centre and 'UKC - special relationship' buildings / Incubator units

Phase 2 : Three buildings (B3, B4, B5) @ 1,900 sqm each. These are the Incubation Graduate Buildings.

Phase 3 : Two buildings (B6, B7) @ 4,750 sqm each. These are the Relocation and Inward Investor Buildings.

Building B2 - Nursery building
The master plan illustrates the inclusion of a nursery building, play area and associated car parking. However the location, design and inter - relationship of this facility with the Innovation Park and university campus as a whole will need further investigation.

Siting, landmarks and views

6.3 The siting and location of the buildings has been developed in response to the topography and orientation of the site. A simple three point strategy applies as follows:

- Small scale buildings which have a degree of flexibility in the internal arrangement, which may lend themselves to split levels and smaller floorplates have been positioned in the steeper sloping areas of the site.
- Medium-sized buildings which require larger single floor plates have been positioned in the less sloping areas just on the ridge line.
- Larger buildings with potentially single levels have been positioned on the large plateau to the north, adjacent to the existing Keynes College.

6.4 Analysis of the site has demonstrated that from the immediate proximity of University Road the upper reaches of the site are hidden from view. In order to create a landmark building as part of Phase 1 it is therefore necessary to bring the Innovation Centre, the smallest building in terms of massing and bulk, to the southern end of the site where it will have the most significant impact on the immediate vicinity of University Road.

6.5 Phase 2 will occupy the area on the line of the ridge which is less steep and more suited to larger footprint buildings. Phase 3 will occupy the highest area of the site where the principle of siting a larger, more prestigious building has previously been established.

6.6 Care and attention needs to be paid to the setting of appropriate finished internal floor levels. Excessive areas of cutting and filling should be avoided to ensure the building sits sympathetically within the site. Levels should follow the existing contours whenever possible.

6.7 The area of sloping ground below the ridge should be kept clear of development in order to preserve the landscape character of the rest of the campus. Areas of green, open ground should be preserved as a lung within the development area.

6.8 The buildings should be orientated with the main facades and pedestrian entrances to the south. This will ensure that the potential of the views from the internal spaces is realised. Care will need to be taken in the use of large areas of glazing to avoid excessive glare when the development is viewed from across the city.

6.9 When viewed from the south the buildings should be seen in a landscape setting which maintains the principle of the existing campus. This is important for both close and distant view points.

6.10 Consideration of the views from the existing properties to be incorporated within the detailed design proposals. Finished floor levels and overall building height of the central building – B4, in particular, is an important issue that requires careful study. Cross-sections through the site are included, see figures 19 and 20, which illustrate the change in level in respect to the adjacent properties. B4 is illustrated as a single storey building and is set at a finished floor level of 64.00 to suit the contours. Ground level to the rear of the properties is between 68.00 and 69.00 which, dependant on storey height, would permit city views over the building, as demonstrated in the cross sections.

Access and Car Parking

6.11 It is important that access road and car parking associated with the development do not become the most intrusive element of the scheme. Good design principles should be applied which avoid excessive areas of cutting and filling with the associated consequence of lengths of embankments or retaining walls. The existing example of the car parking area associated with Beverley Farmhouse, which has no measures to mitigate the visual impact of a large unbroken area of tarmac, should not be repeated.

6.12 The illustrative route shown for the access road to service the site has been developed to follow the contours of the site. The junction with University Road has been positioned to retain two areas of existing trees, access is created by traversing the slope and gradually climbing to the upper level plateau.

6.13 Car parking areas should be created to the northern side of the buildings in order to ensure that the buildings are not seen from the south across large areas of car parking.

Setting for the listed building – Beverley Farmhouse

6.14 It is proposed that the existing temporary buildings immediately adjacent to Beverley Farmhouse will be removed. The large expanse of tarmac parking area to the west is to be reduced and incorporated within the access to Phase 1 of the development. Such parking as is required for the use to be contained within Beverley Farmhouse should be located to the rear.

6.15 The large area of parkland garden to the south, which contains a number of trees, should be preserved and enhanced in order to improve the setting of the building when viewed from the south.

6.16 In order to ensure the long term viability of the Beverley Farmhouse as a potential management suite, training facility or accommodation block it is proposed that a potential extension could be added to the rear as shown on the illustrative layout.

