

University of East Anglia
Development Framework Strategy

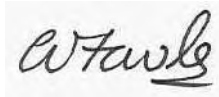
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QUALITY ASSURANCE

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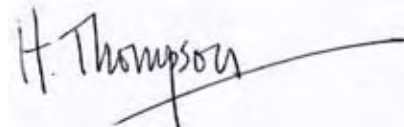
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Vision

In order to meet its brief, the Development Framework Strategy must meet five key criteria:

Regional Economy

To facilitate the growth of the University, particularly with respect to its contribution to the economic, social and cultural development of the City and the wider region.

Need

To meet the current and future higher education and research needs of the University Community in terms of the physical layout and design of the Campus, as well as the provision of exceptional facilities.

Values

To meet the core values of the University: Excellence, Interdisciplinarity, Creativity, Citizenship, Community and Sustainability.

History

To respect the strong history of the University site and the significance of its design.

Built Form and Landscape

To respect the University buildings and their landscape setting, particularly sensitive elements such as Earlham Park and the Yare Valley.

Executive Summary

IMPORTANCE OF UEA TO NORWICH AND THE REGION

Since its founding in 1960 the University of East Anglia has grown steadily and now plays an important part of Norwich's economic, social and cultural life, as well as being one of the country's leading universities with a worldwide reputation for teaching and research.

The future success of the University relies on continuing development in academic activities and student numbers. This, in turn, relies on constant adaptation and expansion of the University's buildings and estate in order to remain competitive with other academic institutions and continue to attract funding and skills into Norwich.

UEA's Importance to Norwich and Beyond

UEA's presence in the City has significantly contributed to Norwich's recent economic, social and cultural growth. The University employs over 2,500 staff – more than 1,000 are academic, with administrators, support, technical and general staff amounting to just over 1,500. In addition, it is estimated to be responsible for the indirect employment of a further 3,000 people.

UEA has an estimated annual income of £170 million, generating a direct and indirect economic impact of around £420 million (Source: Norwich Research Park, 2010).

It is widely acknowledged that UEA is a world leader in creative/cultural learning and writing, life and environmental sciences and the business/enterprise aspects of applied research.

UEA's Role in the Norwich Research Park

UEA is an integral part of the Norwich Research Park (NRP), a co-operative of world-class research facilities, providing jobs for over 9,000 staff and 1,000 research students and is one of the East of England's most important 'engines' of growth and prosperity.

UEA (aka NRP East) performs the role within NRP of the development of science, teaching and research and, in particular, to produce the scientists and researchers to 'feed' business and enterprise.

Provision is already made for the expansion of research at NRP West but yet to be made for the expansion of NRP East (UEA). The University is not just important, but essential, to a thriving Norwich. For Norwich to continue to flourish and to enable the City to advance its economic, social and cultural standing it needs to be supported by a successful and thriving UEA. For it to thrive, provision must be made to allow UEA to grow to be able to cement and enhance its reputation as a world class university.

WHAT IS THE DEVELOPMENT FRAMEWORK STRATEGY (DFS)?

The DFS is a process that assesses the need for growth, tests different options for accommodating it, and translates this into preferred development areas to help inform the Local Development Framework (LDF) process.

Why are we producing a DFS?

The current UEA development boundary is tightly defined in the current City of Norwich Replacement Local Plan (2004). The Local Plan acknowledges that the University would, at some point, outgrow the defined area and UEA has now reached that point. To meet its future growth needs, UEA has to rationalise its existing estate and identify new areas for future development.

Planning Policy

The City of Norwich Replacement Local Plan (2004) is currently being replaced by a Local Development Framework (LDF) which will guide development at UEA and the rest of Norwich up to 2026.

The Local Plan (2004) allows development within the defined Campus as long as certain views are protected. The Local Plan suggests the need for a masterplan to provide the context for future development at the University.

The emerging LDF promotes Norwich as a 'Learning City'. It supports the development of Enterprise Hubs at UEA and anticipates the expansion of health, higher education and science park activity at UEA.

The Proposed Masterplan

Work has proceeded in close collaboration with Norwich City Council and a Steering Group was set up to support and help steer the process. The masterplan suggested by the current Local Plan will be made up of three core types of document:

- The Strategic Development Principles Document (Bidwells, April 2010) which highlighted on-Campus development as the best option for future development at UEA;
- The Development Framework Strategy (this document); and
- Detailed Development Briefs for areas highlighted within the DFS (still to be undertaken).

The Conservation Development Strategy, the Landscape Strategy, the Estates Development Strategy and the Travel Plan make up a portfolio of documents informing the DFS and included as part of the overall Development Strategy.

WHY THE UNIVERSITY IS GROWING

UEA has grown considerably since its foundation in 1960 as it has developed into a university with a national and international reputation. Central Government has encouraged this growth and still wishes to create more university places.

Future growth is therefore needed to ensure that the increasing demands for state of the art teaching and research facilities are met and to provide teaching, research and residential accommodation that is fit for purpose.

UEA needs to plan for growth despite the current economic and funding uncertainties. The DFS looks forward for the next 20 years and beyond. Any solution must have the flexibility to take advantage of unplanned growth or 'Advancement' opportunities, i.e. unplanned opportunities for funding for specific purposes (e.g. new schools / faculties). Funding will become available for growth at UEA; the DFS will help ensure that growth is managed appropriately.

