



THE UNIVERSITY *of York*

Heslington East Campus - Design Brief Including Master Plan

September 2008



Heslington East Campus

Master Plan and Strategic Design Brief

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Foreword

The principle of the development of land to the east of Heslington Village as a university campus was established by the Secretary of State's grant of outline planning consent in June 2007. A number of plans approved as part of that outline consent show how the development of the site is to take place.

Plans C (i) and C (ii) (pages 7 and 8) show the areas proposed for development plus maximum densities and building heights. These plans were prepared to provide a context for the assessment of the proposals through an Environmental Impact Assessment. The case made to the Inspector at the inquiry, and accepted by the Secretary of State, was that the development of the master planning process was an iterative one, and that the requirement for the preparation of a design brief would secure a coherent development across the site. A planning condition attached to the outline planning consent formalised this requirement.

This document therefore represents the further development of the principles set out in those plans. The Master Plan will set the context for the detailed design work that lies ahead in developing the site over a period of up to 20 years. It takes as its starting point the constraints shown in Plans C (i) and C (ii), and develops these in a coherent way to demonstrate how the campus will evolve.

The cluster concept, and the integration of different but complementary activities, is the fundamental building block for the Heslington East master plan. This document develops the design with groupings of clusters, setting up a series of sequential experiences through the site. The master plan idea proposes that each cluster has its own architectural character, so as not to result in a monolithic relentless experience.

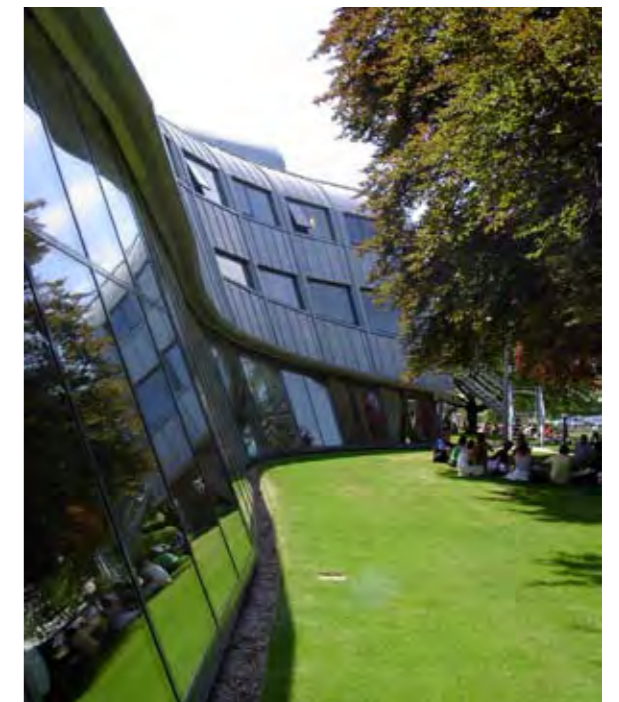
It is anticipated therefore that this Master Plan and design brief will be the principle document which provides guidance on the development of the campus and its clusters over the next 20 years. The Secretary of State acknowledged, in her wording of the planning condition, that the document could be revised subject to the written approval of the City of York Council. The document will be supplemented as subsequent clusters are designed.



University of Sunderland,
St Peter's Campus, BDP



Glasgow Caledonian University,
The Saltire Centre, BDP



University of Cambridge,
Faculty of Education, BDP

Introduction

The University of York was established in the early 1960s on a 63-hectare site on the southeast edge of York. The University is highly regarded and consistently ranked within the top UK and world universities. Its success has led to a continued programme of expansion, particularly over the past ten years. The University has now reached the capacity of the existing campus as defined by the development density allowed by the local authority, and the University needs to expand onto a new site if it is to continue to grow and maintain its current high standing. Within the original plans for the University it had always been planned that future expansion would be onto a site close by the existing campus and primarily to the east of Heslington village.

An outline planning application was submitted in April 2004 and the City Council was minded to grant approval to it. The application was called in for a public inquiry that concluded in December 2006. The Secretary of State has approved the Development through her letter of 27th June 2007. A series of planning conditions were attached to this permission.

This Master Plan and Strategic Design Brief has been prepared to provide the overall structure and high-level design framework for the planned expansion onto Heslington East. Initial master planning work was undertaken for the submission of the outline planning application in April 2004 and has now been developed further to provide the more detailed Master Plan presented here. A key purpose of the Master Plan is to allow the University to establish the character of the site as a whole at the start of a long-term development which will then be played out via a series of development areas to ensure a degree of architectural consistency and academic purpose for the foreseeable future. This document also constitutes the Design Brief that is required to be submitted to the City Council to satisfy one of the planning conditions.

The document incorporates a number of different inputs. It reflects key themes and principles that have guided the University's development since its inception in 1962, which, in some cases, have been updated to reflect the developing mission and context of higher education. This changing context has also required the addition of some new principles. It is based on the Outline Planning Application and the subsequent consent that has been granted with the associated planning conditions and legal agreement, all of which constrain the development.

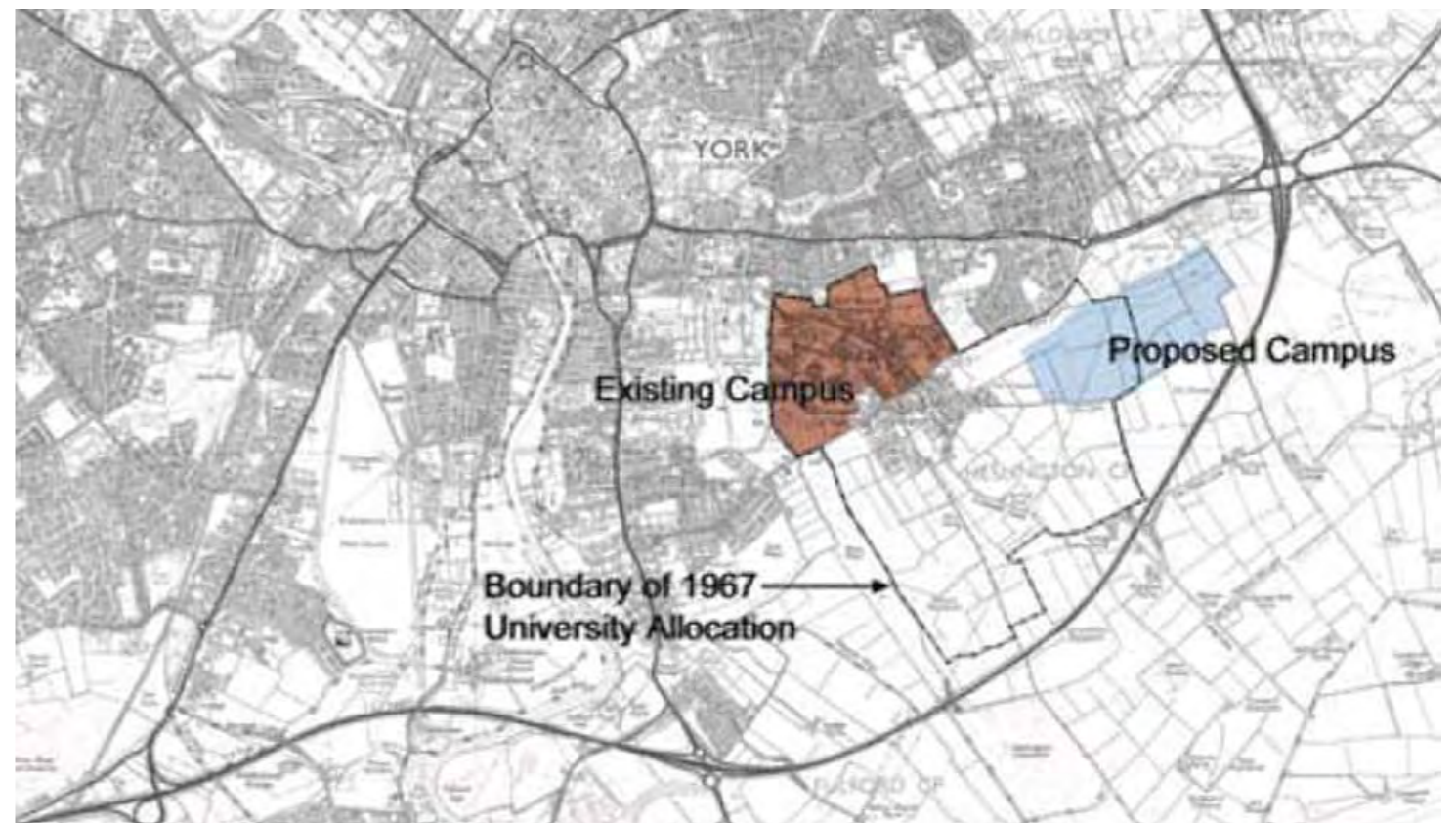
This Master Plan and Strategic Design Brief has eleven sections. In turn they:

- Identify the guiding principles which underpin the Master Plan
- Identify the planning context and the aspects of the outline application with which the development must comply
- Identify and articulate four key building blocks of the Master Plan: the landscape; integration and connectivity; movement and access; and social and community use
- Identify the Cluster principle that will be adopted in the development of the site and the location and composition of Cluster 1
- Provide a framework for the progressive implementation of the Master Plan on site
- Identify key design principles that will inform the development of the site and buildings and ensure a level of design continuity throughout the whole campus.

The development of the site will be carried out over the 20 year time frame permitted by the Secretary of State's decision and so it is not possible to define its layout at this stage. Each stage of the development will be considered as a Cluster including buildings, landscape and infrastructure and a Cluster master plan will be developed for each before detailed building design work commences. These Cluster master plans will be progressively incorporated into this overall master plan as they are defined.

Each Cluster master plan will address the following:

- Uses and activities
- Massing and form
- Walking times to and around the Cluster
- The approach to the microclimate
- Connectivity with adjacent clusters and the master plan as a whole
- Views in and out
- Future expansion potential



Location Plan

A. Guiding Themes and Principles

A1 The University of York's vision, aims and values

Vision

The University will be a world leader in the generation of knowledge through fundamental and applied research, in the transmission of knowledge through teaching students from varied backgrounds and in the application of knowledge for the health, wealth and well-being of society.

Aims

In order to realise this vision, the University aims:

1. To provide an outstanding and distinctive intellectual, social and physical environment in which research, scholarship and learning may flourish, and all students and staff achieve their potential;
2. To apply the highest standards to the selection of students, considering potential as well as past achievement, and to ensure a high-quality learning experience and effective pastoral care within a collegiate context;
3. To develop its established position as one of the country's leading research universities, balanced in academic subject mix and pre-eminent in its chosen areas of research and scholarship;
4. To apply and exploit knowledge for the benefit of society as a whole and serve the needs of those outside the University who have legitimate expectations of it.

Values

The University will seek to achieve its aims and principal objectives in the context of values that include:

1. Maintaining a dynamic and flexible environment which encourages participation and openness,

creativity and innovation and change through co-operation, and is based on principles of tolerance and academic freedom;

2. Seeking to provide equal opportunities for all, regardless of gender, age, sexual orientation, physical ability, ethnicity, religion, culture or creed;

3. Acting as custodians, with others, of culture and knowledge for present and subsequent generations.

A2 Master planning principles

The master planning process started in 2002 with a consideration of the key aspects of the existing campus. The Outline Planning Application noted that:

"In order to develop the master plan for the expansion site, it was necessary to examine the principles behind the 1960s master plan which delivered the existing campus. If the wider expanded Heslington campus is to have a coherent identity overall it is essential that it is based on a series of design principles common to both Heslington West and East. These shared principles will allow a series of themes or threads to develop which will bind the two campus sites into a single fully functional University."

The themes and principles outlined below were set out in the original 1962 development plan for the University:

- A high-quality landscape setting
- A sense of informality
- A system of covered paths and informal routes
- A large lake
- A predominantly car-free environment

- with priority being given to pedestrian and cycle movements
- The integration of activities – academic, social and residential – represented in the concept and physical structure of a



The Heslington West Campus

In providing continuity with the original plan, these themes remain key organising themes/principles of the University.

Societal change along with changes in the role and expectations of higher education in the 21st century requires some modification in the expression of a number of these themes/principles as well as the need to add new ones. For example, while the integration of activities remains central to the University's culture and success, it is no longer appropriate that teaching facilities and staff offices are intermingled with students' living space, as in the early colleges, and it is therefore necessary to develop an alternative physical expression of integration.

A further example of change concerns the growing significance of interdisciplinary working

and the University's commitment to support and enhance interdisciplinary developments, including provision of physical arrangements that facilitate interdisciplinarity. Yet another is the growing awareness of the prudent use of resources and the need for sustainable development.

As a result, the following additional themes will inform the physical characteristics of Heslington East:

- The establishment of an extension to the existing Heslington West campus without compromising the University's single campus identity.
- The establishment of academic complexes as opposed to stand-alone departments
- The co-location of academic complexes with residential colleges and social facilities to form an integrated academic Cluster of buildings providing a functional equivalent of the College on the original campus
- An emphasis on knowledge transfer activities supported by knowledge based business uses embedded within the campus and in close proximity to the appropriate academic departments
- Sustainability through the triple bottom line balance of social responsibility, a neutral or beneficial impact to the environment while maintaining economic viability
- Effective and timely access to the whole site provided by an integrated transport system.

A3 University of York success factors

In addition to the physical manifestation of the above principles, there is a requirement for the Master Plan to reflect the qualitative values that have characterised the success of the University of York. These are included within the following table, with the principles in bold and their rationale noted alongside.

Community Living and Working Together	To integrate residential, research, teaching, social and leisure environments to provide a coherent and vibrant community
Knowledge Sharing	To create a built and landscape form that encourages social interaction and the exchange of ideas and information
Knowledge Transfer	To develop physical and cultural links with business activities associated with the University's academic mission and embed these within cognate academic departments
Sustainable Place	To embrace processes and materials which are resource efficient and do not unnecessarily burden the environment
Good Neighbour	To respect and be sensitive to nearby areas and activities
Visibility	To celebrate learning and define the University's place in the City of York and the Region
Public Accessibility	To create a place that can be enjoyed by the wider community
A Distinctive Place	To use good landscape and building design to promote the University's purpose and reflect its personality
A Quality Landscape	To create a high-quality landscape made up of distinctive character areas
A Secure Place	To make a clear definition between public and private spaces to ensure everyone feels safe
Contemplation	To have areas which are quiet places and courtyards that allow for quiet study and research
Easy to Move Around	To put people before traffic, to integrate uses and transport modes
High-Quality Public Realm	To create attractive streets and spaces that encourage social activities
Easy to Understand	To have landmarks and views that help people find their way around
Vitality	To have areas which are lively, and a campus which facilitates creative interaction.
Flexibility	To accommodate changes in the market, in society and in the learning environment
Variety	To provide a choice of spaces and places, uses and activities to encourage a mixed community

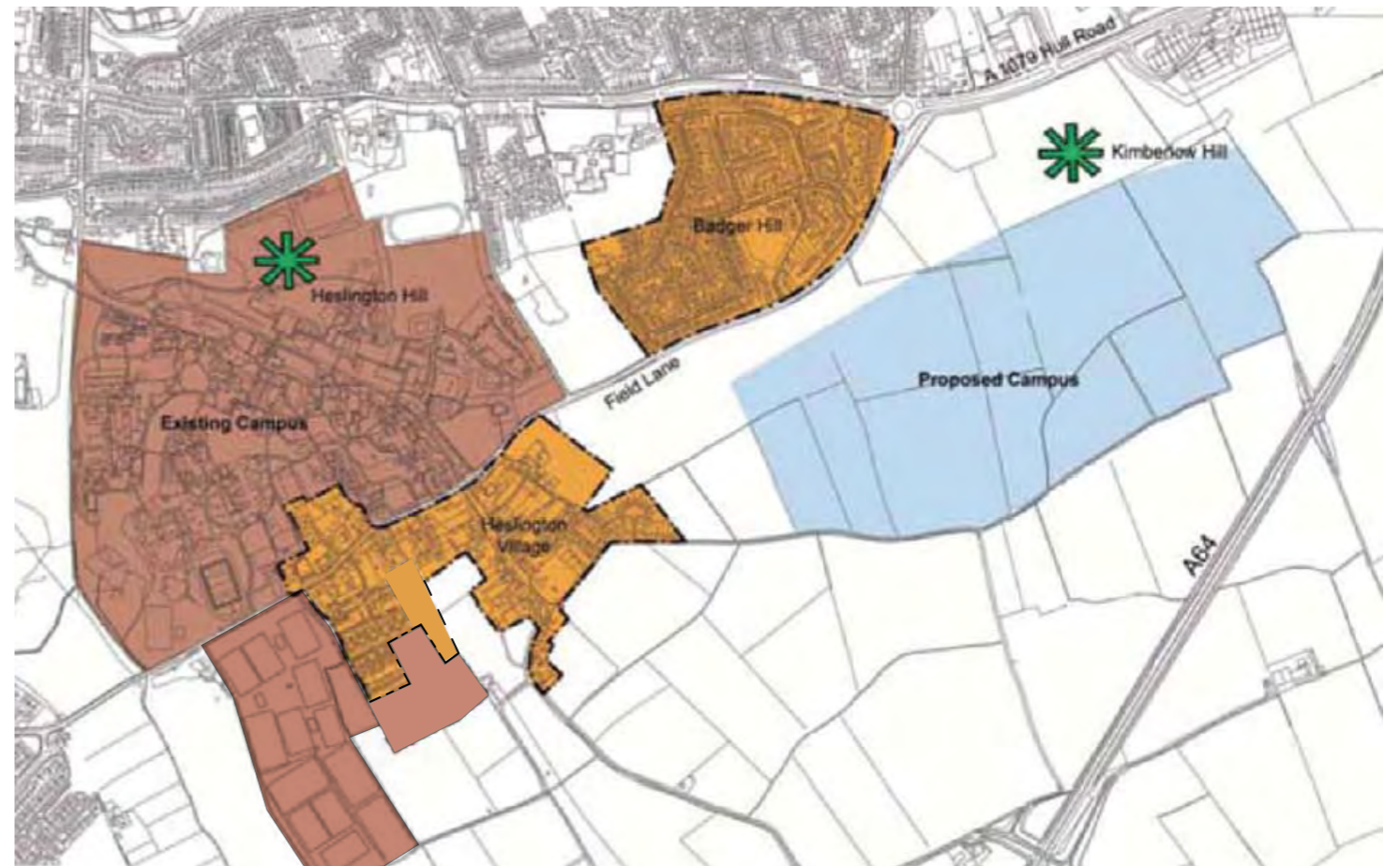
A4 City of York context

Within Section 1 of Document 8 of the Outline Planning Application (the Design Statement) there are references to the physical relationship between the City and the University. This emphasises the contrast between the urban nature of the city centre and the parkland setting of the University campus. This contrast helps define the distinctive nature of the University.

The development of the Master Plan for Heslington East seeks to emphasise this distinctiveness which, alongside the cultural and recreational activities proposed, provides a destination that is attractive and welcoming to all the people of York.

Local context plan

This plan shows the relationship of Heslington East to Heslington West and the residential areas of Heslington village and Badger Hill.



B. Planning Requirements and Other Site Constraints

B1 Mandatory requirements

In developing the Master Plan for Heslington East, there is a mandatory requirement that it complies with those aspects of the planning application that have been determined. This includes the matters set out in the following documents:

- The Development Brief adopted by the City of York in February 2004
- The submitted Outline Planning Application (OPA) of April 2004 with Supplementary Information submitted in September 2004.