Sense of place and character

6.17 The opportunity should be taken to ensure that the development projects an image of the University that reflects prestige, quality and success. The buildings can provide a greeting and a sense of arrival for both new visitors, employees and students.

6.18 The Innovation Centre building, being located in close proximity to the road, plays a particularly important role. This building has the potential to act as a 'gateway' to the site. The gateway can convey what the University is about. A gateway is closely associated with movement, travelling and journeys – and in this sense the Innovation Centre building is well positioned to serve this function. It can signal messages of status, pride, confidence, sense of place and identity. This will be the first building that the majority of visitors will see upon entering the University site so it is crucial that the building fulfills its obligations in this regard.

6.19 It is important that the level of high-quality building required to achieve these aspirations is maintained throughout the remainder of the development. It will not be sufficient purely to concentrate on the areas immediately adjacent to the road, particularly as the upper levels of the scheme become visible from the wider area.

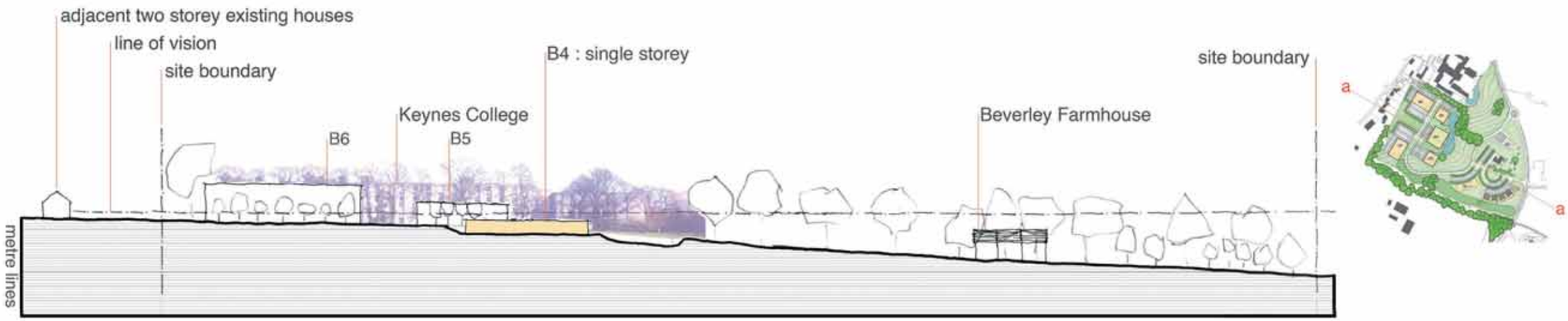
Scale and massing

6.20 The buildings located on the lower areas of the site should be no higher than two storeys as the combined effect of the rising slopes and the low vantage point has the potential to make the buildings appear larger and more dominant than might normally be thought. Consideration needs to be given to roof profile and eaves height.

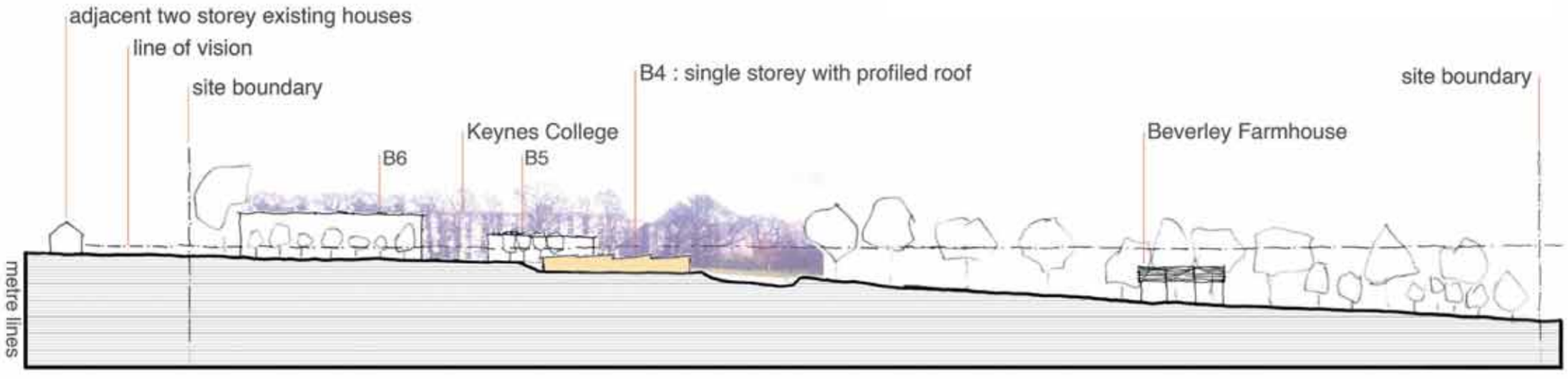
6.21 The buildings need to represent their function and present a high-tech modern image to the rest of the campus. Use of levels in a positive manner will add to the potential of the buildings.