What is Growth?

UEA growth is primarily related to UEA's core activities of teaching, teaching-related research, student accommodation, student support, administration, estate management and UEA Business Development.

Growth, for the purposes of the DFS, does not include that related to commercial research, the Norwich and Norfolk University Hospital (NNUH) and 'out of Norwich' UEA related developments such as at University Campus Suffolk.

The University has made estimates for its predicted growth based on these needs and from historic growth trend. It is estimated that the University will require approximately 100,000 sq m of new internal space within the foreseeable future.

THE DEVELOPMENT FRAMEWORK STRATEGY

The DFS is one of a suite of documents that will become the masterplan for UEA. The masterplan is founded on the long established UEA principle of interdisciplinarity so that undergraduates and researchers can benefit by mixing with students of other disciplines and from widening their areas of study. In order to be effective, departments, facilities and accommodation must all be within easy walking distance.

The purpose of the DFS is to:

- Locate appropriate spaces for new development within the current defined Campus;
- Identify potential future development areas on adjacent land; and
- Identify existing urban design issues within the Campus.

Principles of Potential New Development Areas:

- All development should fall within approximately a 500 metre distance of the centre of the Campus to allow students to move easily and quickly between different faculties and facilities;
- Materials must complement the built and natural surroundings of the Campus and its Yare Valley setting;

- Sustainability must be core to the design of buildings and their use;
- Any development must manage the amount of storm-water run off and not adversely affect the drainage of the Yare Valley;
- Biodiversity must be protected where possible and any unavoidable impacts mitigated against; and
- Any new development must be accessible to pedestrians and cyclists and must accord with the principles set out in the Travel Plan or any superseding document.

An assessment of the future needs of the University has shown that there will be a requirement of approximately 55,000 sq m of net internal floor area up to 2030. In addition, there is the potential requirement for at least another 25-50,000 sq m for proposed new schools and associated student residences. These are likely to come forward beyond 2030. Potential buildings within the existing defined Local Plan Campus boundary could provide approximately 30,000 sq m of internal floor area of the minimum required total of 55,000 sq m. The shortfall and any new schools or 'Advancement' opportunities will need to be accommodated outside of the existing Campus boundary in new development locations.

DEVELOPMENT LOCATIONS, PHASING AND MITIGATION

The phasing of the development locations will be dependant upon funding availability and development needs. It is therefore very difficult to predict an exact phasing schedule, particularly over a 20 year period and beyond. However, the DFS anticipates that development opportunities within the existing Local Plan defined Campus boundary will continue to come forward over the next 10 years, after which time such opportunities will be very limited.

Earlham Hall and the former Blackdale School are now owned by UEA and, subject to obtaining planning permission, are expected to accommodate UEA growth from around 2011/12. The area towards the Broad is expected to come forward later in the period if current growth trajectories continue. However, all growth locations, including the area to the Broad, need to have the ability to be brought forward for development when funding becomes available or where particular uses require a specific location, e.g new student accommodation, or departments.

Earlham Hall and Surrounds

Earlham Hall is a Grade II* listed building set in formal gardens with an adjacent area of vacant land. It is located in Earlham Park, an important area of open space in the City.

The Hall is currently occupied by the University Law School but has also been identified as a suitable location for the Business Enterprise Centre identified in the NRP Vision document.

It is proposed to use the currently vacant area adjoining the Hall for sympathetic

development, which could provide approximately 10,000 sq m of building space, 4,000 sq m of which is likely to be take up by a proposed Business Enterprise Centre.

Potential Improvements

Mitigation measures relating to potential development at Earlham Hall will likely involve improved public access to the Hall and Park and restoration work to the existing listed buildings. New development will need to take account of, and be sympathetic to, the Hall and its Parkland Setting.

The Former Blackdale School Site

UEA acquired the former Blackdale School site from Norfolk County Council in 2008. The site is currently occupied by a single-storey, flat-roofed building with former playgrounds, hard standing and playing areas.

It is proposed that this building be demolished and replaced with a series of purpose built University buildings. There is also potential to use this development to improve the bus and vehicle access onto Bluebell Road. The site would yield approximately 10,000 sq m of building floor space.

Potential Improvements

Mitigation relating to the former Blackdale School Site is likely to involve the provision of public access to and the management of Blackdale Plantation. It may also include possible provision of public open space and planting to respect the setting of Bluebell Road.

Land Between Suffolk Walk and Bluebell Road

The original Lasdun masterplan for UEA showed development in this area extending as far south as the Broad. It is now considered, however, that this is not appropriate in the current context and, therefore, a smaller area is proposed for development.

It is suggested, however, that an exemplar building could be located within the area facing the Broad, built to the highest environmental and architectural design standards, creating a focal point.

The site could provide the outstanding floor space requirements as well as a possible location for an exceptional 'Advancement' opportunity.

Potential Improvements

Mitigation for this site is likely to involve opening up of new areas to compensate for the loss of public open space and the protection of existing habitat areas. Controls will be placed on parking and vehicular access. Any detailed design briefs will need to ensure that buildings do not adversely impact panoramic views in the area.

More detail on the opportunities for improvement will come forward in the detailed design briefs for each of the potential development locations.