Specific areas of the OPA that relate to the design development of Heslington East are:

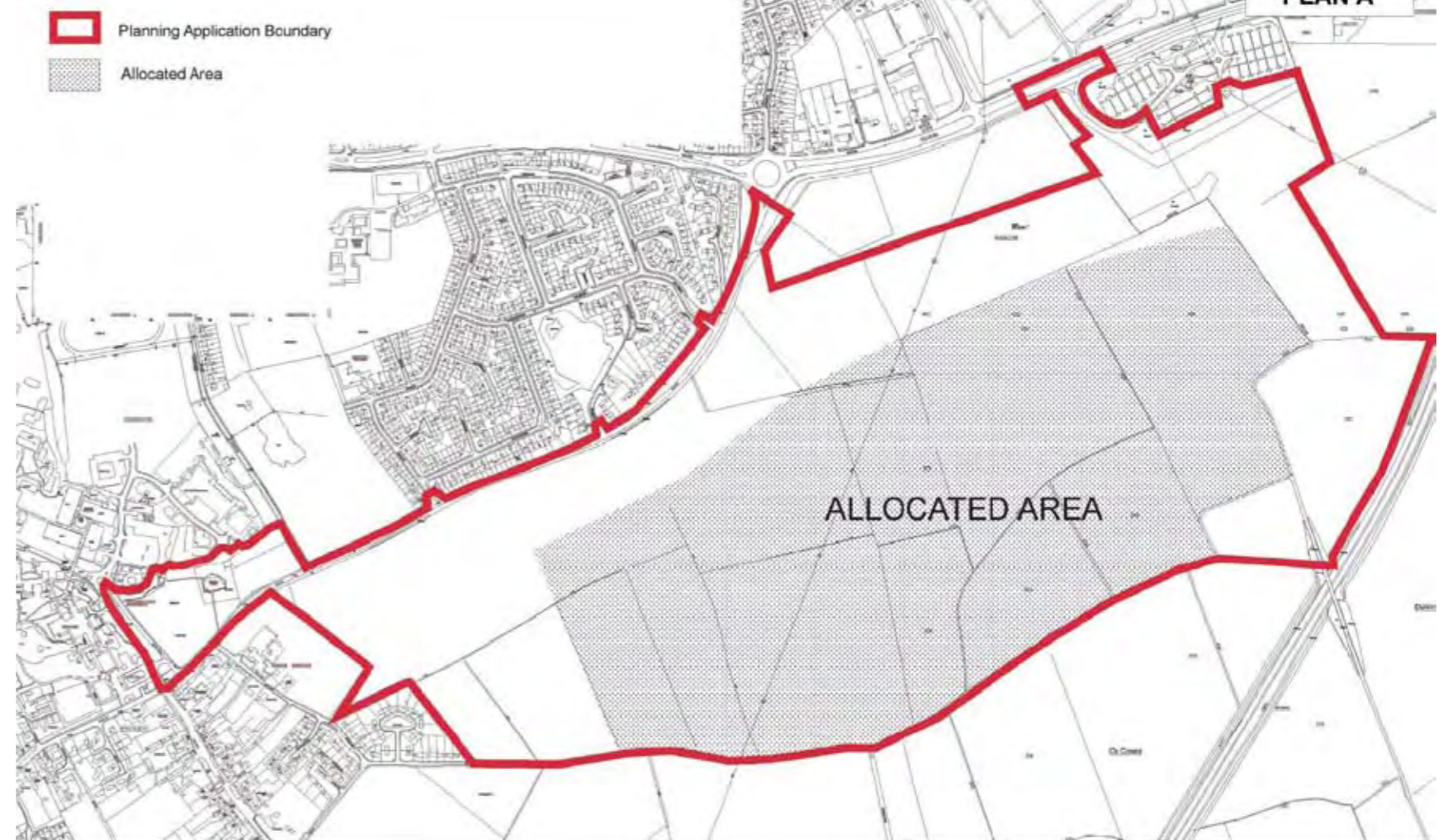
- Document 1: the Application and Plans
- Document 3: the Transport Assessment
- Document 4: the Environmental Impact Assessment
- Document 7: the Facilities Brief
- Document 8: the Design Statement and Master Plan
- Document 10: Supplementary Information.
- The Secretary of State's Decision letter of 27th June '07.

The University is required to ensure that all building development will be within the 65-hectare site allocated for development. The overall development density, including buildings, car parks and access roads, is to be no more than 23% with no more than 20% of the permitted development density being in the area between the movement spine and the northern edge of the lake.

Particular attention is drawn to the following plans that were included within Document 1 of the Outline Planning Application:

Plan A - Defines the Planning Permission Boundary and the area allocated for development.

Plan A - Defines the planning permission boundary



Project	Drawing	Drawing No.	Scale	Rev.
University of York Heslington East Campus	Planning Application Boundary Allocated Area	Fig: 3.1.1	N.T.S.	
				DR DR DR
				PV PV PV
				04.12.03 03.12.03 01.09.03
				B A

2 William Robson House
Claypath
Durham City
DH1 1SA
Tel: +44 (0)191 375 7075
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CASELLA
STANFORD

Plan C(i) - Defines the land use that has been approved.

This diagram indicates the location and density of built development and was used to assess the visual impact of the proposals in the EIA.

Features are indicative to aid comprehension of the scheme. The master plan is the design on which cluster plans are to be based.

Plan C(ii) - Sets the maximum building heights. The maximum building slab heights shown on this plan are amended from the original approved plan with the approval of the Council. It should also be noted that as part of the Secretary of State's decision, the means of access into the allocation for development have been determined.

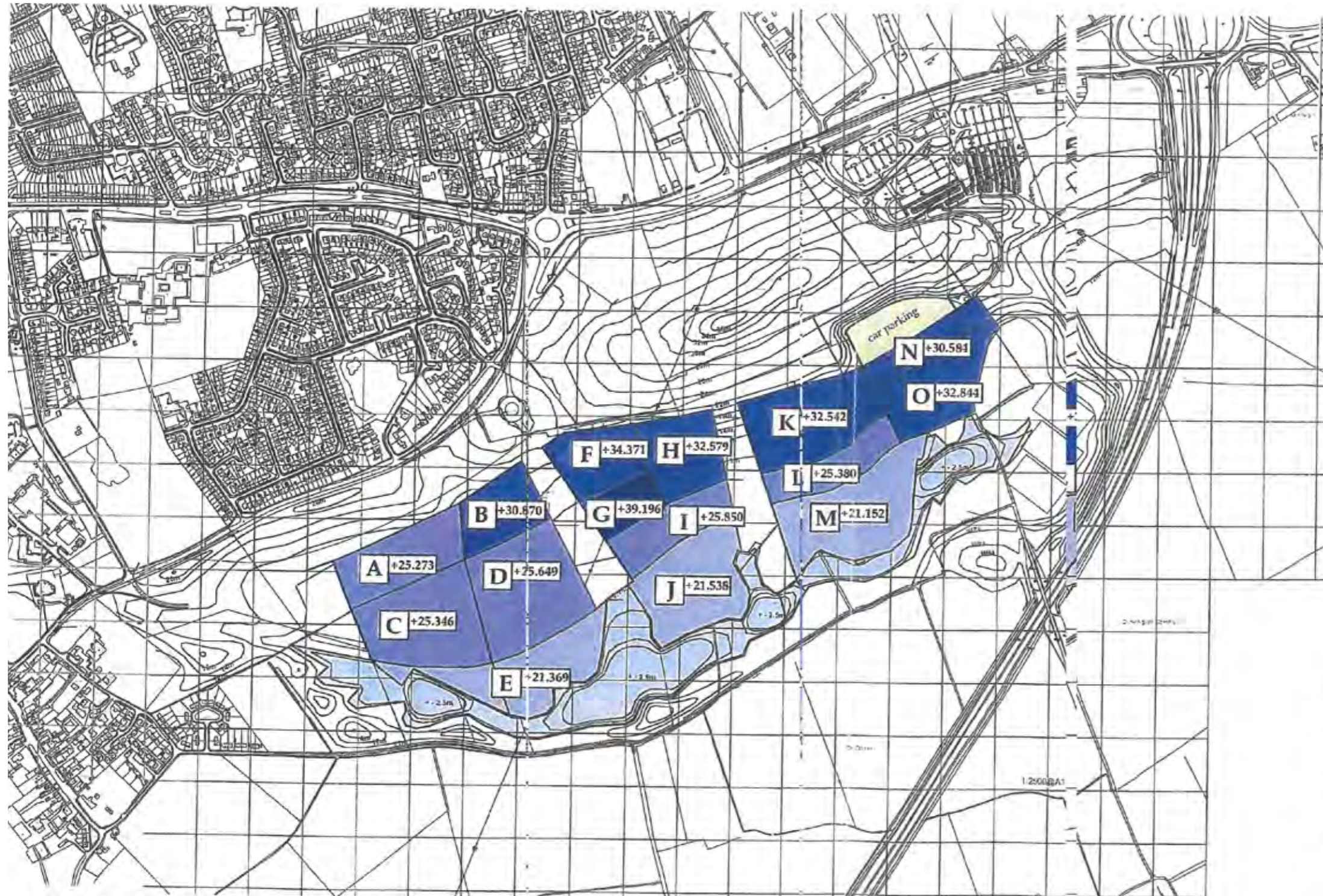
The above information provides the specific and mandatory details of the application that has been submitted and approved.

**Plan C(i) - Land use plan for the environmental impact assessment:
Development density**



- Planning Application Boundary
- Allocated Area
- Areas of Higher Density Development
Containing maximum of 80-90% of allowable built footprint including car parks and roads
- Areas of Lower Density Development
Substantially open area of mostly natural vegetation including water, marsh & reedbeds, but also containing a maximum of 10-20% of allowable built footprint
- Green Space including tree & woodland planting
- Open Space devoted substantially to organised sport
- Parking outside principal development areas
- Open Space composed substantially of open water
- Central Square Area
Substantially paved area contained by large buildings
- ↘ Principal Access Points
- Principal Pedestrian & Public Transport Spine
- ✱ Principal Landmark Buildings or Structures

Plan C(ii) REV. A - Sets the maximum building heights



KEY

maximum building slab height AOD (m)

A	13.750	H	20.279
B	15.470	I	12.500
C	12.500	J	12.500
D	12.500	K	20.242
E	12.500	L	12.950
F	19.871	M	12.500
G	12.500	N	18.584
		O	13.450

maximum height of the tallest building within each area AOD (m)

+34.371

ie: The max. slab height plus the max. building height results in the max. height above AOD for each area. This is the figure shown in the box.

B2 Qualitative issues

The Master Plan is also required to reflect some of the qualitative issues that are contained within the application. These include:

- Preservation and where possible enhancement of the views that can be seen from the site, as shown opposite in Figure 11.12 from the EIA
- The role of the landscape buffer zones in protecting the local communities of Heslington and Badger Hill.



FIGURE: 11.12

Project	Client	Drawing	Drawing No.	Scale	DR Drawn by	CD Appr'd by	01.03.04 Date	Rev. -
University of York Heslington East Campus	University of York	Landscape Mitigation Measures	Fig 11.12	N.T.S	2 William Robson House Claypath Durham City DH1 1SA			

Tel: +44 (0)191 375 7075 **CASELLA**

B3 The constraints of the site

The development also needs to recognise the context of the site, some aspects of which will act as constraints to the development.

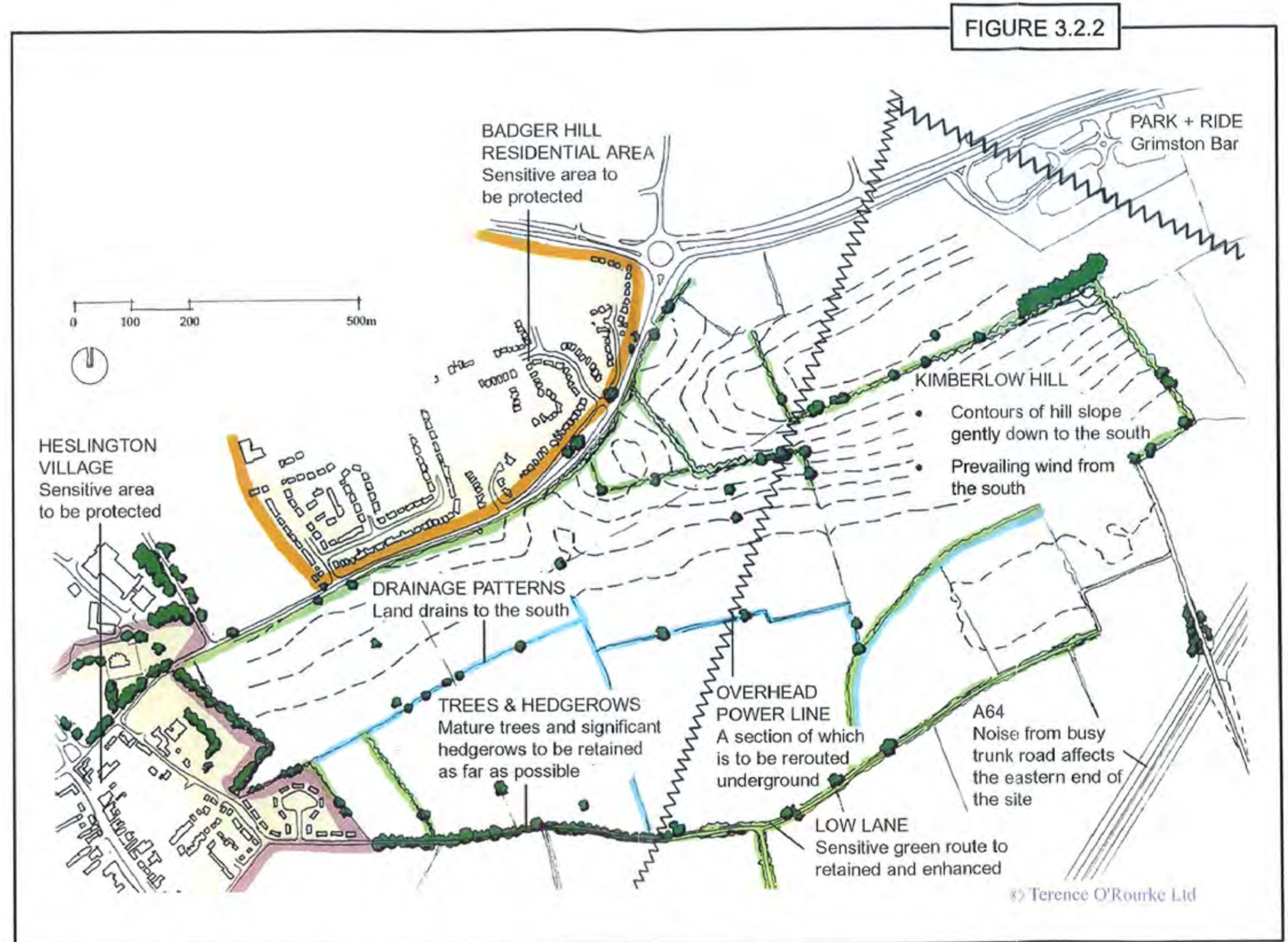
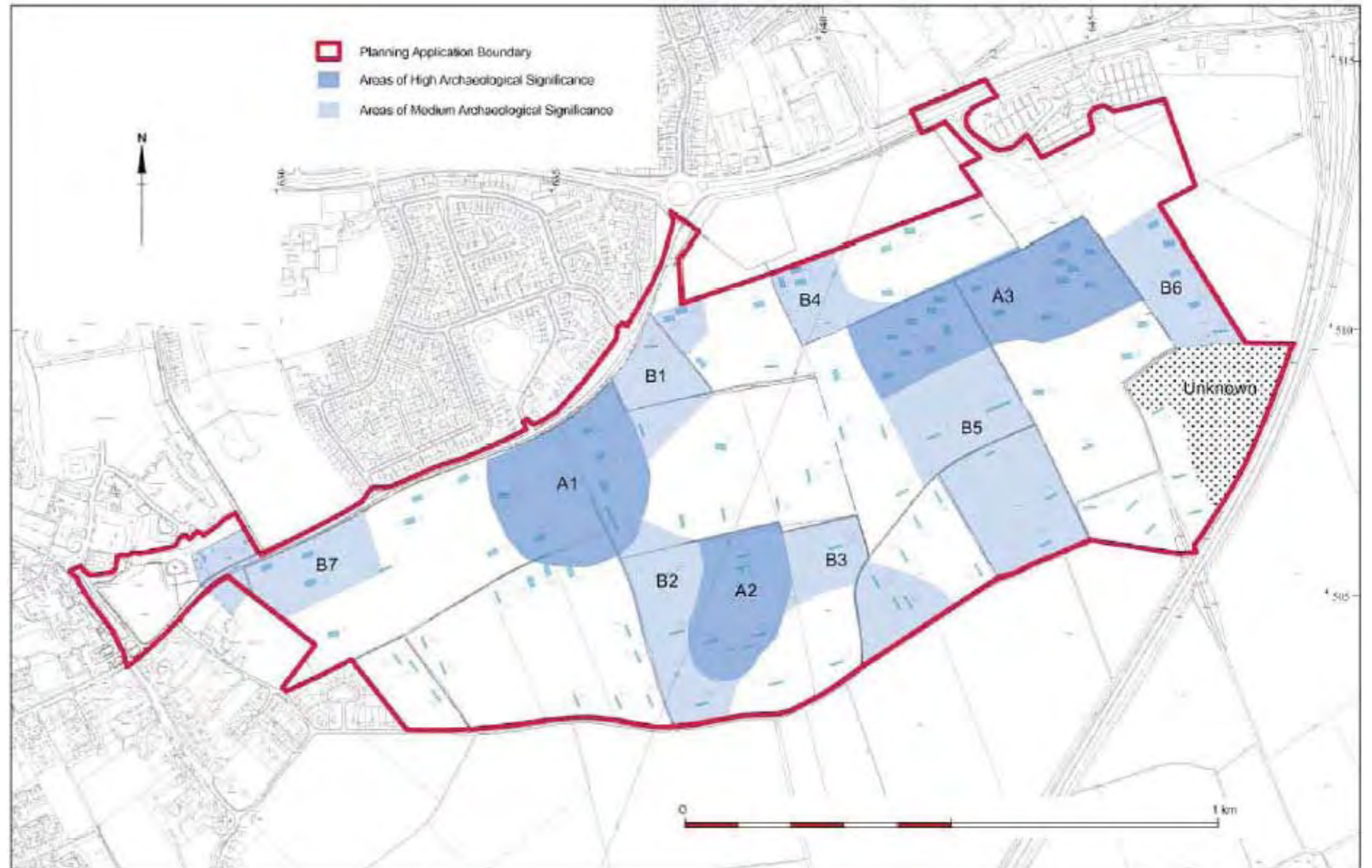


Figure 3.2.2 Site Context

B4 Archaeology

The proposed development site has a number of areas of archaeological significance. These areas are shown on the plan below. Areas of primary significance are prefixed A, secondary B. There are no areas of archaeological significance that require to be preserved and the areas identified will be cleared before development on that area commences.



C. The Four Building Blocks of the Master Plan

There are four key elements to the master plan:

- **The Landscape**
- **Connectivity and Integration**
- **Movement and Access**
- **Social and Community Use**

C1 The landscape

Heslington East is to be set in a quality landscape that includes:

- Major buffer zones between the development and the residential communities of Heslington and Badger Hill. These are to be simple parkland, with continuity of grass interspersed with a number of trees
- A landscape that flows through the development with complementary pockets of interest provided by green open spaces between buildings
- Three green vistas that bring the landscape into the development. The central vista, also referred to as the central boulevard, connects the central Field Lane entrance to the lake with the destination points being the lake side and the Cluster 1 Hub building. This central vista will reflect the landscape within the existing campus by being striking but informal complementing the buildings around it. The two outer vistas will also be informal in character and provide unimpeded views to the south across the lake. It should be noted that the original design provided for two vistas as shown within information submitted as part of the Outline Planning Application; through design development it has been

decided to add a third vista on the western side.

- A naturalistic lake with a predominantly soft and informal edge incorporating significant areas of wetlands. Where the lake meets areas of denser built development the edge is to change sympathetically and become harder. Alongside its aesthetic purpose, the lake is also a balancing regulator for drainage and provides the southern boundary to the development.
- The lake will also be available for non-motorised recreational use
- The southern edge of the landscape provides a transition into the rural area beyond Low Lane
- The eastern edge of the site provides areas for potential sports pitches
- The panoramic views from Kimberlow Hill are to be enhanced by raising it
- The woodland setting on the slopes of Kimberlow Hill provides a recreational amenity.
- A paddock to be retained in agricultural use on the south western edge.

The landscape will be developed in two phases; the first will be to the west and covers the buffer zones, the lake and its surrounding areas and Kimberlow Hill. Phase 2 is associated with the land to the east of the development and in close proximity to the A64. Further details are contained within the Landscape Master Plan.

C2 Connectivity and integration

Heslington East will be an extension to the existing campus and it is not intended that there will be duplication of major facilities between the two sites. An integrated structure will be continued on Heslington East with academic, residential and social space co-located. However, unlike Heslington West, where traditionally these uses have been contained within one building, on Heslington East they will be in separate buildings connected by the landscape. In addition, integration will be enhanced with the embedding of knowledge based business uses within appropriate academic departments. This integration of activities is referred to as an academic Cluster and is described below.