6.22 The building should encourage inter-action between tenants and lend themselves to the creation of an exciting and innovative atmosphere. Use of double height spaces, atria, inter-connecting bridges and shared resources will be an integral part of the design. The design has to suggest an open and friendly approach whilst at the same time ensuring

Section a-a



Section a-a through site : B4 single storey



Section a-a through site : B4 single storey with profiled roof

Figure 19 Sections through the site showing impact of alternative design options for building B4 in terms of views across the site

the security and discretion which will undoubtedly be required by tenants.

Building flexibility and adaptability

6.23 Phase 1, Innovation Centre buildings will be designed to provide flexible space with units ranging from 25 sqm to 100 sqm. These need to be designed to meet the needs of small innovative enterprises. Typical floor to ceiling heights will be between 2.5 and 3.0m, with floor to floor being 4.2m to allow for structure and services zones. The fully detailed brief and schedule of accommodation is provided in Appendix E.

6.24 Phase 2, Innovation Park Graduate buildings will be configured in a similar manner to the Innovation Centre although provision of laboratory space may be a possibility. Individual letting units will range in size from 100 sqm to 450 sqm. The buildings will be highly serviced to meet the needs of modern research accommodation.

6.25 Phase 3, Relocation and Inward Investor buildings will be prestigious, bespoke units tailor-made to meet the requirements of the individual users.

Environment and sustainability

6.26 A sustainable community lives in harmony with its local environment and does not cause damage to distant environments or other communities, now or in the future. Quality of life and the interests of future generations are valued above immediate consumption and economic growth.

6.27 The central aim of sustainable development is to improve quality of life for present and future generations. This means that a broad, long-term view needs to be taken on all decisions. Broad in that environmental, social and economic considerations are regarded as having equal importance, and long-term planning and future-proofing of designs and their implications must be considered.

6.28 The development of the Innovation Park not only provides an opportunity to demonstrate best practice in building energy performance, it also presents a unique campus location that can be developed to show-case new practices and initiatives that promote the very latest thinking in energy efficiency and sustainable development.

6.29 Energy and environmental ratings have been established which are based on the information published by the Energy Efficiency Best Practice Programme for Higher Education.

6.30 Ratings for academic buildings are:

- Fossil fuels for space and water heating -150 kWh/m^2/year
- Electricity – 66 kWh/m^2/year

With regard to the overall environmental performance of the development, we propose to vet a target BREEAM rating of "Excellent".

6.31 The embodied energy contained within the building materials should be carefully considered in the selection of the materials involved in the construction of the buildings.

6.32 Specific consideration during the design of the Innovation Centre should be given to:

- Embodied energy and associated CO_2 emissions
- Ecotoxicology
- Maintenance, future repair and refurbishment
- Reuse
- Recycling potential
- Demolition
- Disposal
- Contribution to building processes, particularly thermal performance.

6.33 Full details of the environmental and sustainability issues covered are contained within the report prepared by Whitby Bird engineers included within Appendix E.

Materials and architectural context

6.34 The existing campus architecture at the University provides a context for discussion of styles for future design development. No strong over-riding style exists, rather a strength formed through the collective massing on the valley slopes which provide a backdrop to many views across the city.

6.35 Most of the buildings have a strong horizontal form which is often punctuated by strong vertical features such as stairwells, fenestration or a reflection of the internal partitioning detailing. This creates a rhythm to the elevational treatment of the architecture. This powerful architecture set on the horizon above the city serves as a familiar local landmark.

6.36 The existing campus architecture provides indicators for the use of materials and finishes for the new buildings on site. A pre-dominance of light-coloured materials such as concrete blockwork, textured concrete and stone, contributes to a notable presence on the University slopes above the city. This is particularly notable in the sunlight when the sun illuminates the south-eastern elevations. The roofs are generally flat and the line is contained behind parapets. This is generally consistent across the buildings, no roof planes are visible from the city.