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1 Introduction

The University of East Anglia (UEA) was founded in 1960 and admitted its first students in 1963. It is now a large and successful university, drawing academics, students and visitors from all over the world and plays a central role in the economic and community life of Norwich and the wider area.

The mission of the University is the advancement of learning and the pursuit of knowledge, both to satisfy the aspirations of individuals and to contribute to economic, social and cultural progress at local, regional, national and international levels. The future success of UEA relies on continuing development of academic activities and growth in student numbers and this, in turn, relies on constant adaptation and expansion of the University's buildings and estate.

The University Campus is compact and densely developed. The area defined within the City of Norwich Replacement Local Plan (2004) as development land for the University is tightly constrained. The Local Plan acknowledged that the University would at some point in time outgrow the current defined development area. The University has now reached that stage. In order to meet its future needs for growth, the University has need to rationalise the existing estate and to identify more development land beyond the tightly defined area of the Local Plan.

PLANNING POLICY BACKGROUND

The identification of new development land will take into account the existing and emerging planning policy framework for the area. A review of the existing policies is required, including a consideration as to whether the framework is still relevant, robust and appropriate to help meet UEA's growth aspirations. Any suggested changes to the existing planning policy framework will be proposed through the preparation of this document. It is the intention of the DFS that Norwich City Council (NCC) will consider, and hopefully endorse, these suggestions as they prepare new policies and proposals for inclusion in the emerging Local Development Framework (LDF).

Existing Policy

The most relevant existing planning policy framework applicable to UEA is of the City of Norwich Replacement Local Plan (2004). Until recently, the East of England Plan was also considered relevant but has recently been revoked by the new Government.

Prior to its recent revocation, the East of England Plan provided the strategic spatial policy for the region and sub-regions within it. Policy NR1 acknowledged Norwich as a Key Centre for Development and Change. It was identified as a regional focus for housing, employment, retail, leisure, cultural and education development. UEA's importance to the area's economic strength was acknowledged and the Norwich Research Park (NRP), of which UEA forms the eastern part, was identified as a focus for employment growth.

The City of Norwich Replacement Local Plan (2004) provides the planning policy context for proposals submitted within the City administrative area including UEA. The 'saved' policies of the plan, including those relevant to UEA remain in force until replaced by LDF policies. The main planning policy context is explored in more detail in the Strategic Development Principles Document produced by UEA (April, 2010).

The key Local Plan policies relevant to UEA's future development are:

- EMP20, which allows for development within the University Campus, provided that key views are protected, particularly north from Constable Terrace towards Violet Grove, south from the Norfolk and Suffolk Terraces and from Union Square. It also states that the visual setting of the southern elevation of the Prospect must be protected when viewed from the river valley and Bluebell Road; and
- NE1, which seeks to protect the river valleys of the Yare and Wensum from inappropriate development.

The Local Plan also suggests the need for a masterplan to provide the context for new development. The original intention was for Norwich City Council and South Norfolk Council to prepare a masterplan (or joint Area Action Plan) for the wider NRP Area, including UEA, crossing the boundary into South Norfolk. However, the two Councils have decided not to follow the joint Area Action Plan

route. Instead, the City Council has endorsed an approach that enables the University to prepare its own masterplan to inform Norwich City Council's LDF. A masterplan for the rest of the NRP in South Norfolk will also be prepared, led by South Norfolk Council.

Emerging Policy

The City of Norwich LDF will consist of a Joint Core Strategy, a Site Allocations document, Development Management Document and supporting material (Supplementary Planning Documents). The LDF will eventually replace the City of Norwich Replacement Local Plan.

Joint Core Strategy

The main strategic LDF document being produced is the Joint Core Strategy (JCS). The JCS is a collaborative venture being prepared under the auspices of the Greater Norwich Development Partnership (GNDP). The GNDP comprises Norwich City, South Norfolk and Broadland District Councils, Norfolk County Council and the Broads Authority. The JCS will establish the strategic policy for the three District Council areas.

The emerging JCS does not include a specific UEA policy, but it acknowledges the need to promote enhancement of UEA's education facilities to help promote Norwich's role as a "learning city" (Policy 7). It also includes support for enterprise hubs at UEA (Policy 5). The JCS also anticipates significant expansion of health, higher education and, in particular, science park activity at the University of East Anglia / NRP (Policy 9). The JCS is anticipated to be adopted early in 2011.

City of Norwich LDF Site Allocations and Development Management Policies

The JCS will be followed by a Site Allocations Document and a Development Management Document. These documents will allocate new development land and include site specific and more generic policies. The Site Allocations and Development Management Documents are anticipated to be adopted in 2012.

THE DEVELOPMENT STRATEGY DOCUMENTS

The Development Strategy is made up of a suite of documents falling within two main groups:

- the Masterplan; and
- Other Supporting Documents.

The Masterplan

UEA's Masterplan is being prepared in three stages:

1. Strategic Development Principles Document (Bidwells, May 2010);
2. A more detailed Development Framework Strategy (this document); and
3. Detailed Development Briefs for each of the new development areas.

Stage 1: Strategic Development Principles Document

The UEA Strategic Development Principles Document was published in May 2010. The document sets out and explains UEA's approach to considering the different 'strategic' options for accommodating its future growth.