In addition to the academic clusters there will be other activities taking place throughout the campus. These include uses for sports, the community, embedded knowledge based business and separate areas for student housing. The principles of integration will apply to each of these other clusters and a mini master plan will be produced for each to demonstrate how it functions and the connections between it and the rest of the campus.

The University operates with a flat organisational structure and a culture of informality. This allows strong interdisciplinary and interdepartmental interactions. The integrated design for Heslington East will support this culture, with departments that have the potential for cross-boundary working being located in close proximity to each other, but with each maintaining its own individual identity.

The Master Plan ensures that the future expansion of these clusters and departments will be considered at the outset. This is to ensure that the future growth of the academic departments or other associated activities will optimise the opportunities for integrated working.

The embedded knowledge based businesses will demonstrate their need to be co-located with academic departments on one or more of four grounds:

- They are organisations that have direct links with University research groups
- They have a need to share specialist facilities, ideas or resources
- They are spin-out companies coming out of University research and have a need to remain connected with it
- They are spin-in companies that wish to relocate close to the University research groups because of synergies.



Buildings that form part of a Cluster will be considered together for interconnectivity with part of this connectivity being through covered pedestrian walkways. These covered ways form part of the integrated movement framework linking a number of different buildings within a Cluster. The routes will follow natural sight lines between destinations. The covered routes could be independent and self supporting or integrated into buildings. It is planned that, as was the vision of the original development plan, it should be possible to have sheltered access to most buildings that form part of a Cluster.

C3 Movement and access

Overall philosophy

The University is committed to reducing its impact proportionately on the environment. A contribution to this will be achieved by continuing the modal shift away from car use to other more sustainable modes of transport. The means of achieving this is outlined within the University's Sustainable Travel Plan.

Access to the University is by one of the following means:

- Car and motorcycle
- Public Transport
- Cycling
- Walking

Consideration has been given as to how these meet the Strategic Transport objectives and what modifications will be required to accommodate the University's expansion onto Heslington East.

Within the University's original development plan, an important design feature was the ability to reach any other part of the campus within ten minutes. Because of the increased physical size, in order to minimise the time taken to get from

any part of the extended campus to another, it will be necessary to provide a motorised transport system, as an alternative to walking or cycling. This will have its own dedicated route on Heslington East and will provide transport for staff, students and visitors between Heslington East and West including the main peripheral car parks and Grimston Bar.

Heslington East will be essentially car free. Car parking will mainly be at the periphery and people who wish, will be transported around the campus via the transit system. There will also be some disabled car access and servicing access throughout the development.

There are to be three routes of east-west movement through Heslington East:

- To the southern edge of the development is the movement spine for pedestrians, cyclists and the transit system
- Through the centre is the main pedestrian and cycle ribbon
- On the northern edge of the development area is the principal service route.

The University is committed to improving its sustainable transport provision. This will require close co-operation with the City Council to provide an integrated public transport system and safe and attractive pedestrian and cycle routes from all parts of the City.

Arrivals to the University and distribution around it

Car access

This figure shows the principal arrival routes to the University and provides an indication of their usage. Over time the University will adopt a peripheral parking strategy across Heslington East and West. This is designed to intercept the

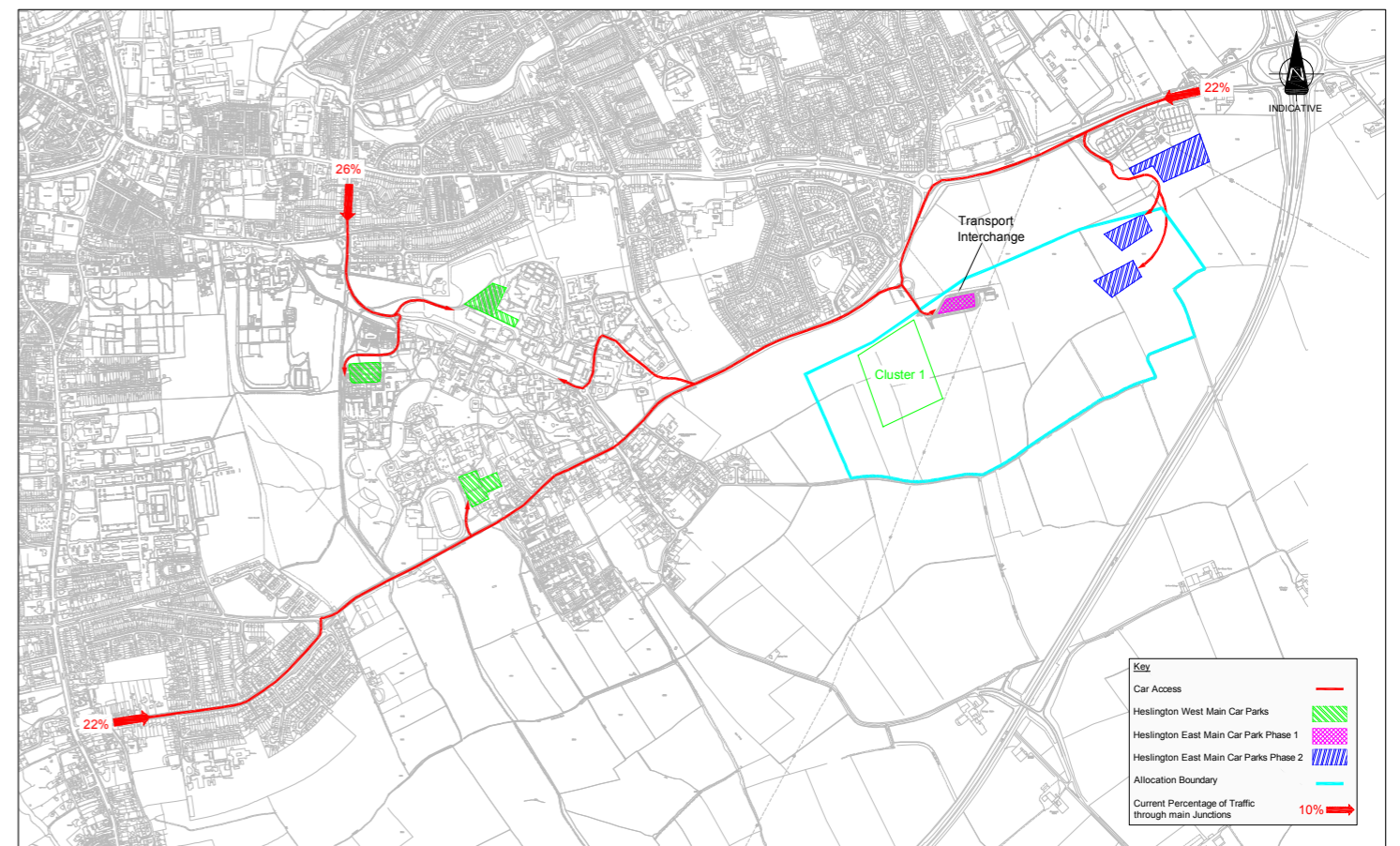
majority of car users at their first point of entry to the campus where they will park in one of the peripheral car parks. Car users will travel to their destination on foot or by the transit system. Peripheral car parking will significantly reduce University generated traffic between Heslington East and Heslington West. Car parking will be controlled by University permit with some pay and display provision.

Although the University has been very successful in proportionately reducing car use, it is anticipated that there will continue to be a significant number of car arrivals to the expanded University. As part of the Outline Planning consent, the University can introduce up to 1500 additional car parking spaces on Heslington East provided it does not

exceed the traffic congestion thresholds that have been set. The location of these additional parking spaces is prescribed:

- 500 on a new extension to the Grimston Bar Park and Ride site
- 850 on distributed car parks at the eastern end of the development within the area allocated for development
- 150 spaces accessed through the Field Lane entrance.

For the phase 1 development it has been decided that the initial additional car parking spaces will be limited to the 150 that can be accessed through the Field Lane entrance where there will be good accessibility to Cluster 1. With the



Car Access and Parking

modest increase in traffic as a consequence of this additional car parking, it will not be necessary to introduce peripheral parking for this first phase. The Grimston Bar parking will be deferred until a later stage in the development.

Transport Options

The University Transit System (UTS)

The principle objective of the service is that it fulfils the functional requirement of distributing staff, students and visitors between Heslington East and Heslington West, to minimise journeys by car and as an alternative to travel by foot or cycle. It will have a dedicated route on Heslington East, the movement spine, which

will provide an unimpeded corridor between the western access to the campus at Windmill Lane and Grimston Bar car park. Initially, for Cluster One, the movement spine will extend only as far as the central vista because no car parking at Grimston Bar is planned for phase 1. Potential for a service along Field Lane to Heslington West south campus will be investigated.

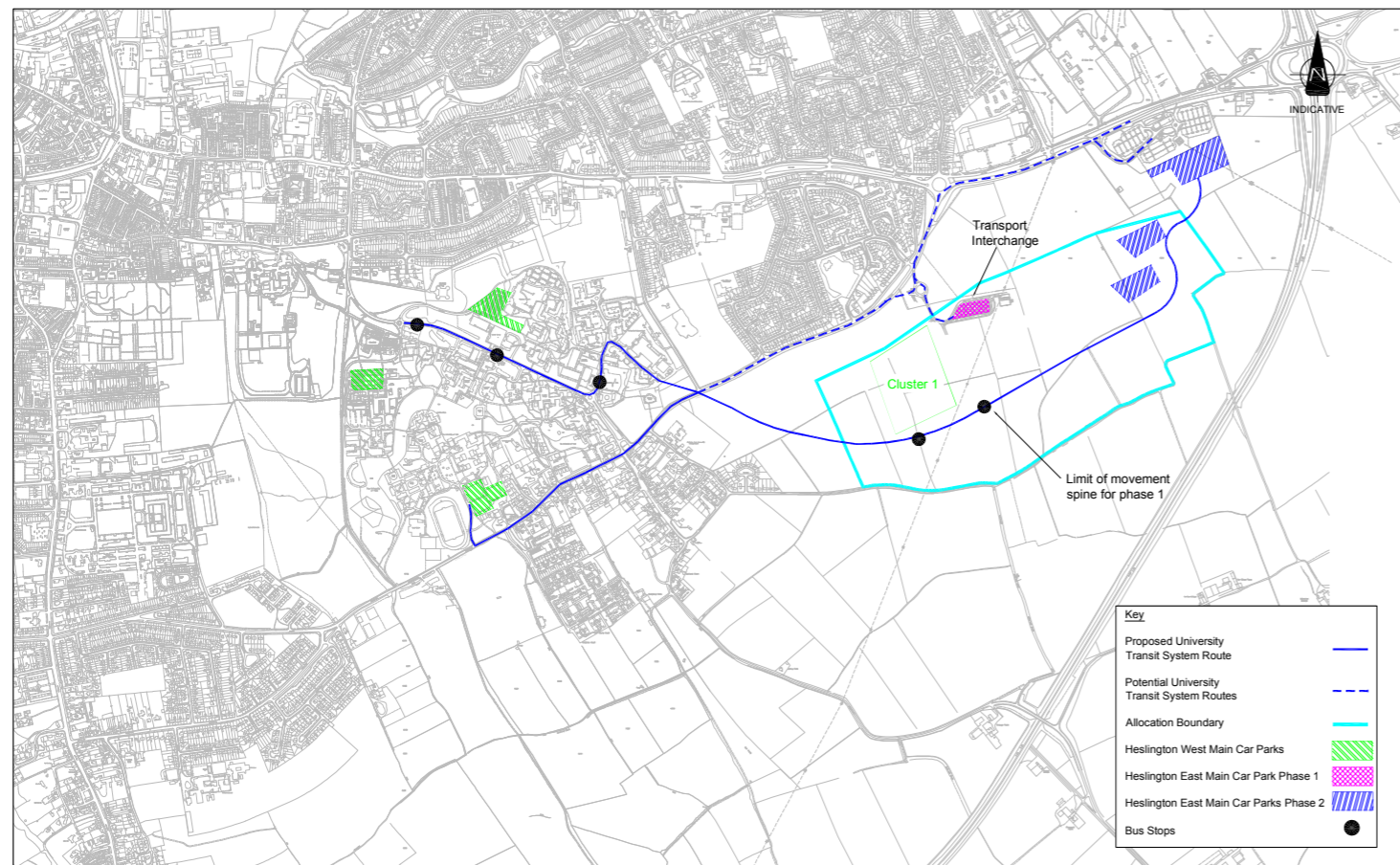
The nature of the UTS will vary over time, as its functional requirements change and with operational experience and feedback from service users. In order to project what these functional requirements are over the lifetime of the development, a study will be carried out in 2008. The results of the study will be incorporated into a revised travel plan. This will include details

of services which will be discussed with Transport Planning Officers of the City Council. The study will be based upon the University's commitment to provide a shuttle service linking Grimston Bar car park, Heslington East campus and the principal car parks on West campus, which will be high quality, frequent, low emission and disabled friendly, also free at the point of use for students and staff.

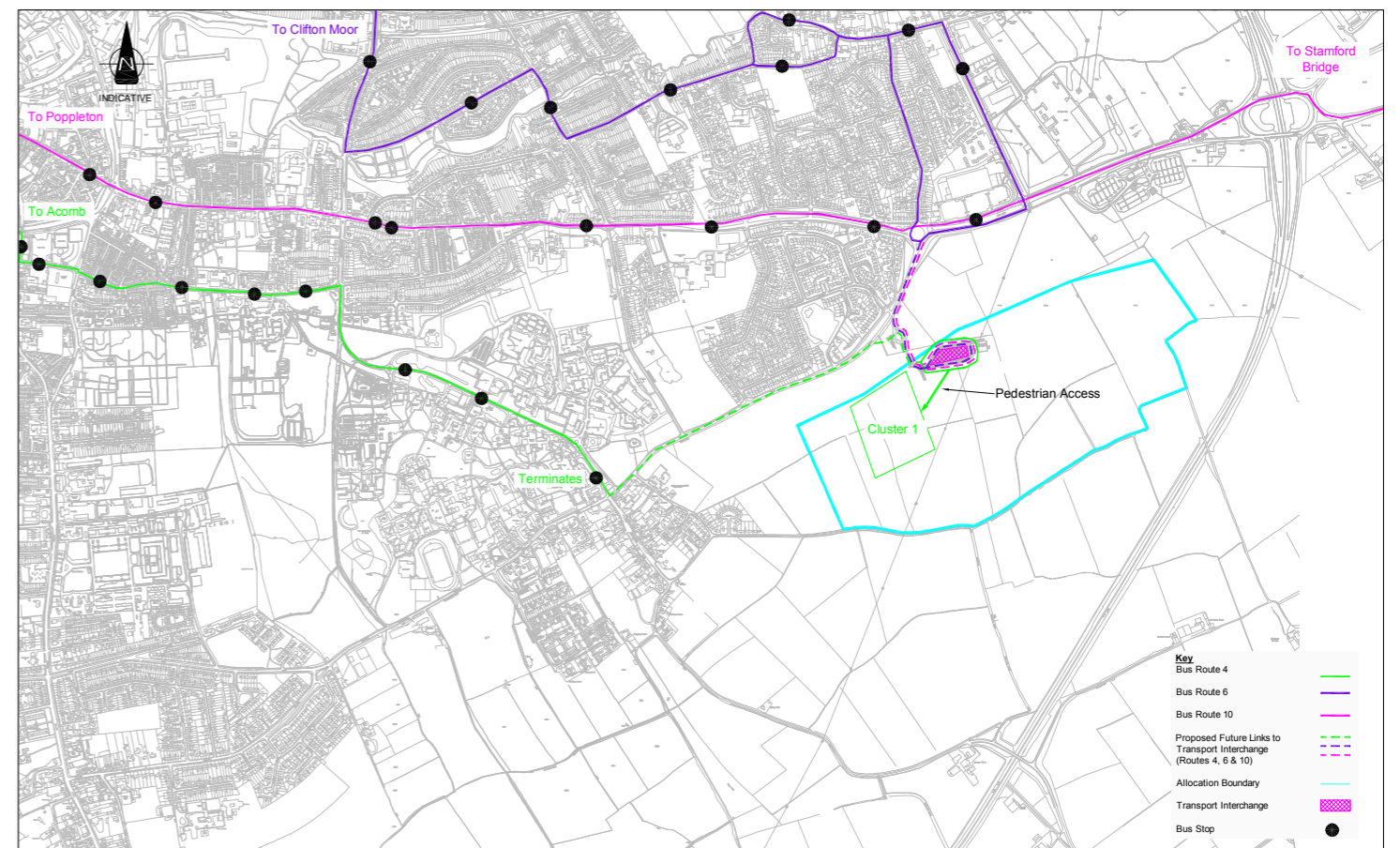
Public transport

The Field Lane entrance to Heslington East includes a transport interchange which is within easy walking distance of Cluster 1. It is proposed that this interchange will become the terminus for the frequent Number 4 bus service from the city centre, whose route will be extended along Field Lane.

Discussions are ongoing to increase the provision of other bus services to travel direct to the Heslington Campus. Coupled with concessionary fares, the provision of high quality, direct and frequent public transport links will create an attractive alternative to regular car use.



UTS and Car Parks



Bus Routes and Transport Interchange

Pedestrian access

The key pedestrian arrival routes to the University are from the surrounding residential areas. These could become more attractive by being made safer to use particularly at night. Although there should be an increase in pedestrian usage because of the University expansion, it is not anticipated that there will be significant new pedestrian arrival routes created as a consequence of the Heslington East development.

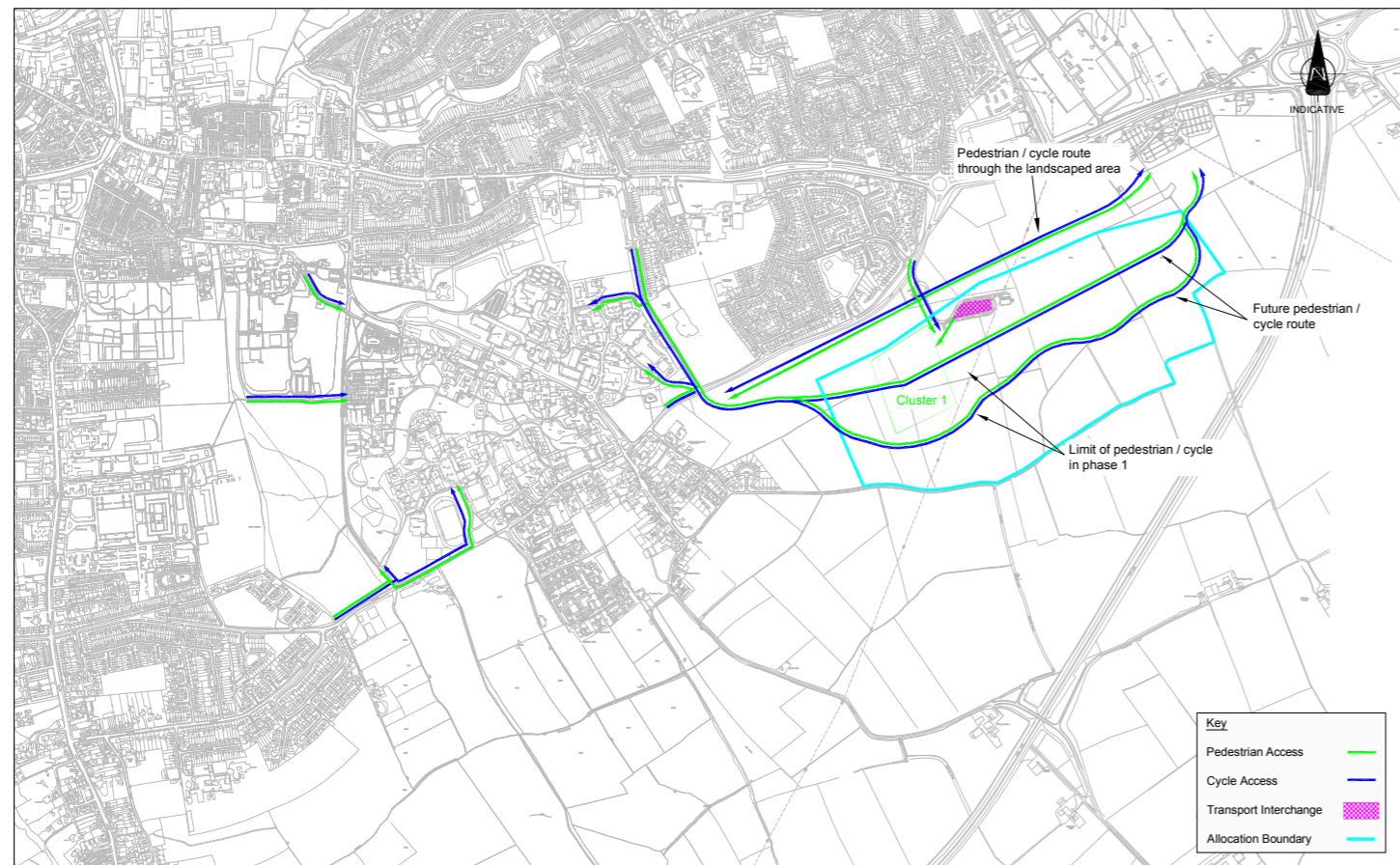
There will be increased pedestrian movements between the two parts of the Heslington campus. Improvements to the footpaths between Heslington West and East have been approved through the planning permission.