6.37 Under normal circumstances the use of these materials might be seen as visually aggressive in the landscape, however, this has not been the case here because the buildings are accommodated within a maturing landscape structure of grass slopes, parkland trees and woodland belts. The materials have also weathered down with time.

6.38 The use of large areas of metal cladding and glazing would have to be very carefully handled in this context, particularly in respect to glare and illumination in the sunlight. It is likely that a horizontal emphasis would be continued with clear definition of entrances and vertical circulation.

Security and public access

6.39 The nature of the site is very open and difficult to secure. The public generally has access across the University slopes with public footpaths along the western boundary of the site. This has implications for the planning and design of the site with regard to security and continued public access. The need for security includes that of the adjacent school site and the new Innovation Park complex, as well as personal security for individuals, employees and students.

Landscape design

6.40 The details of the landscape assessment are contained within the report prepared by Lloyd Bore Landscape Architects in January 2003. In particular the principles set out within section 10 provide details of the guidelines which should be used for future development of the Innovation Park site.

6.41 One area of departure from the study is the proposed development of both southern and northern areas of the site. It is agreed that all effort should be made to maintain an area of open grassland which replicates the setting of other buildings on the campus. This is in accordance with the recommendation of the landscape architects contained within item 10.4 of the above report.

6.42 Effort should be made to retain the existing belts of mature trees which define the site. A management plan needs to be implemented to ensure their longevity. There may be scope for the introduction of occasional specimen trees to contribute to the setting of new buildings.

6.43 It is noted that development on the lower slopes is of minimal impact in the wider context. The area on the ridgeline, however, is of wider significance; it is agreed that a sensitively designed building or buildings can be accommodated on this ridgeline without being visually dominant or detracting from the setting of the city.

6.44 A 25m wide landscape buffer has been included to the northern boundary to help minimise the effect of the car park and buildings on the adjacent properties.

Surface Water Drainage

6.45 The site slopes steeply towards an existing water course on the south-west side of the site and it is proposed that the development is drained to this water course. SUDS techniques should be utilised as much as possible to minimise the run-off rate from the site.

6.46 Recent developments in sustainable drainage systems will provide a number of opportunities to slow the rate of which water enters the drainage system, for example by means of porous pavements and gravel trenches. These elements will need to be considered at the detailed design stage. There will however, remain the need to provide a formal balancing facility. The principal options for the provision of such a facility are set out below:

- A formal water body may be provided, the surface level of which rises and falls to provide water storage during rainfall events. This option may be suitable for the balancing facilities, for example feature 13 on Figure 18. They may be used in conjunction with drainage swales. In such an area the ponds will have an ornamental function and would be "policed" by the level of activity in the area.

PHASE 1

PHASE 2

PHASE 3

Figure 21 Possible Implementation Strategy : Illustrative diagrams

- Balancing can be created by shaping land to create a dished area, which normally remains dry. During periods of rain the area would fill with water to varying depths. These "dry ponds" are commonly used in amenity areas where they can be maintained as open grass land. A facility such as this may be appropriate in the southern part of the site in area 20 on Figure 18.

- An alternative to the above options could be to create a blend of the wet and dry ponds to provide a marshy area which is always damp to increase nature conservation opportunities on the site.

- An alternative to surface balancing facilities would be to create balancing facilities beneath paved areas, either by the provision of oversized concrete storage pipes, or tanks, or by storage within the construction of parking areas.

6.47 These options would need to be discussed at detailed design stage and be agreed with the City Council and Environment Agency. Particular attention should be paid to concerns raised over public health and safety issues related to surface water bodies.

6.48 The Environment Agency states that ground conditions in the area are difficult, typically with clay overlying the underlying strata. Opportunities for the use of infiltration type drainage systems are, therefore, likely to be limited but should be confirmed following a site investigation.

6.49 Grey water recycling, ie. storing rainwater runoff from roofs and using it for toilet flushing and watering of open spaces, should also be investigated. A grey water pipe network would be required, entirely separate from the potable water supply and clearly labelled, to prevent students and others drinking untreated rainwater.