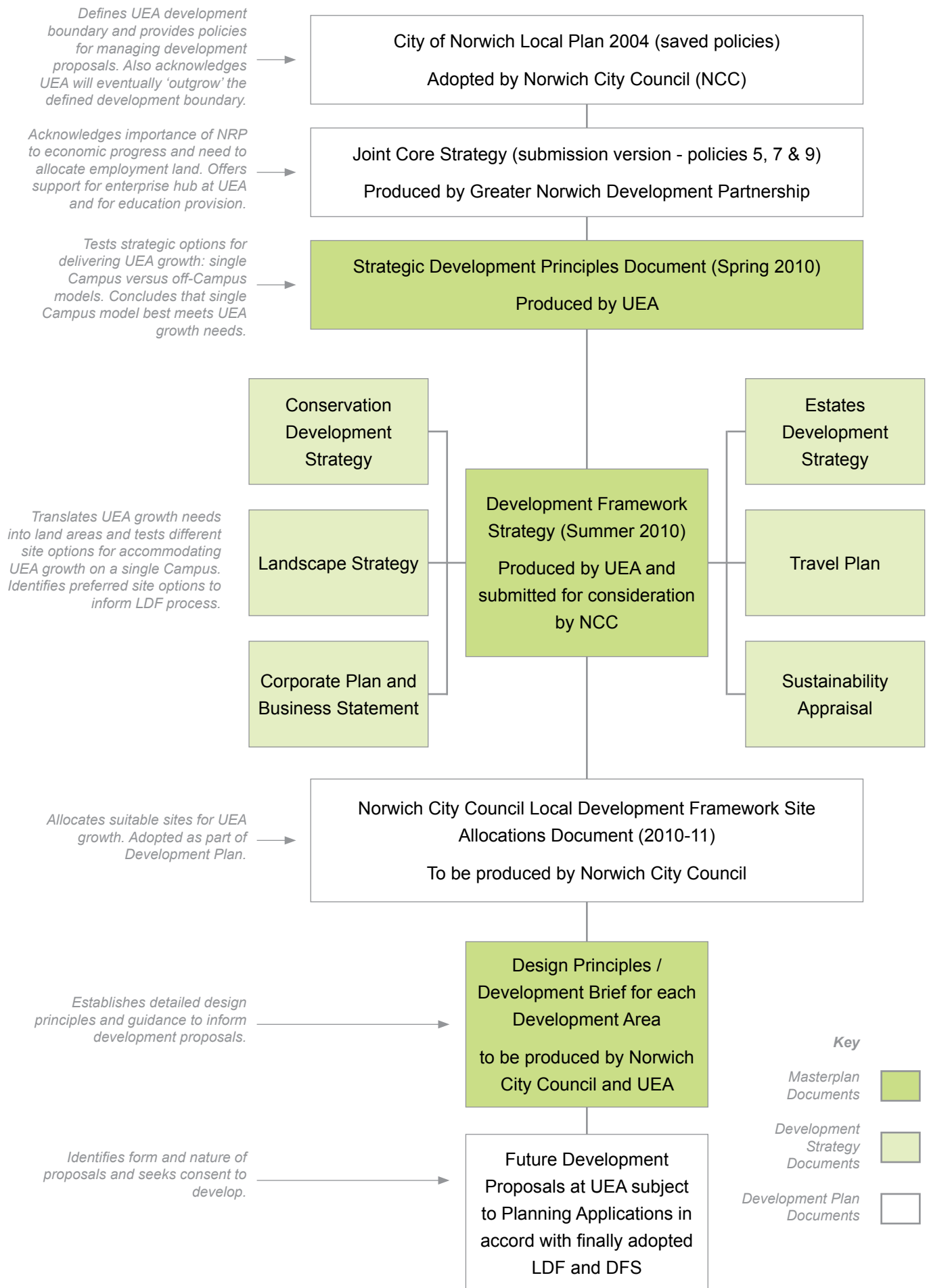
Two strategic options were considered and tested for their ability to meet UEA's growth needs and requirements: "Single Campus" and "Off Campus". The "do nothing" option was also considered.

The Strategic Development Principles Document's testing process concluded that the continuation of the "Single Campus" model is the most appropriate solution to deliver UEA's growth targets and allow it to remain as a nationally and internationally recognised university, following its well-established and successful interdisciplinary tradition.

The document and results were subjected to a Sustainability Appraisal, conducted by Norwich City Council Officers. The Sustainability Appraisal also confirmed that the "Single Campus Model" performed well in contributing to sustainable development, particularly in addressing social, economic and accessibility objectives, although it also acknowledged that issues did exist with the single Campus option and that mitigation would be necessary. The Sustainability Appraisal also concluded that a number of environmental objectives can only be considered once the potential site options are known. These objectives have been considered and taken into account in the preparation of the more detailed Development Framework Strategy (DFS).

Both documents, the Sustainability Appraisal and the Strategic Development Principles Document, were issued for a focussed consultation in March 2010. The majority of respondents to the consultation broadly supported the Single Campus Model, although some supporters had qualified concerns, mainly related to the potential choice of sites.

Diagram Demonstrating How the Documents Fit Together



The Final Strategic Development Principles Document, including amendments responding to consultation responses, has been presented to NCC as evidence to help inform the Council's LDF process.