Within the Heslington East site there are a range of pedestrian routes planned, some direct and some more meandering. The more direct route between clusters will be via the pedestrian and cycle ribbon. The range of walking routes between destinations is an attractive feature of Heslington West and will be replicated on Heslington East.

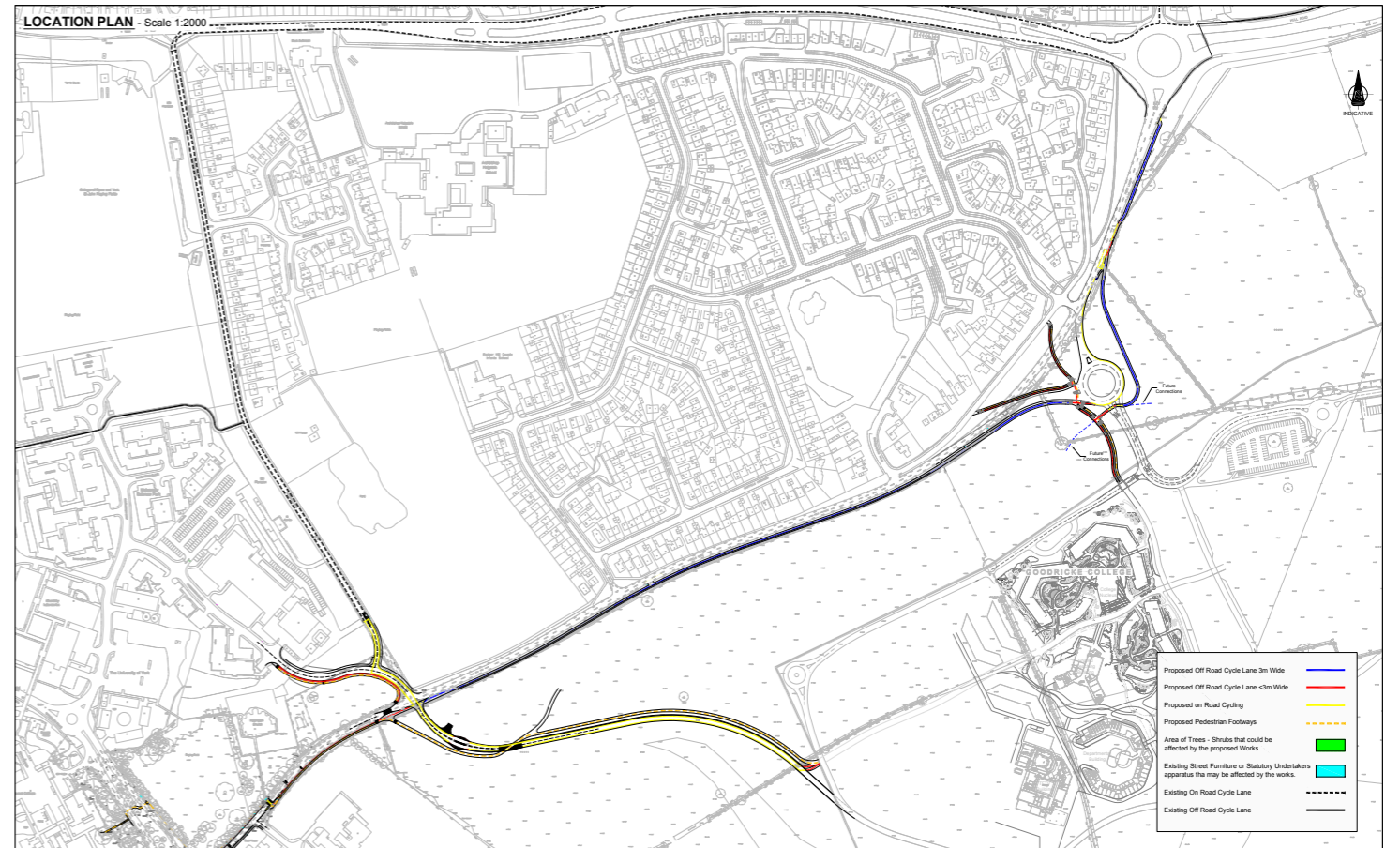
Cycle access

Cycle access to the University is principally through the City Council's recognised cycle routes. As part of ongoing liaison with the City Council, the University are looking to improve these connections so they are safer and more attractive to users (see plan below).

Cycle connections into Heslington East will be from the east and west along the movement spine and through the Field Lane central access point. From these entry points there will be a network of cycle routes around the site. The main through route will be the pedestrian and cycle ribbon that runs east to west through the centre of the development.



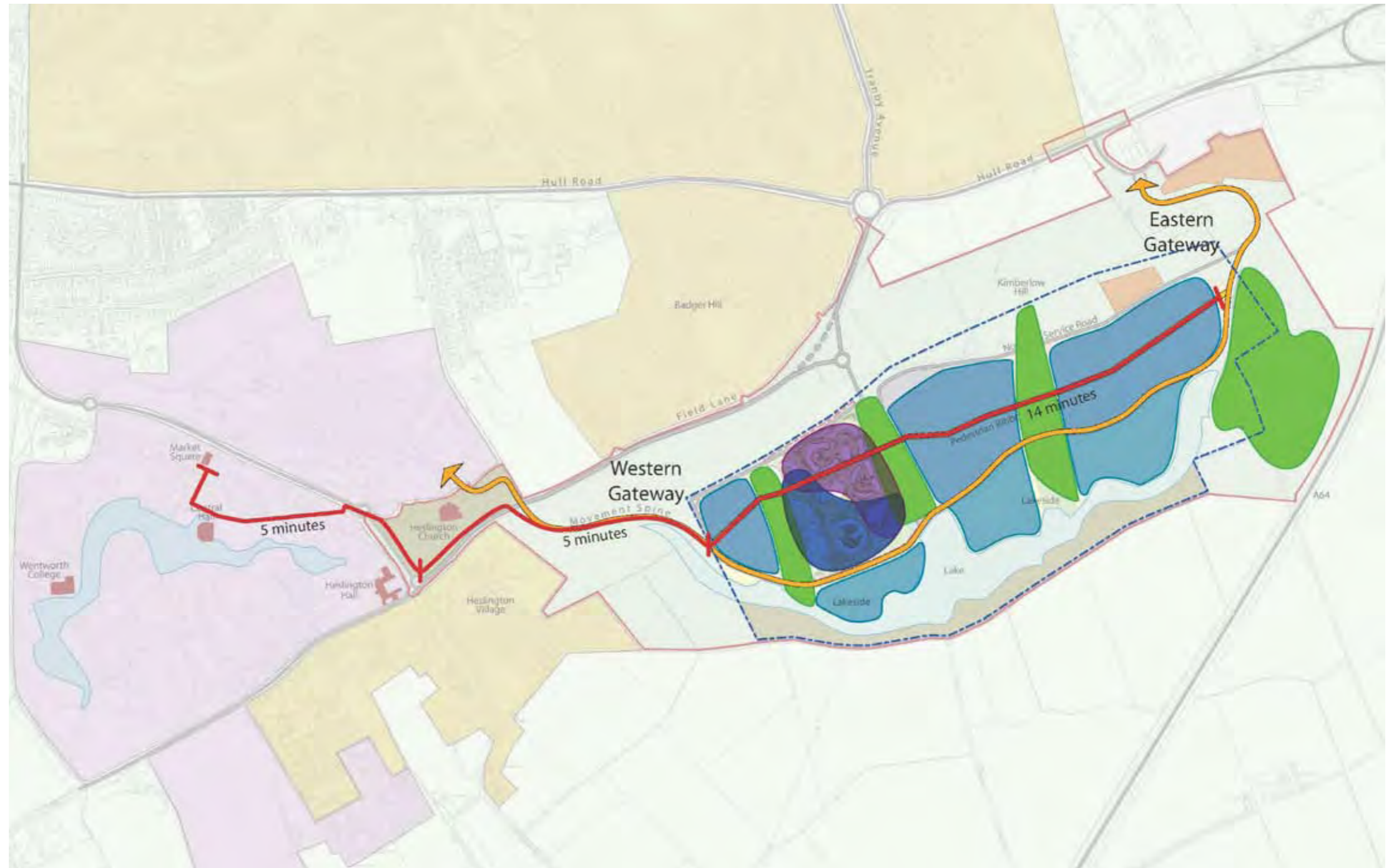
Cycle and Pedestrian Access - Overall



Existing and Proposed Cycle Routes Adjacent to the Campus

Pedestrian walking times

The layout of Heslington East needs to consider the walking times to and around it. One of the design principles of Cluster 1 is that a pedestrian should experience a 'new event' every minute – or every 80 metres for people walking at a purposeful pace. The time taken to walk across campus is also to be considered, as it has an important bearing on the transport decisions that people will take. It is estimated that it will take 5 minutes to walk from Heslington Hall to the first buildings on Heslington East, and 14 minutes to walk the length of the Heslington East site. This indicates that walking remains a viable means of getting across campus.



Walking Times Across Campus

Service access

It is proposed that service vehicles will enter development areas from a two-way service road that runs along the northern edge of the development. Designers of individual clusters of buildings will consider access for a range of services including:

- Heavy deliveries
- Waste and recycling collection
- Routine deliveries such as stationery and consumable supplies
- Access to and from the movement spine
- Start of the University year and access for offloading student possessions to residences
- Special deliveries

Utility service routing

It is proposed that the Heslington East utility services will be provided through an underground service network and will run alongside the service roads and movement spine. In designing the layout of the service roads and paths associated with an individual plot, consideration needs to be given to the location of this service network.

C4 Social and community use

Government policy notes that "Higher Education has a critical role to play in the community, both as a social and cultural centre and as a community leader.. we want to support institutions in developing and building on their community roles." Heslington East will enhance the facilities that it provides for community use through:

- Open-access sports facilities, including a swimming pool
- In the longer term the establishment of a performing arts centre
- A conference centre

- An attractive landscape and lake for recreational activities
- Recreational pedestrian and cycle routes through the landscape.

Other opportunities for social and community access that are reflected within the Master Plan include the following.

The central square

The Land Use Plan shows a large 'Central Square' at the southern edge of the central vista. This is a meeting place for a number of access routes. This area has open outlooks across the lake and should be capable of supporting outside arts, music and other types of performance. The final design of this space is dependent upon the buildings that front onto it and it is likely in the early stages that it will be an extension to the landscaping of the central vista leading down from the Field lane entrance to the lakeside.



Lakeshore Gathering Space

The lakeside

The space between the movement spine and the lake is for low-density development where the landscape will dominate and provide space for informal activity. It is envisaged that buildings in this area will be predominantly stand-alone pavilions.



Pavilion Buildings

How these master plan principles are to be applied

The Master Plan brings these four key building blocks together within the context of the overarching themes, principles and planning framework that will guide progressive development.

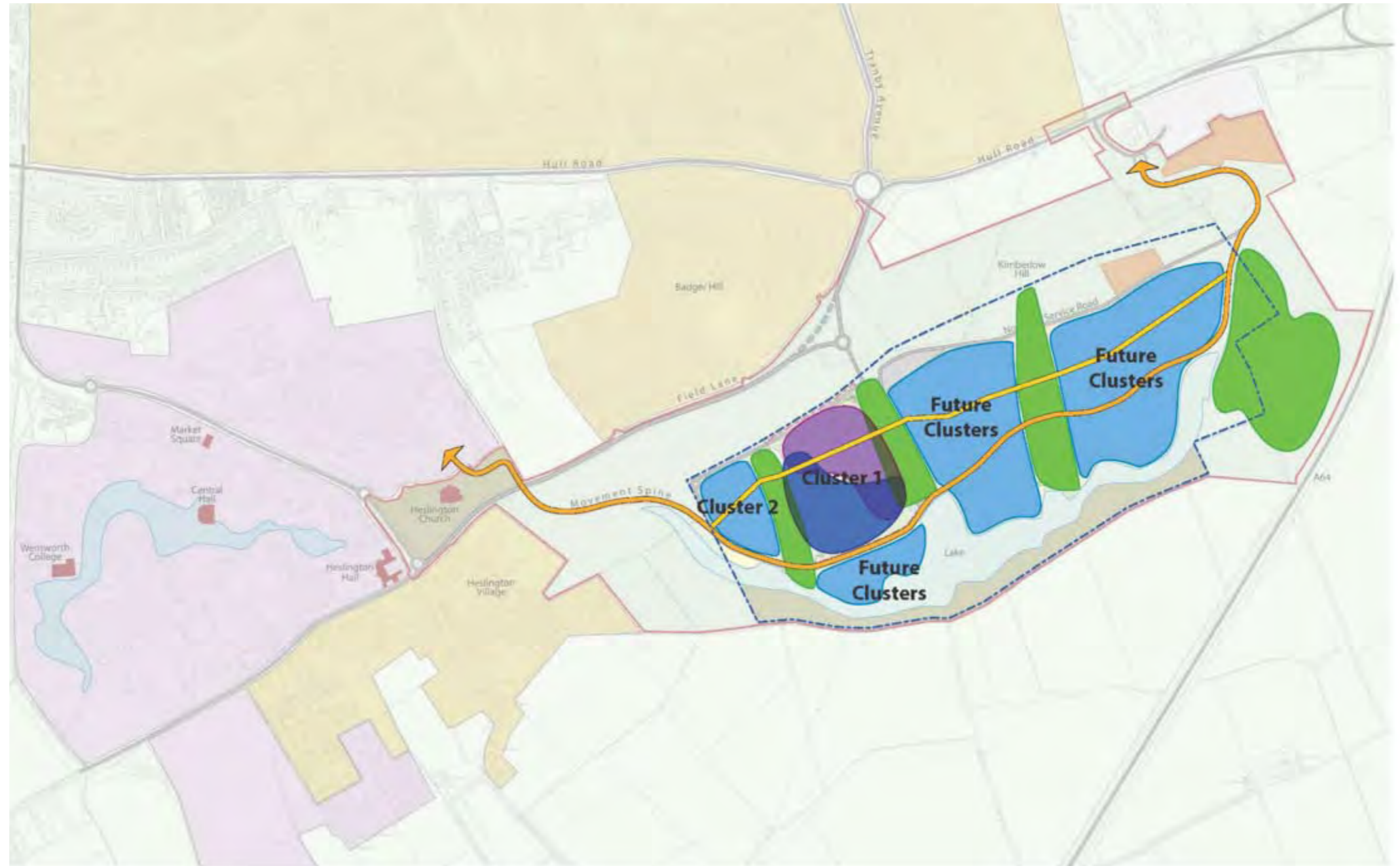
D. The Master Plan

The Master Plan divides the allocation into a series of development areas. These are designed to give latitude for the master planning of the clusters. Normally these development areas will be bounded by one or more of the elements of the landscape framework: the northern service road, the central boulevard, the green vistas, the movement spine, the lake and the main cycle and pedestrian route.

The Cluster concept and the integration of different but complementary activities is the fundamental building block for the Heslington East master plan. Each Cluster of the Master Plan embodies this idea, creating a permeable and interactive place. In this environment, students, teachers, researchers, business people, visitors and people within the community are brought together in different configurations within a shared environment. This concept forms the springing point to the 'urban design' idea and its architectural and landscape expression.

The overall grouping of clusters sets up a series of sequential experiences. This is intended to give both stimulation and reassurance as each Cluster is experienced in sequence with the next. This sequence is heightened by the interspersions of the vistas between clusters visually connecting the east-west pedestrian movements with the wider surroundings north and south.

Each Cluster has its own architectural character so as to not result in a monolithic and relentless experience. The concept is to create a patchwork quilt with clusters as variations on a theme. This is tied together through a commonality of spatial hierarchy, massing, form and building topography. The architectural approach to common use groups of buildings within each Cluster, together with the emphasis on landmark buildings and spaces will stimulate the sequential experience.



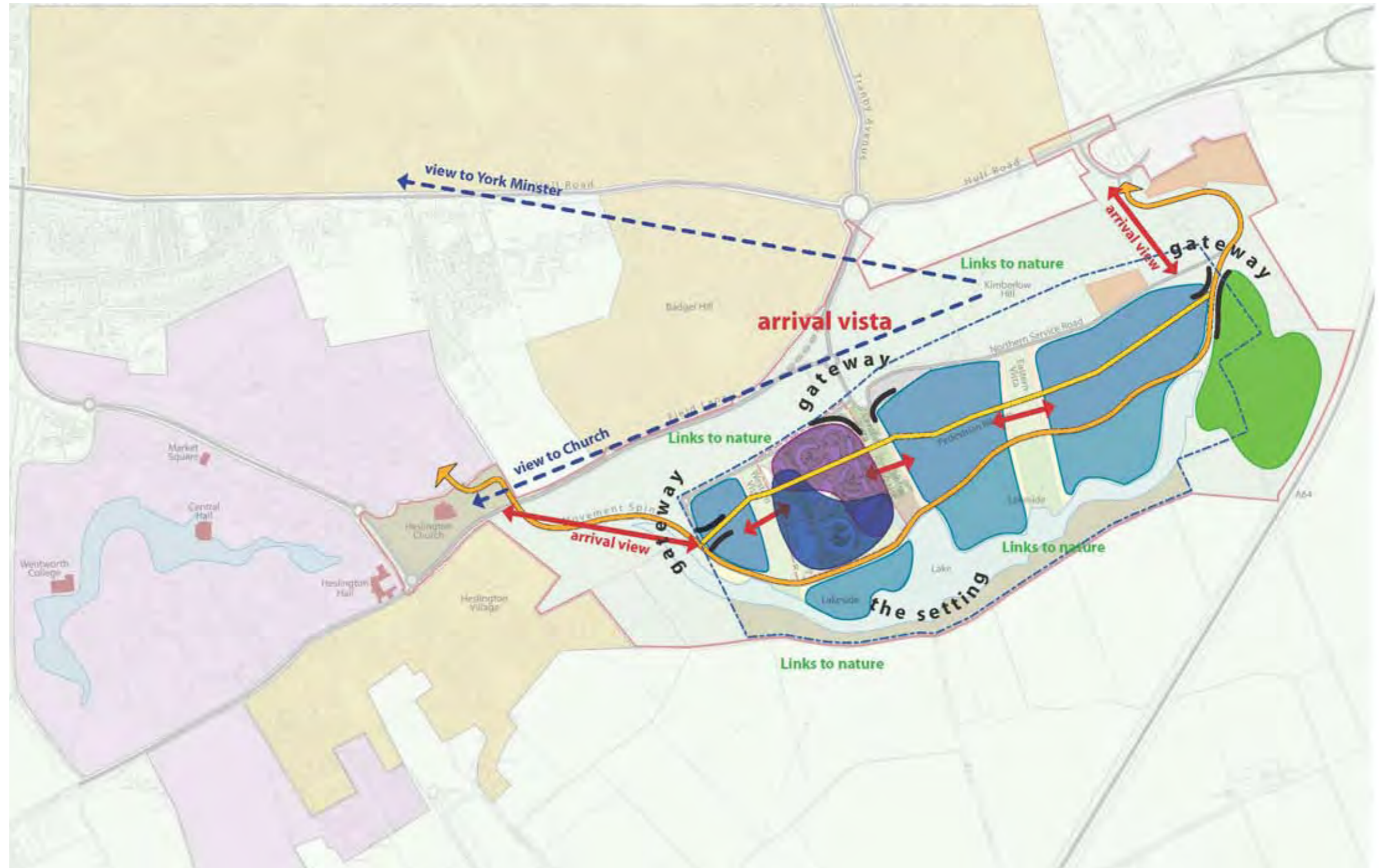
The Cluster Concept

The water is the starting point for massing and form. The massing builds up from the lakeshore and up the slope northwards to give the campus a comprehension when read as a whole from the south lakeshore, and for people passing on the A64.