Foul Drainage

6.50 Foul drainage from the development could be carried either to the existing University system in University Road discharging to the public system in St Stephen's Hill or to the public system in Whitstable Road.

6.51 The existing ground level at the lowest part of the initial phase of development, the southern corner, is approximately 45 m AOD. Existing ground levels at both of the potential receiving sewers are above 50 m AOD. A pumped system would, therefore, be required in either case, with a pumping station located near the southern corner of the site and a rising main discharging to the receiving sewer. The length of the rising main to discharge to the University system would be approximately 150 m. The length to Whitstable Road would be approximately 300 m.

6.52 In either case, capacity checks on the existing systems would have to be carried out by SWS. Before using the existing University outfall into St Stephen's Hill a capacity check would also need to be carried out of the existing University system to establish whether there is sufficient spare capacity to take the discharge from the proposed development.

6.53 It may be possible to drain later stages of development by gravity to the lower part of the existing system in University Road and thence by gravity eastwards to the public system in St Stephen's Hill.

6.54 Where levels are unfavourable, discharge from later stages of development would flow by gravity to the pumping station provided for the initial phase. Provision for increasing the capacity of the pumping station to allow for these flows should, therefore, be made in the design of the pumping station.

Figure 22 3D Aerial Sketch

Figure 23 Sketch view of entrance

Chapter 7: Planning Strategy

The planning application

7.1 Any planning application submitted for buildings associated with the new Business Innovation Park at the University of Kent Beverly Farm site will need to address the range of planning and design issues identified in this development brief. The key planning issues and design philosophy are summarised below.

7.2 Detrimental impacts on the local highway network, through the generation of additional transport trips, will need to be mitigated through the implementation of measures designed to reduce the number of existing vehicle movements on the local network, by encouraging the use of other modes of travel such as walking, cycling and public transport. The planning application would be accompanied by a Transport Assessment and Travel Plan. These documents would evaluate the impact of the development on the transport infrastructure, and illustrate mitigation measures to eliminate unacceptable impacts.

7.3 Given the site's location within an Area of High Landscape Value and the prominent views of this site from many parts of the city, any new development must be carefully designed to respect the sensitive landscape character.

7.4 Beverley Farmhouse is a grade II listed building and it is important that its setting is protected. Development proposals should not only retain the Beverley Farmhouse but also enhance the setting of this historic building.

7.5 Although no evidence has been found of any significant ecological interest on this site, any future planning application for new development should, through its design and layout, take the opportunity to improve and enhance the parts of the site with nature conservation interest, such as the hedgerow and mature trees along the site boundary. Further ecological surveys will be required.

7.6 A desk top assessment has concluded that the site may contain preserved archaeological remains. Development proposals must therefore take archaeology into account and demonstrate that this issue has been fully addressed.

7.7 As part of any future planning application consideration must be given to existing site conditions and any infrastructure that may be required to ensure that the new development can be adequately served in terms of surface and foul water drainage.

7.8 The siting and design of new development will need to take full account of the potential impact on the amenity of nearby residential development, possibly resulting from excessive noise, light and overlooking.

7.9 As the general public currently has access across the University slopes, the design and site layout of any new development must take into account the issues of continued public access and site security, in relation to the new Business Innovation Park, the public footpath network and the adjacent school. Consideration must be given to the security and safety of both the public and students when using these spaces.

7.10 The design and style of the new development must have considered the architectural context associated with the existing buildings on the University campus, taking account of their form, vertical features and elevation treatment. However, whilst the existing architectural context should be considered, new opportunities should also be explored with regard to innovative architecture, engineering and landscape design. Proposals will be required to address issues of sustainability, and whenever practicable make the most of opportunities to conserve energy through location, design, materials and exploration of renewable energy generation potential.

Supplementary planning guidance and the next stages

7.11 This development brief was adopted as Supplementary Planning Guidance by Canterbury City Council on 16th September 2004. This document is now an important material consideration against which all planning applications for development on this site will be considered.

7.12 Given phasing and funding considerations it is unlikely that a single planning application will be submitted for the whole Innovation Park Development. However applications for different phases of development will be expected to adhere to this Brief. Phase 1 is likely to be the first publicly funded part of the development and a planning application is anticipated in 2005.

Glossary of Key Terms and Acronyms

Terms

Business Innovation Park
The Business Innovation Park at the University of Kent Park will consist of a mixture of multi-let Innovation Centre, Graduate and Inward Investor Buildings together with the existing Beverley Farmhouse building.