Although the Strategic Development Principles Document made the case for the retention of the "Single Campus Model" for future development of UEA, it also acknowledged that within the "Single Campus model", there are different sub-options for accommodating growth.

For instance, development may be in the form of the following:

- Intensification of existing uses, e.g. additional dual use of facilities;
- Demolition and rebuilding at higher density;
- Infill of under used and undeveloped areas;
- New development locations within UEA's ownership and/or control and within approximately five minutes' walk / 500 metres of the Registry buildings; or
- A combination of some or all of the above.

Stage 2 - Development Framework Strategy

The DFS builds on from the Strategic Development Principles Document. It considers the amount of space needed to accommodate UEA's projected growth. It tests the different sub-options for accommodating growth, with particular reference to their performance in delivering UEA's requirements, viability and also in sustainability terms.

An important part of the DFS process is to consider and test the existing planning policy framework for its continued relevance and appropriateness. The process will provide Norwich City Council with robust information and reasons should any suggested changes to the existing planning policy framework be proposed. Norwich City Council will be invited to consider these suggestions as it prepares new policies through the LDF process.

The final DFS will express in one document UEA's aspirations for spatial development over the foreseeable future. It will qualify and quantify the currently known amount of development space required to meet UEA's growth ambitions. It will also make an allowance for 'Advancement' opportunities, i.e. sudden unplanned opportunities for funding (e.g. new schools/faculties) which, by their nature, are unknown and unquantifiable but which support and enhance the core purpose of the University. The DFS will identify the preferred development locations to accommodate growth, the proposed phasing of growth and mitigation. The DFS will also be subject to a Sustainability Appraisal and public consultation.

The final DFS (along with the Strategic Development Principles Document for the delivery of the UEA Business Plan) will be submitted to Norwich City Council to inform the LDF process (specifically the Site Allocation Development Plan Document).

Stage 3 More Detailed Development Briefs

Potential development locations identified in the DFS will be considered by Norwich City Council, which will decide which to endorse. Sites incorporated into Norwich City Council's LDF after this process will be taken forward and individual development briefs will be prepared to guide the detailed development of planning proposals. These will be prepared in conjunction with Norwich City Council.

Other Supporting Documents

The Masterplan documents are supported by a suite of other documents, including the Strategic Development Principles Document, the DFS (this document) and individual development briefs which will, alongside the Conservation Development Strategy, the Estates Development Strategy, the Landscape Strategy and the Travel Plan, form the UEA Development Strategy for the next 20-30 years.

All of the documents build upon the UEA Corporate Plan (2008-2012) and the Business Statement - UEA Towards 2030. These contain the key vision and objectives which the Development Strategy will address.

A summary of the key documents is included below and details of the relevant documents are included in Appendix 3.

UEA Corporate Plan (2008 - 2012)

The Corporate Plan sets out the Mission Statement and Vision of the University for its future development. It then sets out key objectives and strategies to achieving that Vision. The document sets out its Vision as:

- **Understanding** - To advance understanding through research, scholarly communication and research-led teaching, underpinned by a commitment to excellence, interdisciplinarity and creativity;
- **Empowerment** - To empower our students by providing an exceptional education - and a wider experience that is second to none - equipping them with marketable skills and preparing them for global citizenship;
- **Action** - To respond to the grand challenges of the 21st Century through the fruits of our research, the talents of our graduates, our engagement with policy-makers, businesses and communities, and our undertaking to be sustainable.

The objectives are set out in Appendix 3 of this document.

UEA Business Statement - Towards 2030

The Business Statement 'UEA Towards 2030' provides more detail of how the Corporate Plan's vision will be implemented and how UEA may develop over the next 20 to 30 years and for what it should be planning.

Landscape and Conservation Development Strategies

The Landscape and Conservation Development Strategies provide detailed information regarding the historic evolution of the Campus and a detailed analysis of the issues at hand. The DFS does not seek to replicate the information contained within those documents but rather to provide a strategic framework based upon it. It is, therefore, important that the DFS is read in conjunction with those strategies before any detailed development proposals are formulated.

Estates Development Strategy

The Estates Development Strategy sets out strategic objectives for growth, seeking to optimise development opportunities within the current built estate, to unlock the unrealised opportunities of the Lasdun masterplan and to target enlargement of the University site. It identifies proposed locations for buildings with and without planning permission that will contribute to achieving the objectives set out in the Business Plan - Towards 2030. The Estates Development Plan is now out-of-date and will be superseded by the DFS.

Sustainable Travel Plan

UEA adopted its Travel Plan in 2002 which was updated in 2006. The award winning plan aims to be a living document that is monitored and updated at regular intervals of not less than five years.

The travel plan aims to reduce private motor car use and its impacts and promote alternative travel choices. The aims are supported by a number of objectives and planned actions, amongst them:

- Promoting and encouraging walking and cycling;
- Promoting and encouraging the use of public transport;
- Facilitating the safe use of motorcycles;
- Managing car parks and vehicle movements to reduce demand whilst ensuring that the needs of essential car users are met and that on-street parking is reduced;
- Reviewing working practices to reduce the use of private cars for work related journeys and travel at times of highest traffic;
- Ensuring sustainable transport issues are addressed when commissioning or refurbishing University buildings;
- Investigating and developing in-house transport services to satisfy demand which cannot be met by existing providers; and
- Partnership working with all tiers of local government, transport providers and other relevant organizations to ensure the compatibility of the Travel Plan with other externally organised traffic management initiatives.