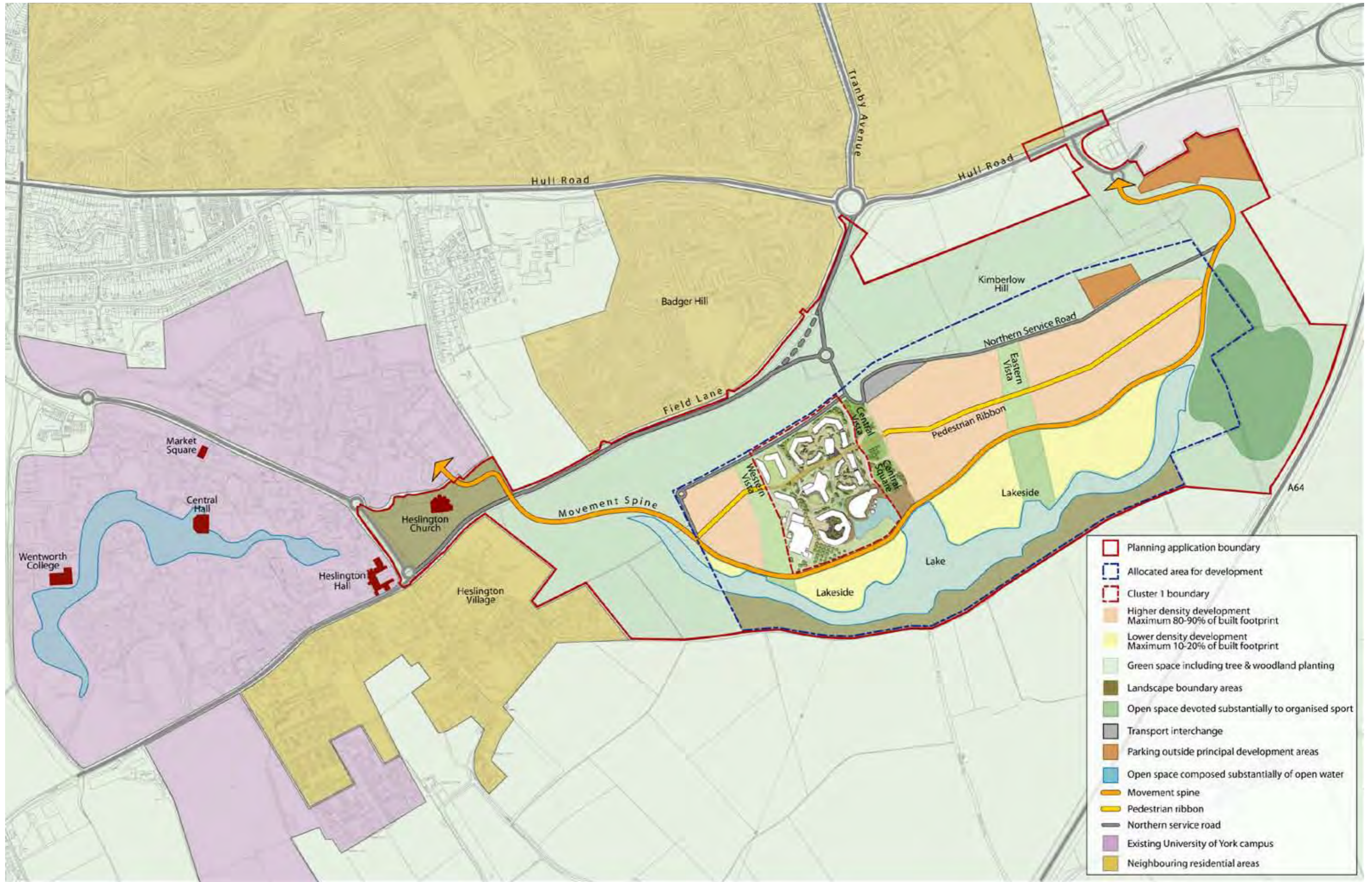
The development plots are associated with specific activities or groups of activities. These include:

- Academic Cluster 1 - a Cluster of four academic departments (Computer Science, the Law School, the Management School and Theatre, Film and Television), the Creative Technologies Centre, the York Centre for Complex Systems Analysis, the White Rose Grid Centre, a residential College and social space for members of Cluster 1
- Cluster 2 - it is likely that the second Cluster will include a second College on the western edge of the area allocated for development

As the components of further clusters are identified an assessment will be made as to the most suitable location on the site recognising the different users and their needs and the required inter-dependencies. These clusters will have their own master plans developed, which will identify the relationships between the elements of the clusters and their connectivity into the frame work described within this master plan.



Visual links



- Planning application boundary
- Allocated area for development
- Cluster 1 boundary
- Higher density development
Maximum 80-90% of built footprint
- Lower density development
Maximum 10-20% of built footprint
- Green space including tree & woodland planting
- Landscape boundary areas
- Open space devoted substantially to organised sport
- Transport interchange
- Parking outside principal development areas
- Open space composed substantially of open water
- Movement spine
- Pedestrian ribbon
- Northern service road
- Existing University of York campus
- Neighbouring residential areas

The Master Plan

Additional facilities are described within the Outline Planning Application that are not yet part of the University's core provision.

These include:

- A conference centre
- Sports and leisure facilities
- A student centre
- Performing Arts Centre

The timing of the delivery of these amenities will be subject to funding availability and discussions and agreement with third parties. These discussions will have an impact on user requirements and consequently it is not possible to identify on the master plan where they will be located at this stage.

The other non-building elements of the master plan include:

The lake – this is the southern boundary of the development. The lake's principal function is as a balancing regulator as part of the Sustainable Urban Drainage Scheme. The western edge extends to create a barrier for those who might try to take a short cut to the village. The edge of the lake shown on the master plan should be regarded as illustrative at this stage as the lake is still under design development. The final details will be submitted as a reserved matter application.

The central vista – this stretches down from the Field Lane access to the lakeside. It will be a landscaped area which will be crossed by the principal movement routes.

The central square – a meeting place for a number of access routes, with open outlooks across the lake and capable of supporting outside arts, music and other types of performance. The final design of this space is dependent upon the buildings that front onto it and it is likely in the early stages that it will be an extension to the landscaping of the central vista leading down from the Field Lane entrance to the lakeside.

The lakeside – the area at the end of the central vista beside the Cluster 1 hub building

The eastern and western vistas – two landscape corridors that split the area allocated for development

The movement spine – as well as the route for the UTS, this defines the boundary between the low density development beside the lake and the higher density development to the north. The movement spine will stop at the central vista in the first phase. It will be completed when significant parking is established at Grimston Bar.

The pedestrian ribbon – this is the principle pedestrian and cycle route, which will pass through the centre of the development. It will also finish at the central vista in the first phase.

The northern service road – the principal route for service access

The field lane transport interchange – an area where public transport will stop at the Field Lane entrance

The field lane car park – with spaces for 132 cars

Grimston bar car park – an extension to the Park and Ride site for 500 cars

Access roads – those roads leading into the allocation and including the transport interchange roads.

E. The Landscape Master Plan

The existing campus is characterised by its quality landscape, which will be replicated on Heslington East. In order to provide coherence across the whole of Heslington East a Landscape Master Plan has been developed and should be read in conjunction with this Master Plan and Strategic Design Brief.



Heslington West Campus

The Landscape Master Plan is entitled "Design Guidelines Heslington East Landscape Master Plan". This includes the identification of landscape character areas within the development site and provides guidelines on how each is to be treated.

It is proposed that the structural landscape will be developed in two phases, and

- Phase 1 will establish the lake, the structural landscaping including the raising of Kimberlow Hill and other mounding in the buffer zones; the western and central vistas and the planting of the buffer zones the areas around the lake and Kimberlow Hill.
- Phase 2 will be on the eastern side of the site and include the eastern vista; the area adjacent to the A64. The scope of this phase will include landscape forming and planting.



Landscape Master Plan

F. Progressive Implementation of the Master Plan

F1 Development will commence on Heslington East with preparatory infrastructure work associated with the removal of the overhead power lines that traverse the site, archaeological investigations and the establishment of a haul road. In parallel with the early building construction works key aspects of the landscape will be created including the lake, the raising of Kimberlow Hill, and the buffer zones that separate the development from the two neighbouring residential areas.

F2 Initial academic development will be focused on Cluster 1 in an area to the west of the central vista. The buildings will not create a 'street frontage' but have clearly identifiable entrances that are set back from the main thoroughfare.

F3 Subsequent development for the first academic Cluster will take place behind the initial development. It should be recognised that a lot of University funding is achieved opportunistically with short time frames for development. This will be taken into account in the design of subsequent clusters in order to identify sites for potential expansion close to academic departments.

F4 In addition to planning the layout of building expansion, consideration needs to be given to utility services, service road layout and the temporary landscape that is to be put in place which will subsequently be built upon.

F5 The development of subsequent academic clusters will adopt a similar principle to that outlined above and will be centred on a complex of academic departments interlinked with social and residential buildings and with business activity integrated with the appropriate academic departments. In addition to academic clusters there will be other centres of development that reflect the mixed uses for the site contained within the Facilities Brief.

F6 In considering the detailed development of the Master Plan, other factors will need to be taken into account. These will include but not necessarily be limited to:

Access to development plots

In developing the building form for individual plots, the designer will consider all means of access for cyclists, pedestrians, disabled people and service vehicles based upon the movement principles described earlier

Small structures

In considering the layout of individual plots, the layout of other smaller structures needs to be taken into account:

- Substations
- Bicycle stores
- Recycling and refuse stores.

Other aspects that will need to be considered in the layout of plots include lighting, street furniture and the potential show case the site offers for public art.

G. Sustainability

G1. University Policy on Sustainable Development

The principal goal of the University is to build and sustain academic success in teaching and research, valued in their own right and as a means to enhance the wellbeing of local, national and international communities and economies.

The University is committed to meeting this goal through the sustainable development of its teaching and research capacities. To this end its policy is to strive to balance three key principles: financial viability; environmental enhancement or compensation and social responsibility. These three principles imply:

- Maintaining the financial viability of the University;
- Mitigating environmental damage and providing compensating environmental benefits wherever damage cannot be mitigated;
- Recognising the University's responsibilities to all recognised stakeholders.

In considering developments and implementing the above principles the University will:

- take account of the full range of costs and benefits of all new developments (including non-market environmental costs and benefits);
- Take a long-term view of the financial and social costs and benefits of any development.
- Move beyond minimum legal compliance and current best practice wherever its key principles require it;
- Mitigate environmental damage and enhance environmental quality wherever possible;
- Obtain the best advice from experts on sustainable development and build sustainability into the brief for all new developments, having reviewed the full range of options;
- Follow the environmental impact

assessments at the development stage with continuous monitoring of environmental performance during use.

On-going development and implementation of the sustainable development policy and strategy is the responsibility of a University working group chaired by a Pro-Vice-Chancellor. Its membership is drawn from those with expertise in the key aspects set out above. It will work closely with other more detailed working groups within the University (on Transport, Energy and Environmental Protection) to ensure coherence and consistency in the University's approach to sustainable development.

Sustainable development is variously defined as:

- a process which enables all persons to realise their potential and to improve their quality of life in ways that protect and enhance the earth's life support systems
- development that meets the needs of the present without compromising the ability of future generations to meet their own needs
- a balance between the social, economic and environmental needs of the present and future generations.

G2. The University's adopted policy on sustainable development strives to balance three key principles: environmental enhancement or compensation; social responsibility and financial viability. From these principles, the University has developed five strategies through which this policy will be delivered. These are strategies concerning:

- Effective Carbon Management
- Efficient Use of Resources
- Biodiversity
- Social Responsibility
- Economic Viability

These strategies are developed below.

Sustainable design and construction, which is an important aspect of sustainable development, is addressed within the effective carbon management, efficient use of resources, biodiversity and health and wellbeing categories of BREEAM assessment (section G3 1.1 below).

The exact nature of climate change is unknown over the period of implementation of this development, though designers will be aware of the need to make all buildings and green landscapes adaptable for present and predicted impacts. Buildings are currently designed to Part L of the Building Regulations which have been produced to reflect climate change. In addition, BREEAM assessments give credits for bettering Part L standards.

G3. University of York sustainability strategy

This Sustainability Strategy, submitted in fulfilment of Condition 11 of the outline planning permission, has five elements covering the three aspects of the triple bottom line approach set out above.

1.0 Environmental responsibility

The University will enhance the wider and local environment by ensuring effective carbon management, the efficient use of resources and greater biodiversity.

1.1 Effective carbon management

The University has set the following objectives:

- A reduction in carbon emissions across Heslington West and Heslington East campus of 10% by 2010 from the 2004 baseline
- BREEAM rating on all new buildings of at least 'very good', and where possible 'excellent'

Actions to reach these targets are already being implemented. They include:-

A Carbon Management Implementation Plan which has introduced:

- widespread metering, measurement of carbon footprints, appointment of energy champions, and energy use awareness campaigns.
- an emphasis on the purchase of energy efficient equipment and on reducing the demand for energy through changing working practices.
- where possible, new buildings on both Heslington East and Heslington West will be passively ventilated.
- smart building management systems will be used to reduce energy use as will thin client technologies.

An Energy Strategy for Heslington East

In order to meet the Government's carbon cutting ambitions, both higher levels of energy efficiency and much greater use of renewable energy and low carbon energy is required. The University is developing an Energy Strategy for the new campus that will include the use of renewable energy and low carbon energy. For example, use of combined heat and power will be assessed.

The university is fully committed to generating at least 10% of the campus' own energy demand from on-site renewable energy sources. Sources such as photovoltaic cells, solar panels and wind turbines will be investigated. The provision of sources of renewable energy will be included within the University's Energy Strategy and implemented progressively through the development.

Higher levels of energy efficiency will be introduced by measures such as building design to high energy efficiency specification, e.g. orientation of buildings to maximise passive light and heat; and air conditioning limited to cooling equipment but not buildings or people.

Travel Plan

To reduce emissions from car travel, the University has constrained car parking and introduced charges for parking. Non-car means of transport are encouraged by a subsidy to bus travel, a Cycle to Work scheme, and investment in safe pedestrian and cycle routes.

BREEAM

Current construction projects on Heslington West are seeking to achieve a BREEAM 'very good' rating and on Heslington East the target will be BREEAM 'excellent' with a minimum of 'very good'.

1.2 Efficient use of resources

The University has set the following objectives:-

- To introduce a Waste Management Policy and Programme that meets or exceeds all legislative and regulatory requirements placed on it. The programme is designed to minimise waste wherever possible, and where it is inevitable to re-use, re-cycle and safely dispose of that which cannot be treated in any other way. There is a target of increasing re-cycled waste; the University has already (in 2007) achieved the DEFRA performance targets for 2010.
- To introduce a Sustainable Drainage Scheme including rain water collection, initially on Heslington East and, as circumstances permit, on Heslington West.
- The non-duplication of facilities and commitment to shared facilities.

Actions to implement the above objectives include: extending the provision of recycling containers and extension of the forms of waste recycled; effective procurement to reduce waste generation; measures to reduce the use of paper (the adoption of double sided photocopying, limiting printing); use of recycled paper; re-use of

furniture; and a move from individual printers to networked printing. Departments on Heslington East will share workshop and laboratory space. The University's Sustainable Drainage Strategy has been submitted in response to Heslington East outline planning condition 19.

The use of locally or regionally sourced materials will be considered on new building projects.

Water conservation techniques and appliances will also be considered on all new building projects.

1.3 Enhancing biodiversity

The University has the following objectives to:-

- maximise habitat diversity
- protect and enhance the variety of local and regional flora and fauna found on the campus
- create a sustainable, biologically viable lake, wetland and water meadow
- Actions to implement the above objectives include:-
- the production of a landscape strategy and Environmental Site Management Plan that provides for a range of character areas, each supporting different forms of flora and fauna;
- increasing the percentage of native planting;
- benchmarking the current diversity, and planning for subsequent surveys to monitor improvements.

To ensure that the maximum educational benefit is made of the enriched biodiversity, it is proposed to develop a field study centre as part of the Heslington East development.

2.0 Social responsibility

The University is seeking to ensure that in all its activities, it acts in a socially responsible manner, benefiting all its stakeholders. To achieve this,

the University will:-

- Ensure that new and existing areas of teaching and research meet demonstrable social and economic needs.
- Deploy University resources (in the form of skills, knowledge and facilities) effectively within the locality, region, nationally and internationally to enhance social and economic wellbeing and encourage social cohesion.
- Commission sustainable building designs which consider the health and wellbeing of occupants.
- Maintain and strengthen an environment in which staff and students respect each other and members of the wider community and act in a considerate and responsible manner.
- Engage with the City Council organised local community forum to discuss and explain development proposals.

Actions to implement these objectives include: the development of courses that meet societal needs including those with a vocational focus (examples include the establishment of the Hull York Medical School, courses in nursing and health care, in Social Work, in Green Chemistry and Environmental Policy), and research that addresses pressing social and medical conditions (for example, research that seeks solutions to illness via plant based products, or that addresses the causes and potential alleviation of child poverty or homelessness). The University has a Business and Community Strategy whose objective is to enhance economic and social wellbeing, achieved through a wide range of activities, including a very large volunteering programme that supports local schools and voluntary associations and provides sports coaching to a wide range of children. The campus is open to all and the University offers a wide range of public lectures and concerts.

The University is committed to acting as a good neighbour to local residential communities

through regular meetings, investigating complaints, the provision of on-campus residential accommodation and encouraging students who live in the wider community to abide by the code of good practice.

The University aspires to increase the range of shared facilities and is committed to community access to its new sports, leisure and cultural activities associated with expansion. It is committed to increasing knowledge transfer activities, providing shared research facilities and working closely with local businesses to help develop and sustain the vibrancy of the York economy.

As part of Higher York, the University will make appropriate facilities accessible for a wide range of educational uses with programmes that support school and further educational engagement.

3.0 Maintaining financial viability

The University has the following objectives:-

- The use of whole life costing ensuring a concern with the recurrent use of valuable resources.
- Increasing cost-effective procurement, and procurement from sustainable sources.
- Reducing the costs of energy use by reducing consumption and the costs of waste disposal by reducing waste generation and landfill requirements.

These objectives are already being implemented. For example, all capital projects involve an assessment of whole life costs before approval; there is a dedicated procurement function with framework agreements in place that ensures cost effective procurement from sustainable sources; and a programme of metering of energy use ensures that costs are known and realistic targets can be set for reduced use.

The aspiration to BREEAM excellent and the commitment to achieving at least 'very good' and to exceeding nationally set waste reduction and recycling targets ensures that energy use and waste disposal will continue to be monitored and costs controlled and where possible reduced.

G4. Monitoring sustainable development

The University monitors its performance in respect of sustainable development in a range of ways: for example, the percentage of waste recycled; reduction in energy use; cost-effective procurement from sustainable sources; community engagement; reduction of the extent of single occupancy car use. Where appropriate, targets are developed and benchmarked annually.

However, not all aspects of the sustainability strategy can be assessed in this way and qualitative assessments on some dimensions are necessary, for example, the shared use of facilities such as for a public concert series and the impact of a publically accessible open campus. A sustainability monitoring process (akin to an Environmental Management System) already exists in the returns made in respect of Local Agenda 21, or the Business in the Community Environmental Index, plus the Higher Education Funding Council's Eco-Campus Initiative.

The University will continue to monitor its sustainable development by reporting on specific policy areas, and overall through the composite indices noted above, including BREEAM.

G5. Sustainable development over a 20 year development period

Heslington East will be developed over a period in excess of 20 years. The high level Sustainable Development Policy will continue to guide the development, but the means by which the high level objectives are implemented are likely to change as knowledge and technologies develop.

National and local guidance will also change over time.

To address this situation, each planning phase/ submission will be accompanied by a Sustainability Statement. This will show how, at that particular time, the Sustainable Development Policy and Sustainability Strategy is being implemented and reflected in the details of the construction and operation of the proposed buildings. It will relate to the planning guidance in force at the time of the application.

H. Buildings and Landscape Design Guidance

To provide continuity between Heslington East and Heslington West it is important that there are some consistent design themes that thread their way through the development. The intent of the following design principles needs to be applied, although it is recognised that in order to retain visual interest there will be some flexibility on how this is achieved.