Development Brief
Development briefs inform developers and other interested parties of the constraints and opportunities presented by a site, and the type of development expected or encouraged by local planning policies.

Enterprise Hub
SEEDA's Enterprise Hubs have a particular role in facilitating the transfer of technology and know-how from the region's universities and research institutes. They are a focus for cluster development in leading edge products and technologies, and are increasingly attracting investment by high tech companies into the region. The Canterbury Enterprise Hub will be located at the University of Kent Business Innovation Park.

Graduate Buildings
A Graduate Building provides follow on accommodation for businesses that have out grown the Innovation Centre. Accommodation is arranged in larger suites, over a 100 sqm and can be self-contained without the need for shared facilities. The type of space can vary according to business requirements i.e. standard office space, research labs, electronic assembly or other specialisms according to demand.

Incubator
An incubator is designed to provide a supportive and nurturing environment to start-up businesses through the provision of suitable premises, support services, facilities and mentoring.

Innovation Centre Buildings
An Innovation Centre is typically a 2-storey building of 2,000 and 4,000 sqm containing between 25 and 50 units of up to 100 sqm for start up businesses, together with reception, meeting rooms and other common facilities. The tenant businesses occupy the premises on short term licences paying a combined rent and service charge. After a maximum of 3 years they are normally expected to move out of the Centre to new, usually larger, follow on premises (graduate buildings).

Local Plan
The local plan provides the planning framework against which planning applications are considered and sets out the local planning authority's policies and proposals for the development and use of land it its area.

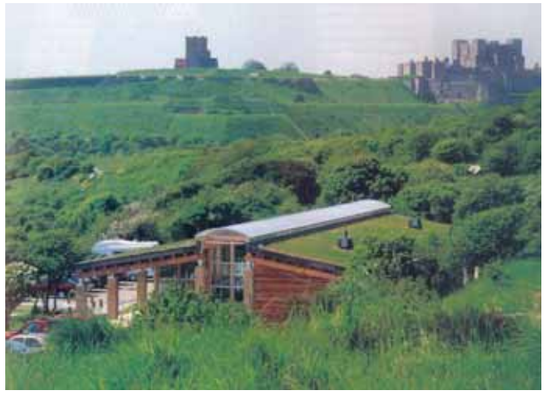
Relocation and Inward Investor Buildings
Buildings within this category are likely to be of a commercial standard commensurate with a Corporate Headquarters in respect to the office/research and development accommodation. Size of unit will vary according to the interest generated by the location.

Structure Plan
The structure plan provides the broad strategic policy framework for the county within which local plans are prepared.

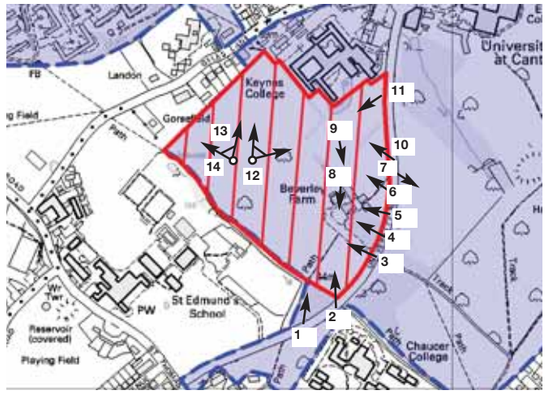
Supplementary Planning Guidance
Planning guidance to supplement the policies and proposals of the local plan, which is generally too detailed to be included in the local plan. SPG is a material consideration in the determination of planning applications and the weight accorded to it increases where it has been subject to public consultation and has been the subject of a Council resolution.

Acronyms

AHLV	Area of High Landscape Value
AOD	Above Ordnance Datum
BREEAM	Building Research Establishment Environmental Assessment Method
DEFRA	Department for Food Environment and Rural Affairs
KWh	Kilowatt hour
PPG	Planning Policy Guidance
RPG	Regional Planning Guidance
SEEDA	South East England Development Agency
SPG	Supplementary Planning Guidance
SUDS	Sustainable Urban Drainage System
SWS	Southern Water Services
UKC	University of Kent at Canterbury



Illustrations of possible building types which may be adopted at detailed design stage.



Site photographs – Viewpoint key

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