The Plan is currently under review, (a new transport policy is currently under consultation), and will be the tool by which future transport growth is managed. For example, a key aspiration to support the growth of NRP is the development of a direct bus service from the Campus to Colney Lane to improve the linkages between NRP, the City and the surrounding area. Other documents relevant to the Development Framework Strategy are explored in greater detail in Appendix 3 of this document.

DEFINITIONS

For the purpose of the DFS, the following definitions have been employed:

Growth

UEA growth for the purpose of the Strategic Development Principles Document and DFS is growth primarily related to UEA's core activities of teaching, teaching-related research, student accommodation, student support, administration, estate management and UEA business development. There is also a need to not only take account of the planned/known growth, but to have the flexibility to take account of "Advancement" opportunities i.e. unplanned opportunities for funding for specific purposes (new faculties and areas of research).

The growth definition excludes the growth related to commercial research, Norfolk and Norwich University Hospital (NNUH) and 'out of Norwich' UEA related developments such as at University Campus Suffolk. Commercial research is not reliant on the UEA support structure in the same way that UEA core activities are and can, for the purposes of the DFS, be considered a separate entity. UEA has a site safeguarded in the South Norfolk part of the NRP, the "Triangle Site", to accommodate UEA commercial research activity. UEA growth related directly to the NNUH, such as the School of Nursing and Midwifery (NAM), which required a location close to the hospital for operational and functional reasons, is also excluded.

Campus

The starting point for the definition of UEA's Campus is the area defined as "University Campus" in the City of Norwich Replacement Local Plan (Adopted 2004)(see extract of proposals map in Appendix 1).

The Local Plan definition covers the core University buildings, but excludes ancillary land in UEA's ownership/control, such as the playing fields and landscaped areas, river valley and other land and buildings, including Earlham Hall, the former Blackdale School and the SportsPark. The Adopted Local Plan acknowledges that the definition is tight, and that in all likelihood, UEA would outgrow the defined "University Campus" boundaries, perhaps as early as 2008.

Moving forward, the area defined in the Local Plan as 'University Campus' needs to be reconsidered in light of the original UEA single Campus philosophy. The original principle being that UEA was laid out to ensure all the main buildings and teaching, research and support activities were located within

a short walking distance. Over time this principle has had to adapt to take account of UEA growth. The principle now is that all main buildings and teaching, research and support activities should look to be located within approximately a five minute / 500m walking distance of a central point, taken to be in the vicinity of the Registry building.

Study Area

The study explores the wider Campus area when assessing the suitability of sites for future development, incorporating Earlham Hall, the former Blackdale School site, the SportsPark and the area as far south as, and including, University Broad and the River Yare.



2 The Importance of UEA to Norwich and the Region

UEA'S IMPORTANCE TO NORWICH AND BEYOND

Since its establishment in the early 1960s, UEA has enjoyed almost 50 years of successful growth and expansion, enhancing its reputation to become a world class research university. There is no doubt that UEA's presence in the City has significantly contributed to Norwich's recent economic, social and cultural growth.

UEA's presence has enabled Norwich to attract many young skilled workers to the area and, importantly, helped retain them locally. UEA's graduate retention rate is the second highest in the country at around 40%. It means the City has a skills base that would not, otherwise, be available and gives it a higher proportion of young, economically active people compared to much of the UK.

It is widely acknowledged that UEA is a world leader in creative writing and life and environmental sciences. The intellectual capital brought to the City by having UEA in it cannot be underestimated. It has provided a rich vein of researchers and scientists, as well as talented and creative people, that have been integral to the City's growth into the knowledge economy and expansion of its creative industries. The University has also provided job and learning opportunities for local people already living in the City.

UEA currently employs more than 2,500 staff – around two thirds of whom are full time and one third part time. More than 1,000 members of staff are academic, including around 400 researchers. Administrators, support, technical and general staff make up just over 1,500 in total.

UEA has an estimated annual income of some £170m and is estimated to be responsible for indirect employment of approximately 3,300 people, generating a direct and indirect economic impact of around £420m (Source: Norwich Research Park, 2010).

UEA has approximately 15,000 students and the Campus provides accommodation for 2,600 students, with a further 700 students at University Village; 14 students live with family in Suffolk Way Family House; 120 students live at Mary Chapman Court and 12 at Bowthorpe Family House. Around 450 international students are accommodated within the International School. All other students live off Campus with parents or in private rented accommodation throughout the city, particularly in Bowthorpe, Mancroft, Nelson, Thorpe Hamlet, Town Close, University and Wensum wards. Recent estimates by the City Council indicate that approximately 3% of the total housing stock in Norwich is currently occupied by students. This varies between wards, the highest percentage being in Nelson Ward at approximately 9% of the housing stock.

UEA IN THE COMMUNITY

The benefits UEA provides to local neighbourhoods also need to be recognised. It provides a range of full and part time job and learning opportunities for local people. It also provides health and other facilities accessible by local people.