Public and Semi Private Realms	Areas that have restricted access need to be clearly distinguishable from those that are open to all. This may include areas where open access is not prohibited but is deterred, e.g. service areas.
Walking Distances	Use of 1 and 2 minute walking times between events is key to the readability, comfort and enjoyment of the place.
Approach to Microclimate	Buildings are to be positioned to maximise the benefits of sunlight, to protect from cold winds and reduce the effect of wind on building edges.
Visual Links	To connect identifiable spaces and buildings within clusters and to provide views outwards to the lakeshore and the surrounding landscape.
Meeting Areas and Focal Points	Each cluster of buildings needs to have a distinctive centre interlinked with a series of landscape spaces to create a sense of place. These centres will form a sequence of meeting hubs around the University and each should have a distinguishing feature such as a landmark building, a form of public art or grouping of specimen trees.
Buildings	Buildings that are of the highest quality appropriate to the University's status and reflect their relationship spatially and materially with the landscape.
Main Entrances	Entrances are to be clear and distinct, provide good orientation and identify what goes on behind the portal. Entrances to academic departments or other public activities should open onto major spaces and routes with good visual connection from inside to outside. Areas around entrances are to remain uncluttered by street furniture etc.
Uses and Activities	The arrangement of academic and social functions should reinforce the concept of intermingling activities. Public activities are to be easily accessible and visible, located at ground floor level close to entrances and main routes.
Covered Ways	Where possible the principle of protected covered ways for movement between and through a building cluster will be retained.
Paths and Roads	There will be a consistency in the way paths and roads are presented that clearly identifies their use, whether these are direct routes, recreational routes, service routes or for the UTS.
Signage	Signage will be consistent across the University. Good design with clarity of purpose should allow signage to be kept to a minimum.
Roofscapes	To create a legible roofscape to the campus the roofscape of the buildings will generally rise up from the lakeshore towards the northern boundary with sloping or stepped profiles providing visual interest and silhouette. The most exuberant roof forms will be for the landmark buildings.
Sustainable Buildings	A target of achieving BREEAM excellent rating for its buildings with very good as a minimum.
Sustainable Materials	Responsibly sourced materials that are of the highest quality reflecting environmental impact, maintenance requirements, cost in use and life span.
Building Character	It is probable a broad spectrum of materials will be used; however there is a requirement for a consistency of materials within building clusters with distinction between landmark, academic and residential building typologies.
Service Entrances	Service entrances need to be discreet and not in the main public realm but within semi-private space. All service accessing needs to be congregated together such as bin stores and the like to prevent unnecessary service vehicle movements.
Transport Links	Links with the public transit system need to be clear and distinctive so that the need for unnecessary signage is eliminated and the use of private transport is minimised.
Relationship between Landscapes and Buildings	The buildings need to respond to and enhance the landscape in which they sit. They should sit informally within it and there is the opportunity for the landscape to run through or over buildings via covered ways, open atriums or green roofs.
Lighting and Security	There will need to be consistency in how lighting and CCTV are to be incorporated. Secure by design principles will be implemented and lighting remain unobtrusive. Buildings should be outward looking to animate routes and promote passive surveillance.
Water as a Feature	The use of water and in particular creating connections with the lake and swales will be a continuing theme across Heslington East.

The buildings and their architecture

The architecture will play a major part in the readability of the place making concept. The inter-relationship spatially and materially with the landscape, will also be key to creating a human environment.

A sequence of experiences: variations on a theme

The overall grouping of clusters or master plan quarters, sets up a series of sequential experiences. This is intended to give both stimulation and reassurance, as each Cluster is experienced 'en filade', so that one place is experienced in sequence with the next. This sequence is heightened by the interspersions of 'green vistas' between clusters visually connecting the east west pedestrian movement with the wider surroundings north and south.

The master plan idea proposes that each Cluster has its own architectural character so as not to result in a monolithic relentless experience. The concept is for a beautiful 'patchwork quilt', with clusters as variations on a theme. This is tied together through a commonality in spatial hierarchy, massing, form and building topography. The architectural approach to common use groups of buildings within each Cluster together with the emphasis on Landmark buildings and spaces will stimulate the sequential experience through the campus.

Architectural character: residential buildings

A more domestic and friendly scale of materials is appropriate to the character of the College wrap. Render, wood, and brick, can be interplayed to give vitality of treatment. The two Western residential clusters are proposed in render interplayed with wood and in the two Eastern clusters brick can be interplayed with wood. Variation through colour is encouraged, within each Cluster, to give

an identity to each residential College within the overall theme. As the residential colleges are described spatially as courtyard gardens with cool outside and sun facing courtyards, then colour will be used to accentuate this sidedness. Windows will in general describe student bed/living spaces or communal activities. Fenestration to student rooms should avoid the barrack-like elevations often seen on this building type.



Brick & Wood



Render & Wood

Architectural character: academic buildings

A more 'civic' scale is intended for the academic buildings. This will be described in language of panellised or sheet material, with large scale fenestration describing the bigger and more collective activities within. It is important that the academic buildings within each Cluster have a common material language, thus one Cluster may be in metal, another boarded panels, one in concrete panels and another in clay.



Metal



Boarded Panel



Clay



Concrete Panel

Architectural character: landmark buildings

These are the architectural crescendos to each Cluster and give a strong identity to each. These buildings should be exuberant in architectural language and form to give emphasis and identity. Each should be characterised by a unique material palette creating counterpoint within the overall master plan experience. The materials should have an 'exotic' character to accentuate their importance and publicness. Woods, special metals like stainless steel or zinc and stone are appropriate and should be used in conjunction with materials used to the neighbouring College and academic buildings to create vitality.



Wood



Zinc



Stainless Steel



Stone

I. Cluster 1 Design Development

I1 Introduction

This section describes our approach to the cognitive aspects of the Cluster 1 master plan which lies to the west of the central boulevard. Here we create a framework for how buildings, spaces and landscapes come together and the principles of how they will be perceived and enjoyed by those that use them. The emphasis here is the experience of the Cluster user and of the student, staff member or visitor arriving, primarily as a pedestrian, from the Pedestrian and Cycle Ribbon, Movement Spine or by private transport from the Central Gateway.



Cluster 1 Urban Design Plan

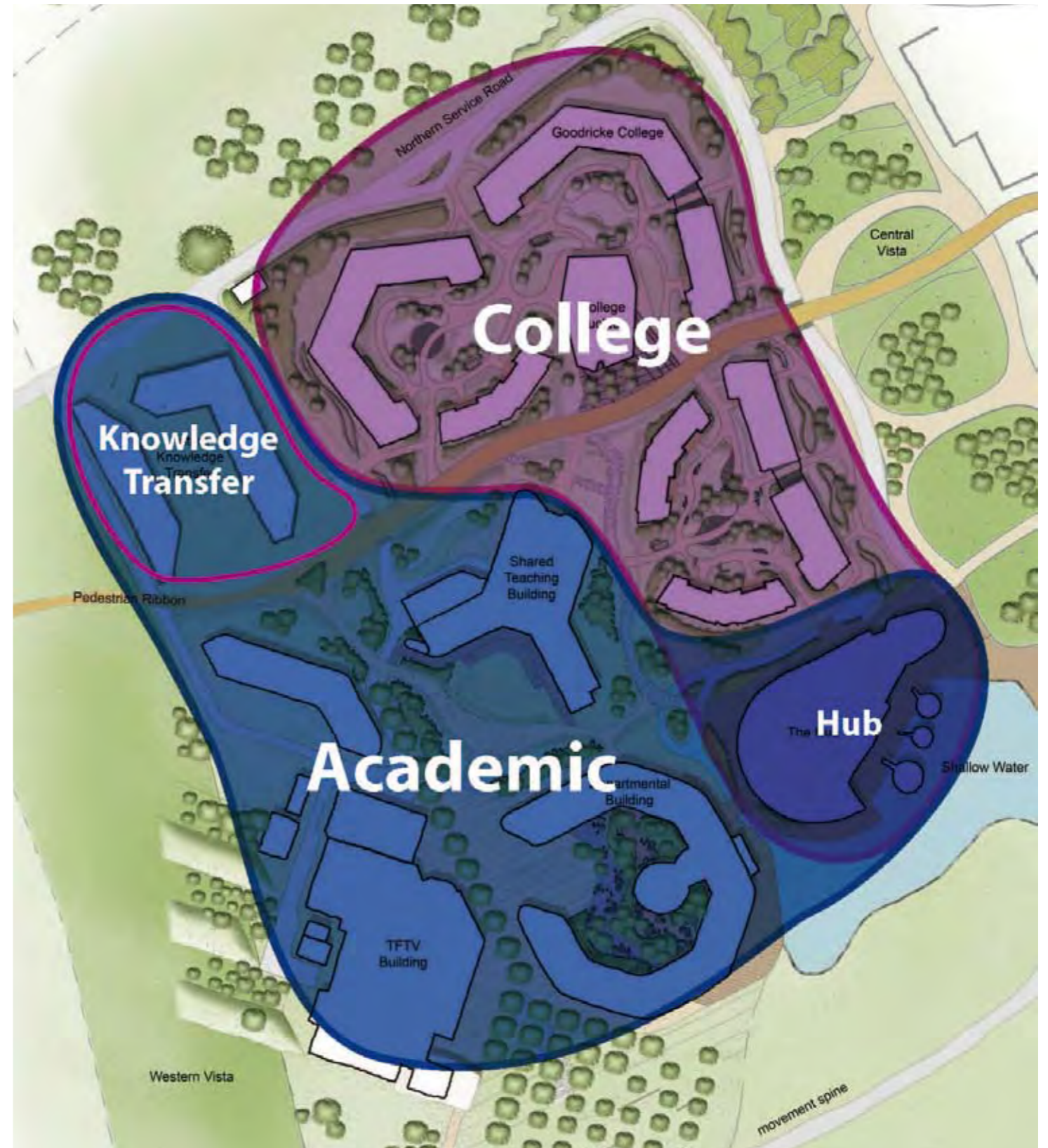
I2 Cluster 1 Concept

College and academic grouping

Cluster 1 is the first Cluster to be designed and is therefore the initial pilot for the physical expression of the Cluster concept. In this particular Cluster, the urban design idea creates a 'yin' and 'yang' grouping, intertwining living with learning, their built activities and external spaces, creating a seamless place that can be easily understood and enjoyed. The routes for movement are threaded through the activities, bringing them together rather than dividing them, e.g. College, academic and knowledge transfer uses. This principle of integrating uses forms the generic idea to the Cluster concept in each part of the master plan. The design expression creates variation on a theme. This, we believe, will result in legible, interesting and human place for people to live, work and enjoy.

Creating a human environment

Our design approach to Cluster 1 is to put people and their experience at the heart of the process. Our wish is to create a place that is easy for people to find their way around and stimulating to be in. This forms a common reference point for the shaping of other clusters throughout the master plan.



Cluster 1 Concept

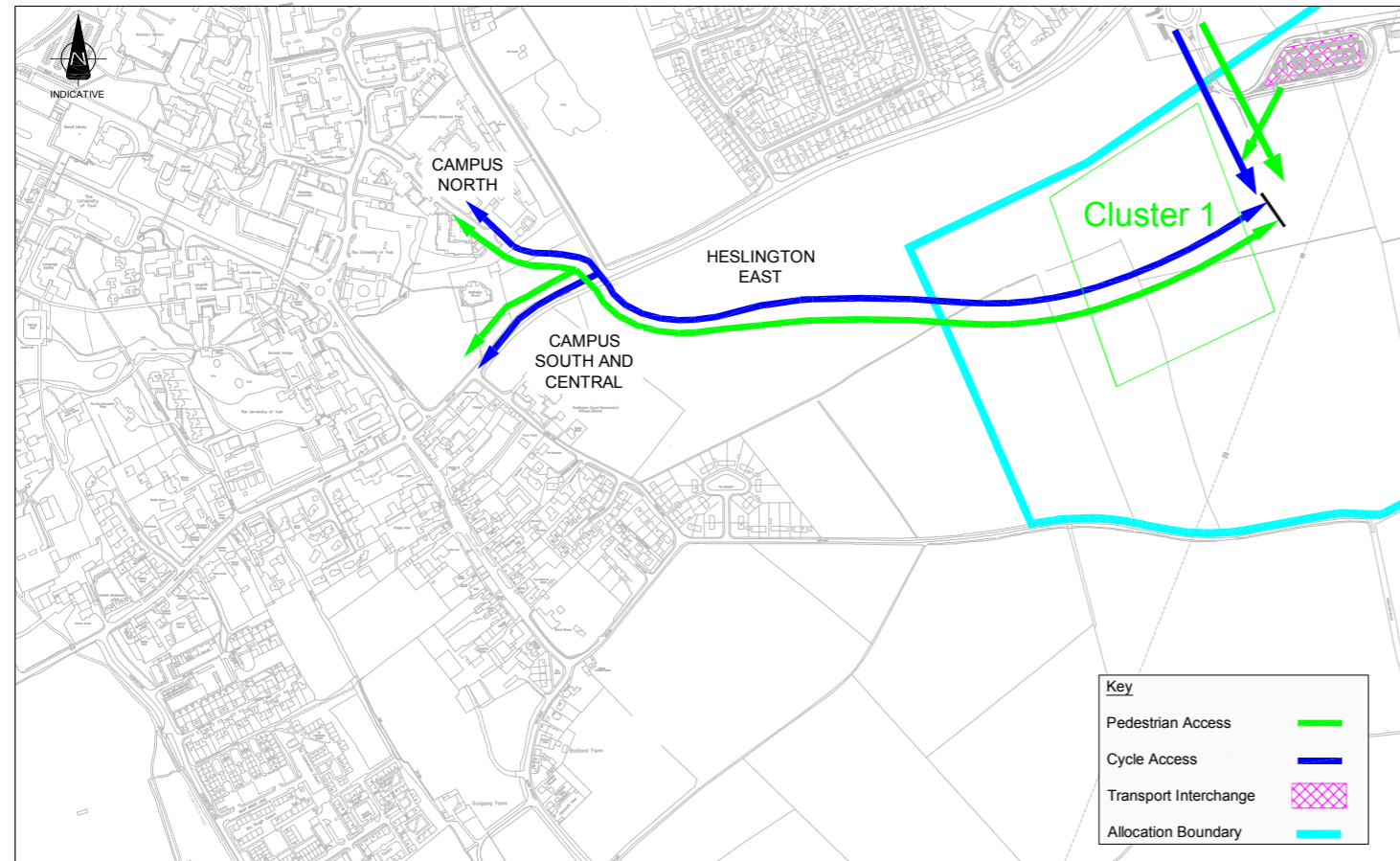
"Strolling is a science, the gastronomy of the eye" Balzac

I3 Walking Distances and Times: a Cognitive Human Experience

Each Cluster of buildings and spaces which form the sense of place, are shaped around the cognitive aspects of people experiencing the place on foot. Walking times between events, e.g. corners, buildings and spaces, are key to the feeling of readability, comfort and enjoyment. This has been established by urban design thinkers like Barrie Maitland and Jan Gehl and is what we experience in good places with strong human identity. This approach, we believe, also leads to a more interactive human environment, i.e. people 'bump' into each other where routes meet at corners, where social activities and buildings are placed and where they come upon different places. Our design idea uses the 1 minute walking time (at 80 metres per minute for

purposeful strolling) as the measure for setting recognisable events. People readily walk for a minute and in good towns events are usually interspersed at this pace. 'Mini centres' should, wherever possible, never be more than 2 minutes from the periphery of activity to encourage a desire to walk there and meet people along the way.

The design of Cluster 1 indicates the concept, using 2 minute walking times for the longer sequences – pedestrian ribbon to Hub building; Boulevard housing corner to Hub; teaching court to waterside; pedestrian ribbon at west entry to Student Terrace. Within each of these sequences 1 minute's events, corners, spaces, building, activity and landscape punctuation, create interest, enjoyment and stimulation for the users.



Pedestrian and Cycle Routes to Cluster 1



1 Minute Walking Times - Cluster 1

I4 Approach to Microclimate

Building shape and orientation

Our design of Cluster 1 creates warm, protective microclimates to places, routes and entrance thresholds. The site has many advantages in this aspect, firstly its long side faces due south, receiving maximum sunlight across its surface throughout the hours of sunlight and seasonal range; secondly the linear nature of the master plan sets the prevailing winds south west to westerly and north easterly to the 'gable of the clustered groupings', thus reducing exposure within the spaces between buildings; thirdly by setting the lake to the south of the buildings and inhabited spaces, there is the unmissable opportunity to bring magical reflected sunlight off the water plane onto the lakeshore spaces and into the social activities in buildings.



South facing gathering spaces, looking to the lake



Warm Microclimates

Sunlit protective external spaces

At this latitude in the Northern hemisphere it is vitally important when designing a human environment that people are placed in the sun and out of the wind. All spaces within building groups are turned towards the sunlight and wrapped by buildings to protect from the cold north/north-easterly winds. The buildings are not rectilinear as in an urban city structure. Instead they are accented to the microclimatic benefits of sun, protection and reduction of wind effect on edges. Corners are bent rather than right angled to soften wind effect and enhance potential for sunlight on different faces.

The design of Cluster 1 also demonstrates the idea of the 'solar carpet'. This concept is a result of breaking the buildings down to afford south light to shine through from one space to the next.



Sun filled, sheltered gathering spaces

Building groups in each Cluster are composed to create continuous solar facing spaces, giving enhanced warmth and light. The northern perimeter of residential buildings are orientated to the northeast or northwest, allowing sun to wash the perimeter early and late in the day.



Solar Carpet

"Life, spaces and buildings and in that order please" Jan Gehl

Entrance thresholds

Entrances are accented to sunny spaces to enhance people's mood as they cross the threshold. The shaping of the buildings facilitates this even if routes arrive from a northerly direction, receiving sunlight from east or west, as in the northerly entrance to the Hub building. Entrances are also set so as not to be exposed directly to prevailing winds. No entrances should face directly north east or fronted by an open exposed northerly aspect. Entrances within each Cluster which face south westerly are protected within courtyard spaces which prevent wind effect, i.e. teaching building southwest entrance and residential garden entrances.



St Peter's Campus,
Entrances open onto sunlit piazza

Activities within buildings

Social activities within buildings are drawn to the south sides to give a convivial sunlit atmosphere, with potential to open out into sunlit external threshold spaces on sunny and warm days. Activities that benefit from a flatter north light e.g. research spaces are, wherever possible, given a more northerly aspect. Student living and bedroom areas are given an aspect that will facilitate sun at some time through the day in the spring and summer months.



Buildings connecting with landscape

I5 Uses and Activities

Life within and between buildings

"The in-between concept is the key to eliminating the sharp division between areas with differential territorial claims." Herman Hertzberger

The master plan concept of intermingling buildings and landscape in an informal setting will encourage academics, students, public and visitors to the campus to interact with each other and create a distinctive sense of place. Each Cluster will have within it a series of interlinking places and destinations with active spaces located close to entrances.

In Cluster 1 the buildings are positioned to create good microclimates around outdoor spaces. The differing uses of the buildings creates a variety of territories throughout the Cluster such as the teaching terrace and the quieter College gardens which are given a sense of enclosure by the student residences.

Buildings should be outward-looking to animate routes and encourage passive surveillance, e.g. the edge of the College residences faces onto the central boulevard providing an active edge to the space during the day and into the evening.



St Peter's Campus,
Reader study spaces looking to
landscape garden

The academic and social knit

In Cluster 1 the living and learning functions reinforce the concept of intermingling activities and promotes greater connectivity between academic and social life. Activities are interlocked with academic and residential buildings arranged to create a series of interconnected outdoor spaces.

The Research Hub forms the main focal point and is also an interface between academic and social activities. The Serpentine Garden wrapping around the Research Hub is an example of a shared territory with academic, social and living activities opening onto the space.



A variety of opportunities to interact with the
landscape

Philosophy of entrances

The campus should be welcoming and attractive to all those that study, work, live and visit. An extension of this is how entrances are placed to provide good orientation, which are easy to find with a clear distinction between public accessible areas and those that are more private. Public entrances, therefore, open onto the major spaces and routes with good visual connection from inside to outside. The entrances should be articulated to encourage connectivity with public space both internally and external to the buildings.

Entrances form the threshold between indoor and outdoor activities and they should be positioned to enjoy southerly aspects, maximising sunlight and have good microclimate. They are also important gateways for passive surveillance and help to maintain a secure environment. They should be safe, overlooked and welcoming.



Faculty of Education, Entrance, daytime



Faculty of Education, Entrance, evening

The entrance to the Research Hub is marked by the 'event' lecture theatre and opens onto the Central Piazza, a south facing public space enjoying views south across the lake and east over the campus. The College entrances are designed to promote the collegiate idea and all face into the College gardens.