CUE East

CUE East, or Community University Engagement East, is one of six higher education national Beacons for Public Engagement, created as part of the National Beacons for Public Engagement Initiative. The Beacons aim to assist University staff and students to engage with the public. The Initiative was founded by the Higher Education Founding Councils and has the following objectives:

- Create a culture within higher education and research institutes and centres where public engagement is formalised and embedded as a valued and recognised activity for staff at all levels and for students;
- Build capacity for public engagement within institutions and encourage staff at all levels, postgraduate students, and undergraduates where appropriate, to become involved;
- Ensure higher education institutes address public engagement within their strategic plans and that this is cascaded to departmental level;
- Create networks within and across institutions, and with external partners, to share good practice, celebrate their work and ensure that those involved in public engagement feel supported and able to draw

on shared expertise; and

- Enable higher education institutes to test different methods of supporting public engagement and to share learning.

Cue East undertakes the following forms of community engagement:

- **Communicating knowledge and enriching cultural life**

e.g. public lectures, media work, writing for the non-specialist, exhibitions, show casing academic know-how, pro-bono schemes, communicating research to the public, acting as the lead for major festival themes, contributing to the organisation and delivery of engagement activities.

- **Providing a service and being in dialogue with the public and communities**

e.g. volunteering, promoting and employing user involvement in research and the co-production of research, forums, focus groups, seminars and debates that involve the public, pro-bono schemes, drama outreach, museums, continuing education and lifelong learning, contributing to the organisation and delivery of engagement activities.

- **Being in dialogue with the public and policy-makers**

e.g. governmental committees involving the academic as the 'expert' such as an expert panel, government led public consultation and task forces, and active membership of professional bodies.

Earlham Academy

The University is to become a co-sponsor in the community-led initiative aiming to transform Earlham High School into an Academy. The University will be working with City College Norwich, Norfolk County Council, Norwich School and the governing body of Earlham High School. UEA will provide academic support for the Academy's specialisms and work with City College Norwich to encourage as many of the students as possible to make the transition to university.

UEA SportsPark

The SportsPark is an extremely successful venture, accommodating 1.3 million visitors per year, including students and the general public. Usage of the SportsPark increased by 12 per cent last year making it the largest community sport facility in Britain, as well as being entirely self financing (Norwich Evening News 4th April 2010).

The Sainsbury Centre for Visual Arts

The Sainsbury Centre is a museum and gallery housing the Sainsbury Collection and set in a distinctive building, designed by Sir Norman Foster. The Sainsbury Centre is open to the general public and attracts approximately 40,000 visits per year, 10,000 of which are from school groups.

UEA'S ROLE IN THE NORWICH RESEARCH PARK

UEA is an integral element of the Norwich Research Park (NRP). The NRP is regarded as one of the Greater Norwich sub region's most important 'engines' of growth and prosperity.

The NRP is a co-operative of world-class research facilities including UEA, the Norfolk and Norwich University Hospital (NNUH), the John Innes Centre (JIC), the Institute of Food Research (IFR) and the Sainsbury Laboratory. Collectively, the organisations provide jobs for over 9,000 staff and a further 1,000 research science students. It specialises in research into health, food, environmental sciences, computer/IT systems and chemistry. It is estimated to be responsible for over 5,500 direct and indirect jobs, contributing around £420 million to the local economy.

NRP comprises two parts: NRP East (UEA) and NRP West (NNUH, John Innes, IFR, Sainsbury Laboratory and 55 hectares of expansion land). The two parts, although inextricably linked, are different in some regards:

- NRP East (UEA) is focussed on teaching and teaching related science and research and the support for that teaching and research (student accommodation, welfare, social and health facilities, etc). The philosophy of interdisciplinarity is the primary driver for the UEA's teaching and research. UEA's primary role within the NRP is the development of science, teaching and research and, in particular, to produce the scientists and research to 'feed' the other constituent parts of the NRP. UEA is also looking to increase its role in the business application of research, through the development of its own business school and aspirations for a business centre at Earlham Hall.
- NRP West's primary focus is the commercial application of science and research as well as health care provision and teaching at the hospital.

The NRP partners, the local authorities and EEDA (the Regional Development Agency - soon to be abolished) have adopted a shared NRP Vision. The Vision draws together the three key elements of the NRP:

- The development of science and research;
- The business application of the fruits of that science and research; and
- The spatial development of the 55 hectares (the Triangle Site) that comprise the current allocation for development in the South Norfolk Local Plan.

The NRP Vision is for growth. The aspiration is for NRP to become a 'Next Generation' science park and a key engine of growth for the local and regional economy, providing an additional 5,000 jobs. UEA's continued success and growth is essential in delivering the shared Vision.

Provision is already made for the expansion of commercial and commercial linked research activity at NRP West through the allocation of 55 hectares of

land (the Triangle Site) in the South Norfolk Local Plan and the granting of permission for commercial research activity on the Triangle Site. Provision is yet to be made for the expansion of UEA, which will be the consideration of the City Council's LDF process.

CONCLUSION

UEA's importance to Norwich, the wider sub-region and local community can be summarised as:

Economic Factors

- Employment of staff from a wide range of abilities;
- Expenditure by staff in local area;
- Expenditure by students in local areas including in the private rented sector;
- Provision of relatively well paid employment opportunities in local economy;
- Construction project expenditure;
- Employment of construction professionals and workers;
- Expenditure on goods and services by University in the local economy;
- Payment of business rates / taxes;
- Spin-offs of research projects into the local and national economy;
- Provision of specialist training facilities;
- Provision of high quality residential conference facilities;
- Provision of facilities for development of seed bed ideas and their take up;
- Provision of linked courses and facilities to enhance the performance and development of nearby institutions e.g. NNUH, JIC, IFR;
- Attraction and development of highly qualified individuals potentially available for employment in the local and national economies and overseas;
- Availability of significant graduate labour pool continuously seeking employment as qualifications are achieved.