St Joseph's Hospital, Grouping of buildings



Entrances and Activities - Cluster 1

Ground level activity

Social and public activities within buildings are set at ground level to relate to the main spaces, routes and entrances. Visitors to the campus will be able to look into activities and see what is going on. Social spaces will have good connectivity with outdoor spaces and good orientation to capture sunlight to encourage people to use outdoor space. Use will also be made of the lakeshore to take advantage of the southerly orientation and sweeping views across the lake and beyond.



Saltire Centre, Learning hub

Active, public spaces may include entrances and reception / foyer and atria spaces, lecture theatres, performance spaces, common rooms, cafes and exhibition areas. Service entrances, plantrooms and so on should be located away from pedestrian routes, public spaces and entrances.



Marlow Academy, Social gathering space

Publicness of activities

Within each Cluster there will be a range of public, semi-public and private spaces. These can be differentiated gradually in terms of accessibility, responsibility and the relationship between private activity and supervision of public and semi-public spaces and activities.



Looking into public activity

The layout of the Cluster should differentiate between public areas which are accessible to everyone at all times, semi-public areas where access is passively controlled for the benefit of users and private areas which are dedicated to particular user groups.

The most public activities should be placed closest to the main routes, pedestrian ribbon and UTS movement spines and the main focal spaces.

In Cluster 1 the most public activities are placed at ground level with the most public uses located close to entrances. The lecture theatre for the research hub terminates the central boulevard and thus has good access for the whole University community. Similarly the screening theatre for

Film, Theatre and Television marks the western entrance to the Cluster from the UTS movement spine and lakeshore.



Public activity spilling outdoors

We have created territories for semi-private activity, such as the research garden and College gardens. Private spaces are generally contained within buildings e.g. student bedrooms and individual offices.



AELTC Wimbledon, semi-private courtyard garden

Passive security

Heslington East is designed to be outward looking. Each Cluster will create an open and inviting environment whilst maintaining security through the planning and design of activities and public space. This is achieved by providing a clear hierarchy of pedestrian routes and spaces with clear arrival points into each Cluster. The 'yin and yang' formation of Cluster 1 intermingles academic and residential activities ensuring that the Cluster is socially active throughout the day and into the evening.

The edge to the central boulevard is populated by the living spaces and study bedrooms of the residential buildings which will animate the arrival gateway from Field Lane particularly in the evening when buildings will be illuminated. The boulevard is terminated by the Research Hub, this will be a 24 hour building with the main reception for the Cluster and will mark the main arrival point for visitors.

The College is designed to create a protective environment within the gardens with good passive surveillance. The gardens are animated by the building entrances and vertical circulation designed as semi-external wintergardens with views out into the garden spaces. Communal living spaces are located adjacent to entrances at each floor level with others facing into the College gardens.

The entrances to academic buildings are placed adjacent to the main spaces within the Cluster. Reception spaces, administration and offices are located in close proximity to entrance areas providing passive surveillance.

I6 Clusterscape

Clusterscape

Given the University's overall design goal of "activities intermingled within a landscape setting", we felt it appropriate that the normal terminology of visual perception in urban areas that is called 'townscape' should be adapted to a new term relating to the perception of buildings and activities within a landscape as 'Clusterscape'. This, we believe, takes on a different characteristic and structure to that formed by streets, squares, landmarks and glimpses between buildings. It is more fluent and less strictured than in a town, allowing the viewer a more multi-dimensional experience. This still has identity points shaping the views and spatial experience but the overriding dynamic of the landscape heightens the experience, by its own form, seasonal colour and characteristics, movement due to wind, sunlight and acoustic characteristics. The placing and shaping of buildings also follows a similar characteristic to that of shaping the landscape and a more clustered form or pavilion building typology is appropriate to this generic idea.

The spaces between buildings

The design idea creates a variety of spaces which interlink to give a stimulating sense of place. These are orchestrated to produce a paced experience to people passing through on foot, enjoying the activities of places as they come across them.

It is our intent to allow this to be an organic sequence based on good cognitive relationships rather than an overly rationalised and formulaic idea of spatial typology. Our design embraces an approach to sequential spaces, i.e. one easily leading into the next. In this respect, Cluster 1 forms a 'pilot' for spatial ideas that can create a sense of place to be used and augmented across the master plan.

Spaces for movement

The pedestrian ribbon is a 'knowable space' in itself which experiences each Cluster in sequence. Each Cluster forms punctuation along the route like a 'string of pearls'. Events are paced to relate to experience on foot, although it is recognised that people will cycle (hopefully slowly). The winding pathway, slows the pace of movement down creating a convivial route for people moving from Cluster to Cluster.

Outdoor territories for gathering

Gathering spaces, focal points and destinations are set within and between clusters. Many of these are along the south edge fronting the lake. Others, usually smaller in scale, are located along the pedestrian ribbon. These will bind together the activities of each Cluster and will be the memorable places throughout the campus. They relate to the more public and overt activities and buildings as demonstrated in 3 new places formed in Cluster 1: the Student Terrace, Teaching Court and Central Piazza.



Spatial Links - Cluster 1

The student terrace

A south facing terrace space to the 'student house' forms an extrovert area for students to gather in a sunny piazzetta adjacent to the pedestrian movement spine. The interior to the junior common room can be opened up to the space to create al fresco activity in good weather. This convivial space is at the knuckle between living and learning elements of the Cluster.



The central square

The Central Square terminates the boulevard at the lakeshore and is a landmark space. The Hub Building opens out onto the Piazza enlivening the edge to this active space that will be used for university gatherings.



The teaching court

A larger punctuation in the diagonal pedestrian pathway is created at the juncture of the 3 academic buildings. This south facing space is backed by the teaching building and its interflow of people. It acts as a sunlit 'tapis vert' to a very active part of the Cluster.



Outdoor territories for small groups and the individual

The College gardens are the perfect backdrop for more intimate groups and the individual to enjoy. The design of Cluster 1 acts as a spatial exemplar for future clusters. Here 3 south facing garden spaces interlink in a triangulated residential College group. These spaces are of a human scale so that you can recognise someone across each space. They are located off the main pedestrian spine to allow for more protected activity. Each is wrapped by buildings but, importantly, the spaces 'leak' out to visually link to the pedestrian ribbon. This allows the landscape to flow through, whilst controlling spatially and visually unwanted penetration. This 'defensible' space idea is also reinforced by the complete overlooking of the space from student living spaces and student communal spaces.



Outdoor territories for small groups and the individual - Goodricke College Garden

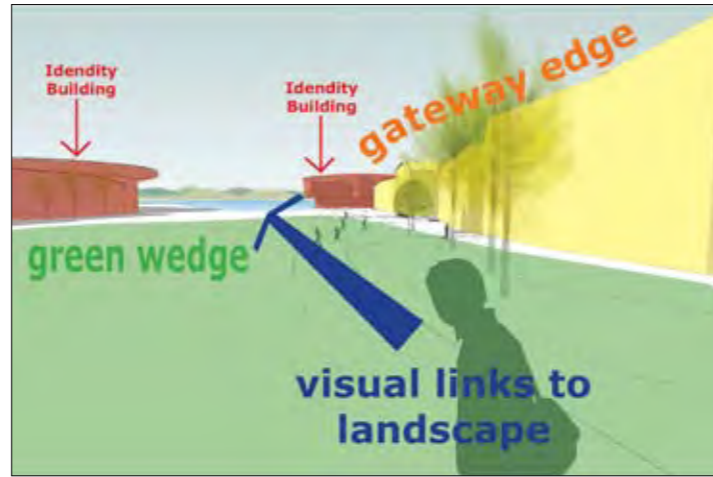
Incidental spaces

This type of spatial idea is also welcome within the academic group of the Cluster. It is very relevant to the more research orientated activities with internal garden spaces as passive, contemplative places as well as light and air gives to the internal activities around them. The 'crab claw' form of the Departmental Building creates such a garden space. This facilitates not only a contemplative space from the windows of researchers, but a space that can be used by the individual researcher or for a group discussion.

It is important in designing any human environment to find the place for a piece of delight or joyful surprise. This should be a part of the master plan idea for each Cluster. The 'Serpentine Swale Garden' forms a gardenesque space 'knitting' the Hub building with both residential College and academic group. It is a space which forms a point of delight. The fluidity of the space also creates a 'multi-aspect' character to the different building groups, ensuring that we don't have a front and back to buildings.

Landmark spaces or destination spaces

The master plan has a series of landmark spaces linked to destination buildings and activities. These are positioned to be identified at the end of public thoroughfares, such as the Boulevard, to draw the public into the campus and down to the lake. Their positions will also draw people through the buildings and spaces, towards the activity and sunlight. The Central Lakeshore Piazza is situated in between Cluster 1 and the adjacent Cluster eastwards. This is the most central of the Landmark Spaces and forms a public threshold to the Hub building, the lake and its public amenity.



Central Vista - Landmark Space



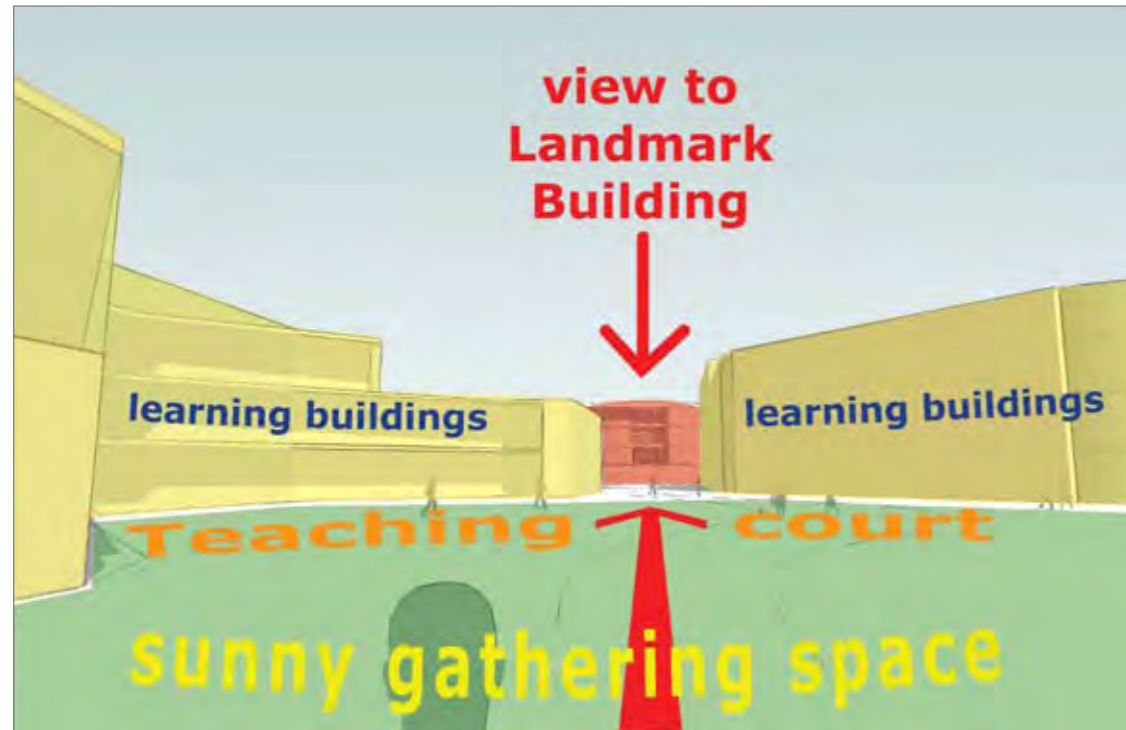
Central Vista - Residential Gateway



Visual Links within Cluster 1

Visual links within cluster 1

It is key to the enjoyment and recognition of each Cluster of the master plan that we orchestrate a sequence of visual links to allow people to find their way about. These views and lines of sight not only interconnect identifiable spaces and buildings but also provides views outwards to lakeshore or hinterland, to place the viewer in the wider context. They also reinforce orientation with lines of sight to points of the compass, sunlit (south sky), sunless (north sky), sunrise and sunset.



Visual Links within a Cluster

Visual links from cluster to cluster

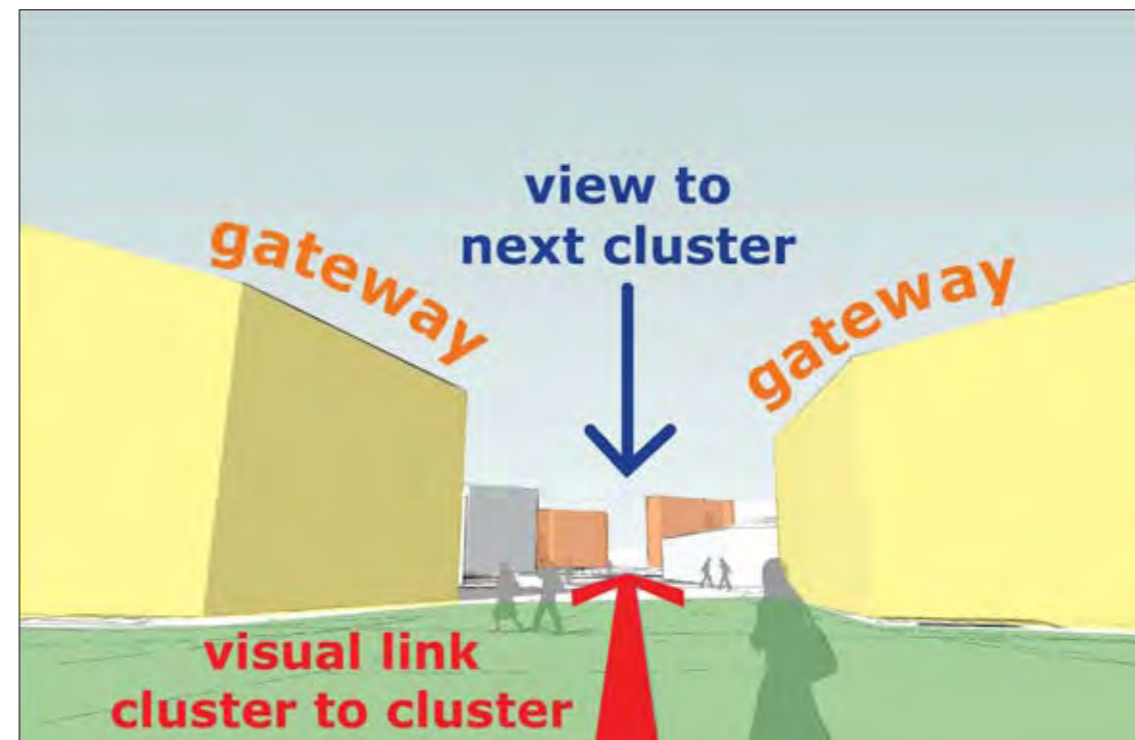
It is important that each Cluster has a visual relationship to its neighbouring clusters. Positioning landmark buildings and spaces to form visual junctions, as in the relationship at the central piazza between the 'Hub' building and the Performing Arts building. Here these two buildings need to have an architectural conversation across the space. They will form a visual frame either side of the green vista. In Cluster 1 we have pushed the point of the 'Hub' building into the edge of the view line with the drum of the lecture theatre acting as a visual gatepost when seen by the incomer from the North. In the design of the Cluster on the East side, it will be important that the performing arts building play a similar role in the visual composition.

The pedestrian ribbon has a visual gateway at the start and end of each Cluster. These connect views from one Cluster to the next across the Green Vistas and Central Boulevard.

Visual links: the wider surroundings

A number of visual devices are used to connect the campus with its hinterland. The 'Green Vistas' link people visually from within the campus up to the northerly slope and woodland and down to the lake and rural panorama to the south. South facing lakeshore buildings and boardwalk enjoy the south to the wolds beyond the A64. At the Central Boulevard people will visually appreciate the buildings either side framing the vista down to the lake and wold beyond.

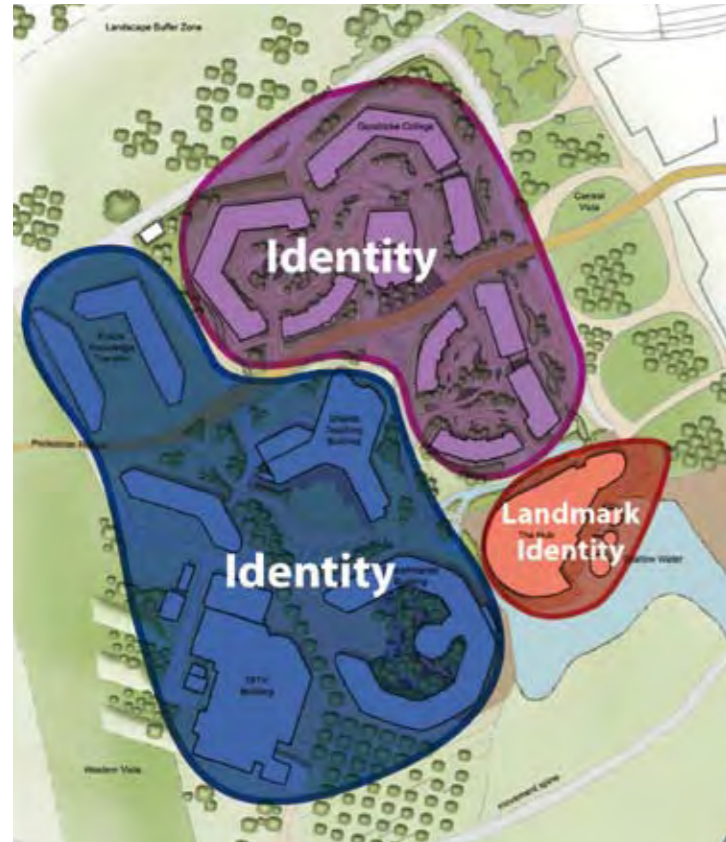
To the East and West sides of the campus, clusters will act as gateways. The east side at Kimberlow Hill enjoys land views to York Minster, the west side views towards Heslington Church, the visual link to Heslington West.



Visual gateways connect from one Cluster to the next

The buildings and their architecture

The architecture will play a major part in the readability of the place making concept. The inter-relationship spatially and materially with the landscape, will also be key to creating a human environment.



Cluster 1 Architectural Character Areas

Architectural character: residential buildings

In Cluster 1, variation is created by change of window type from garden level rooms to upper floor student rooms. A two window melody is used to rooms, with a picture window for viewing and light and the other a peep-hole 'vignette' for privacy and safe ventilation. Each is set at the appropriate ergonomic height, standing or sitting, resulting in a variation in sill heights creating a rhythmic character to the elevation. Accent is given by larger window areas to communal dining/kitchens, glazed screens to staircases and balustrades to communal balconies.



Goodricke College - Cluster 1 Residential

Architectural character: academic buildings

The general grain of the architecture should be vertical. Windows will have a compositional interest and variety, not just the serried rank approach. In this way windows can span two floors, act as big pictures, span from floor to ceiling or act as 'vignettes' forming pictures from within.

Vitality is encouraged in the architecture to reflect the vitality of activities within the buildings. In each Cluster it may benefit to mix the theme material with another material to give extra layering. In this way smaller grain of batted wood can be interplayed with sheet metal or boarded panels to give a more textured and human feel. The materials of each building should be taken down to ground to describe the full scale of the building rather than the idea of sitting on a glazed ground floor as often in business park buildings.



Approach to Academic Buildings

Architectural character: landmark buildings - the hub

In Cluster 1 the 'Hub' building is seen as a great timber pavilion set on boardwalk to the lakeshore. Its domed roof form is made from a timber grid shell to produce a great wooden 'sky' above the interior of the social space at the heart of the building. This creates a warm convivial feel when illuminated by sunlight during the day, with ripple effects off the water, or when illuminated at night reflected in the lake like a lantern by the water. The building elements are bold and tectonic with a protective overhanging roof and meeting pods that sit in the lake accessed from the boardwalk. Fairfaced wood forms the main body of the building, with stained wood used to give accent to the lecture theatre as a marker to the entrance from the Central Lakeshore Piazza. Glazing predominates to the open plan south and east side to give publicity through transparency. On the more cellular wrap on the west and north sides, windows are composed within the timber clad wall, relating to the type of activities to this orientation.



The Hub

Massing and form

In Cluster 1 the academic buildings are generally 2-4 storeys in scale. This generally results in a three storey scale with low to high parts being south to north facilitating good microclimate as well as visual build up.

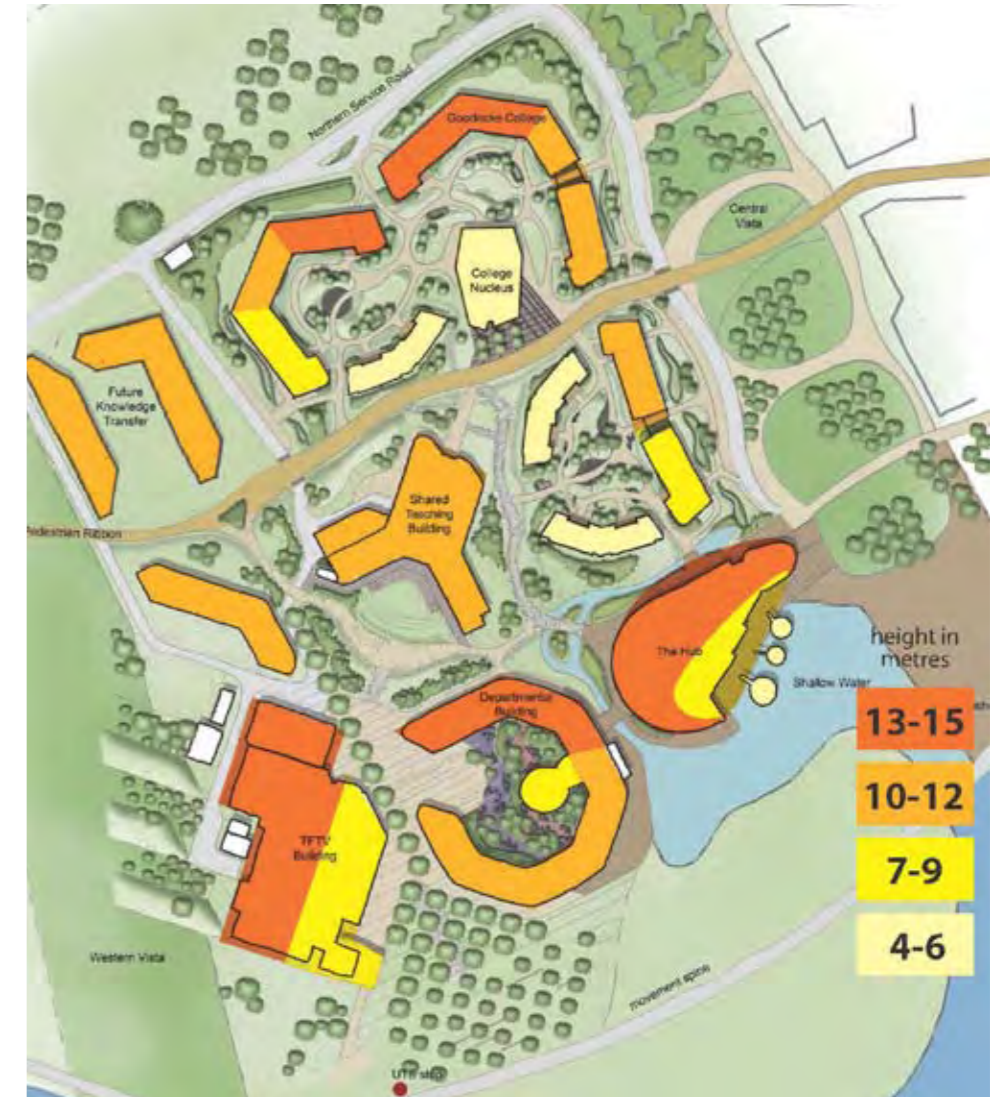
In Cluster 1 the landmark building is located along the lakeshore gravitating to the light and sun. These buildings will also build up in scale from the waters edge. They will be exuberant in character emphasising its public uses.

Gateways are formed on the north side to create welcoming points of entry to the public and university user alike. In Cluster 1 this is formed by the wrap of the College buildings, the friendly architectural character of the College wrap on this side i.e. more windows looking out during the day and illuminated at night creates a dual aspect to the north edge to feel open and welcoming. The scale of the residential, similarly, builds up from south to north low to high, two storey to five storey accentuated by the upward northerly slope. This will give a suitable presence in the landscape when approached from the north and more public side. The undulating roofline, building up in height from south to north, provides a profile and silhouette to the campus edge.

Landmark buildings will display the most exuberant of roof lines, with 'big umbrella', domed, 'big slope', wave or big stepped roof forms to give highlights at the special points in the campus.



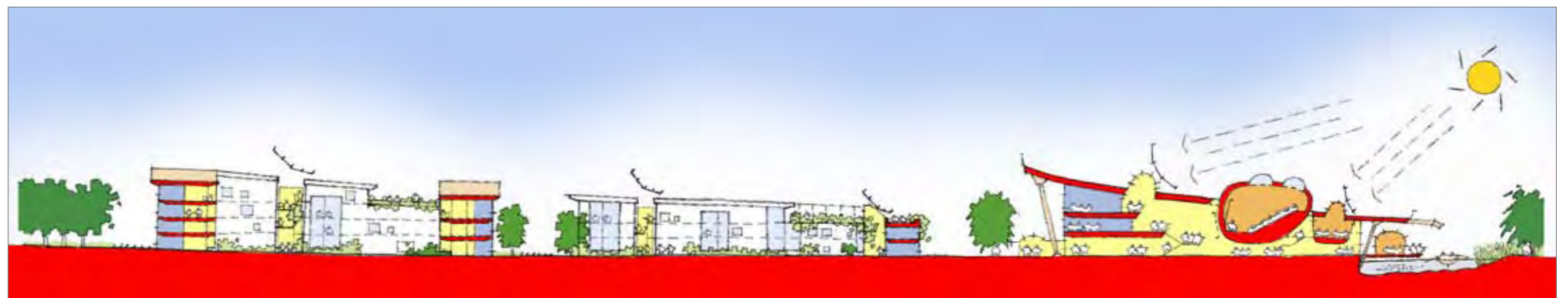
Cluster 1 Artist's Impression



Cluster 1 Overview Building Heights Diagram - Cluster 1

Roofscape topography

The roofline of the buildings is visually orchestrated to create the rising section from south to north. Each building needs to play a part in this roofscape conversation, providing visual interest and silhouette. Undulating roof forms are encouraged or stepped forms if shallower profiles are used. Flat-top rooflines will produce blandness but can be used on smaller elements when grouped with other buildings of mixed height. Overhanging roofs are preferred; with rainwater systems that visually express the sustainable drainage approach. Fineness of roof edge is important to create a pleasing profile and silhouette.



Massing and Form - Cluster 1 - building up from the waterside

17 Landscape of Cluster 1

The landscape and its character

This 'intermingling of activities within a landscape setting' which forms the urban design concept, necessitates a continuity with the surrounding landscape while adding new events into the external experience that define the new place and its genius loci.

The design intent for the landscape treatment, is primarily natural, non fussy and robust, to create a seamless experience within the wider surroundings. The Linear Parkway to the north, Lakeshore to the South and Green Vistas visually linking through, are the key macro scale devices. At the more intimate and human scale when landscape is experienced between buildings we have created a more intricate experience.

Working with the topography

Alvar Aalto said, 'Topography is the starting point', and so it is here.

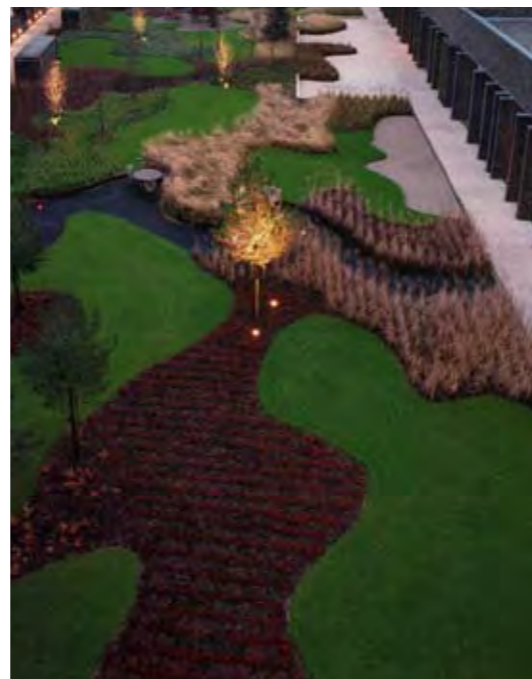
The shape of the land is responded to by the overall master plan creating a linear settlement along the edge of the higher ground on the north side of the site. The section running from North to South relates buildings to the falling topography, and the incoming sunlight and positioning of the lake. The residential College is located on the higher ground accentuating by a rising built form and giving microclimatic protection to the garden enclosures that run down the slope. The academic part of the Cluster is set on generally flat ground to the edge of the lake. Building the scale up from south to north has the effect of accentuating the upper slope when viewed from the south. Locating and designing buildings that flow with the topography also facilitates a sustainable surface water drainage system employing the use of natural swales that carry

surface water down to the lake. These form a thematic north-south landscape element, with depressions in the surface lined with grass, gravel or cobbles or designed as formal rills, as in Trumpington Street, Cambridge, or Bo 1 in Malmo.



A variety of landscape experiences

Cluster 1 demonstrates the design idea which forms the generic basis for ensuing clusters, again emphasising the concept of 'variations on a theme'.

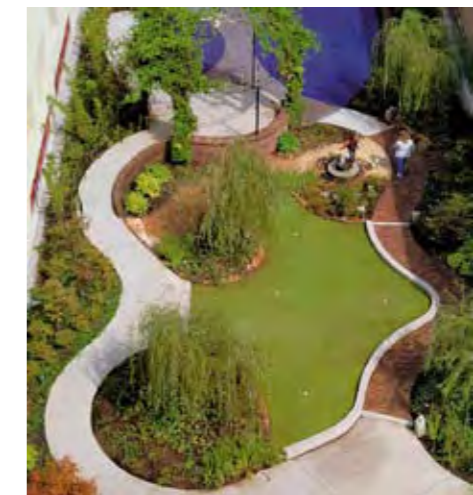


To reinforce the urban design concept of living interlocking with learning, we have developed differing characters for the landscape spaces to the (yin) College experience, and the (yang) academic experience. Spaces to landmark buildings, the lakeshore and the pedestrian ribbon, intersperse other characters into the piece giving a rich layering of experiences. Colour, material, enclosure, light play, fragrance, and acoustic heighten the experience as you move from one place to the next. In general the theme we have chosen for the campus overall, is a soft, natural and sustainable one which is both robust and romantic at the same time. This softer approach is in keeping with the transition from Heslington West. This is counterpoint to an urban university settlement, and extends the biodiversity of the wider surroundings. Seven Types of spaces are identified within the Cluster.



1. College gardens

These are 'soft' and 'slow' places for students to relax and enjoy close to their living place. Vehicular traffic is prohibited from using these spaces so as to ensure a convivial feel. Pathways, wind through grassy meadow like gardens, with seasonal colour that give interest, and identity. Mounding of soft area reflects the slowing down of the pace here and also accentuates the rising topography of this part of the site. Native tree groupings and cover planting are used to give emphasis to particular areas and induce students to sit and lie on the grass on sunny days, as well as induce natural things like birdsong and butterflies.



2. Academic courts and spaces

Courts and spaces will have a variety, to give a sense of place and heighten the experience through views and glimpses in. More enclosed spaces, like the court to the Departmental Building, are exotic in character. Here we have used water features, exotic textural ground surfaces with ornamental trees. It is important for the richness of the overall master plan design that within each Cluster there is those 'special' contemplative spaces that are discovered by people, but are familiar to their daily users.



3. The pedestrian ribbon

It is important to the concept that the movement spine winds through the campus like a rural path rather than a straight city-like street. This will create a change of pace to the route that will be more pedestrian friendly and sequential in character, with events opening out along to the continuous route. Soft grass edges with highlights of groundcover planting, relate the route to building edges. Tree cover gives emphasis to outdoor room spaces or revealing of views to key buildings and spaces. As the movement spine moves from Cluster to Cluster it may change character in soft planting theme, to complement the theme of each Cluster. This will give a visual tempo to the length of the route. It will be important to keep the same hard movement surface to act as a clear and continuous thread throughout its length.



4. The lakeshore

The lake forms the great outdoor frontispiece to the settlement and its clustered sequence of places. It is the singular landscape element that gives the overall sense of place to the settlement, like Lucerne or Lugano. It has 3 character edges:



5. The rural discovered edge: This forms the soft natural edge of the south, east and west sides of the lake. It imitates a natural water body, with undulating edges, land slipping into the water. A variety of habitats will be created by the use of different planting, different forms and edge conditions. Pathways will be made by people tracks like Blenheim or Chatsworth, rather than formed artificially.



6. The soft passive edge close to buildings:

These are the rural character promontories, peninsulas and islands that push out into the lake from the north (inhabited) side. These form 'landscape breathing' spaces between buildings and the waters edge, they are passive rural environments where people can walk out easily to enjoy a more bucolic lakeside experience. They also provide great south facing picnic spots, lovers' retreats or festival and marquee type spaces, like Glynbourne.



7. The boardwalk edge and edge to focal spaces: At certain points the landmark buildings and major spaces will adjoin the lake. Cluster 1 is the most important point where people are brought to the waters edge, at the Hub building and in the Central Piazza. At this point it is important that people on the edge experience the water in close proximity. To enable this we have created an upper lake which will have a constant watermark with the lakeshore. Alongside the Hub building a wooden boardwalk is formed allowing the building to open out on this side and creating a public promenade to the waterside. The boardwalk connects with the Central Piazza to the east side of the Hub. Here the paved gathering space should have as close a vertical relationship to the lake as possible.



Landmark spaces

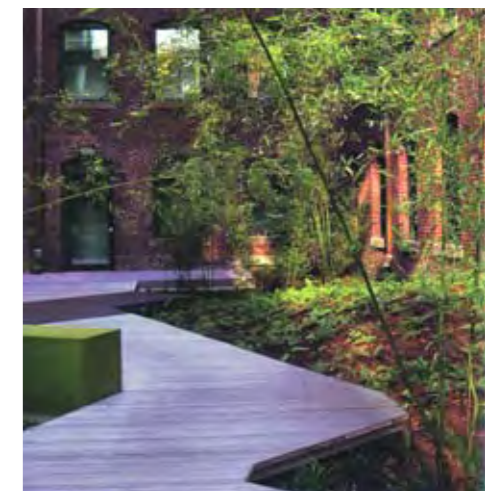
Landmark or destination buildings have similarly landmark spaces connected to them. These harder spaces will need soft landscape to give them a warmer feel, and help the idea of continuity with the wider countryside. This can be provided by a number of design devices, ceilings of trees as in a French square, threading ground cover into the paving pattern in less active areas of the space, or creating coppiced tree groups to create different territories to the bigger space, as in the embankment square to the Tate Gallery at Bankside.

Landmark buildings should aim to have spatial activity on all sides like pavilions in a park and unlike 'front and backside' urban buildings. The treatment of the spaces around the Hub building to Cluster 1 is a good example of this multi-sided pavilion approach. To the east of this is the Central Piazza and along the south runs the boardwalk. Wrapping around the curve shape of the west and north side, which form the entry side for students from academic and residential buildings, is the Serpentine Swale Garden. This is a water garden formed at the culmination of individual surface water swales to Cluster 1. It is like a gravel and stone river bed with bamboos and grasses springing up in great sculptural clumps.



Water levels will vary according to rainfall, with raised walkways allowing passage in all climatic situations. The walkways will form sitting spaces at interesting points, in conjunction with large scale areas of planting.

This idea of creating activities in a continuous landscape around buildings is important to the enjoyable experience by people of Heslington East as a place of continuous nature in which people take part.



J. Conclusion

The Master Plan and Strategic Design Brief has been developed to ensure there is a coherent approach to the site and design of the campus extension at Heslington East. The document sets the development in context and provides a high level account of the principles underpinning the long-term vision for the site. It identifies the key activities that will be accommodated on the site, the ways in which the landscape and buildings will develop, and the pattern of physical movements proposed. The document indicates how the University will comply with key planning conditions associated with the Secretary of State's Decision. Some important, initial design guidelines are identified, which will be developed further over time.

The document is likely to be used by a number of different groups including:

- The University community;
- Statutory bodies, including the City of York Council, the Regional Assembly and Yorkshire Forward;
- Designers who will be responsible for developing the detailed master planning of Cluster 1 and future phases.

Different groups will make use of the Master Plan and Strategic Design Guide in different ways: for information, to chart progress over time against the vision, and in the case of the Local Authority as background to more specific reserved matter planning submissions to which they will be asked to give formal approval.

The Master Plan and Strategic Design Brief has been developed over the period 2004-8, and reflects the University's ambitions. Over the coming months and years it will be supplemented with additional Cluster master plans, such as that prepared for Cluster 1.

It is not intended to be prescriptive to the design of buildings and spaces but to form a guideline of how spaces, landscapes and buildings come together to achieve the overall physical goal of "intermingling activities within a landscape setting".

The framework is based on strong cognitive aspects of the experience as a pedestrian and ultimately creating a comfortable and enjoyable experience for those who will visit and use Heslington East. The overall plan emphasises the linkages, both physical and visual, with Heslington West, the local community and surrounding landscape. The Cluster 1 design acts as a pilot for the guidelines for the designers of the buildings and landscape spaces of future Clusters. A similar scale for future campus clusters has been determined, which will follow similar guidelines to create a cognitive experience across Heslington East. It also looks to stimulate creative responses in the architecture and the landscape to give a richness, rather than relentlessness to the overall experience of Heslington East upon completion.



Heslington West Campus

Appendix 1

External Lighting Requirements

Lighting will generally be designed to BS 5489 Part 1 2003 and BS EN 13201. The following lighting categories will be adopted on Heslington East:

- main access road from Field Lane will be designed in accordance with the lighting requirements of BS 5489 Section 7 – Lighting of traffic routes;
- cycle way routes to BS 5489 Section 9 - Lighting of subsidiary roads and associated areas, footpaths and cycle tracks and ILE Technical Report No 23 (Lighting of Cycle tracks);
- the movement spine to BS 5489 Section 9 - Lighting of subsidiary roads and associated areas, footpaths and cycle tracks,
- service roads to BS5489 Section 9 - Lighting of subsidiary roads and associated areas, footpaths and cycle tracks;
- car parks to BS 5489 Section 10 - Lighting of urban centres and public amenity centres;
- footpaths to BS 5489 Section 9 - Lighting of subsidiary roads and associated areas, footpaths and cycle tracks;
- public areas to BS 5489 Section 10 - Lighting of urban centres and public amenity centres
- sports fields and training pitches – lighting requirements for sports activities vary considerably with the type of sport and the level at which it is played. Sports lighting is an area where particularly careful consideration is required as generally the mounting height of the flood lighting towers can be 15 metres high and the light levels will stand out in the surrounding areas; and

- floodlighting/feature lighting – consideration will be given to the lighting of landscape areas, the lake and prominent buildings. The lighting intensity will be assessed for each feature. It will be necessary to ensure that light trespass and light pollution is kept to a minimum while retaining appropriate lighting levels to maintain a secure environment.

Visual impact of lighting

The mounting height and cross sections of columns will be kept to a minimum consistent with achieving the required lighting levels and with a reasonable spacing to avoid clutter of street furniture. Careful consideration will be given to the proposed mounting heights of lighting columns to ensure they are of an appropriate design to blend in with the surrounding buildings and landscape areas. To limit the effect of direct glare and light pollution from luminaires, where practicable they will be provided with full cut off distribution. This will apply particularly to the main access roads leading to the site from Field Lane. The lighting should be constructed to minimise glare and light pollution on views from Heslington village, in particular on the movement spine.

Lighting mitigation

Any adverse effects associated with lighting will be considered at the design stage. By selection of the right equipment in terms of mounting height and utilising luminaires with good optical control, it will be possible to minimise the impact of the proposed lighting on surrounding areas.

Appendix 2

Other documents to be read with this brief, with dates of approval by City of York Council. The figure in brackets is the outline planning condition fulfilled.

- i) Traffic Surveys thorough named junctions methodology: July 2008 (6)
- ii) Sustainable Travel Plan: September 2008 (8)
- iii) On-street Parking Survey Methodology: September 2008 (10)
- iv) Landscape Design Guidelines: August 2008 (12)
- v) Landscape Management Plan: July 2008 (13)
- vi) Construction Environmental Management Plan: July 2008 (14)
- vii) Environmental Site Management Plan: August 2008 (15)
- viii) Sustainable Drainage Scheme: July 2008 (19)
- ix) Foul Drainage Strategy: July 2008 (20)
- x) Noise Baseline Survey: July 2008 (21)
- xi) Archaeological Remains Management Plan: July 2008 (26) [Written Statement of Investigation: July 2008]
- xii) Earthworks Method Statement; July 2008 (35).