Social Factors

- Status of Norwich as an important university city – helping put Norwich on the map!
- Attraction for significant numbers of young people with ability into

Norwich;

- Attraction for significant number of highly qualified academics to Norwich;
- Attraction for students and academics from outside of UK into Norfolk;
- Retention of significant numbers of graduates in the area post qualification;
- Important centre of architectural interest –e.g. Lasdun buildings and Foster’s Sainsbury Centre.

Educational

- Availability of wide range of high quality, internationally recognised higher educational courses;
- Development of academic and vocational schools with world class reputations;
- Development of numerous research projects of international importance;
- Availability of specialised library and research facilities;
- Availability of wide range of specialist courses for part time students;
- Non vocational course provision;
- Contribution to journals, articles and debates on specialist subjects;
- Availability of qualified personnel to advise on specialist areas.

Community Involvement

- Availability of UEA facilities generally for community events;
- Availability of SportsPark and playing fields as regional and local sports, recreation and leisure facility;
- Availability of University grounds as local informal recreation facility;
- Provision of outreach courses into local community;
- Involvement of UEA academics and personnel on local organisations and bodies including local Councils and Non-Government Organisations;
- Involvement of UEA based people in local community generally by virtue of their place of residence;
- Availability of major art gallery at Sainsbury Centre with internationally recognised collection and continuously changing exhibitions;

-
- Prime venue for rock and pop concerts in Norwich area;
 - Venue for lectures and debates of local interest;
 - Venue for music and cultural events and the arts generally;
 - Student volunteering projects to local schools;
 - Teacher training placements to County schools;
 - University volunteering projects relating to environmental matters in and around Norwich.

Research

- Internationally renowned research, particularly on climate change and other sciences. With its pedigree and reputation, UEA is well placed to continue to forge forward, developing, expanding and innovating over the next 20-30 year period which the DFS will cover.

It is evident that UEA is not only important, but essential to a thriving Norwich. For UEA to continue in this role, provision must be made to allow it to grow, expand and adapt to enable it to cement and enhance its reputation as a world class university.



3 Assessment of Need

UEA is an integral part of the NRP, which is regarded as one of the Region's most important 'engines' of growth and prosperity.

UEA's own ambitions are for targeted growth, focussed on the key activities of teaching, research and business. In particular, the possible development of future new faculties or schools, including Engineering and Architecture Faculties and a Dentistry School. The ambitions are expressed in more detail in UEA's Business Statement 'UEA Towards 2030'.

UEA has been able to accommodate its recent growth within the area defined by the Local Plan as 'University Campus', but is now reaching the stage anticipated by the Local Plan when options for growth within the University Campus area are extremely limited and growth locations elsewhere need to be considered. The City Council's review of its planning policies through the LDF process is, therefore, very timely as it provides an opportunity to consider the different growth options.

In summary, UEA has been more successful than its founders could have anticipated in 1963 and has developed significantly in the period up to the present time. It is clearly well placed both academically and locationally for significant future expansion. However, in order to achieve this growth aspiration, land will inevitably have to be made available to accommodate additional educational buildings and the support infrastructure necessary to enable UEA to

grow in a planned and orderly fashion and maintain its position as a world class facility based in East Anglia.

CORPORATE PLAN (2008 - 2012)

The UEA Corporate Plan sets out the Mission Statement and Vision for the development of the University through a series of objectives and strategies. The objectives are outlined in Appendix 3 of this document.

UEA TOWARDS 2030

The draft business statement, UEA Towards 2030, provides more detail of how the Corporate Plan's Vision will be implemented, how UEA may develop over the next 20 to 30 years and for what it should be planning. The document does caveat this by saying that it is only one view of how the University should develop, but assumes that UEA, with its capital as an established and respected university with consistently high ranking in League Tables, is well placed to forge forward, developing, expanding and innovating over the next 20 to 30 years. Moreover, this expansion will complement the overall development of the Norwich Research Park (NRP), of which UEA forms the eastern part.

The document goes on to set out what can reasonably be expected as follows:

Teaching

- Some growth of student numbers is inevitable (with associated facilities);
- Conceivably, significant additional boosts to students numbers, through new academic disciplines e.g. engineering;
- The desire to enhance the student experience by increasing the student / staff ratio will place demands on existing administrative and teaching spaces and amenities; and
- The quality of the teaching space will need to be enhanced to maintain the University's standing and attract and retain the best staff and students.

What does this imply?

- 300-600 additional students needing on-Campus accommodation up until 2030;
- 60 extra academic staff needing offices;
- 10 – 15 support staff needing space, including laboratory technicians;
- At least one large science laboratory;
- A bespoke dental and/or engineering school;
- Associated additional student accommodation for the new schools;
- Additional seminar space; and
- Additional student social and meeting space.

Research

- UEA will benefit and complement the planned development of the NRP;
- All indicators are that research will grow, requiring new specialist facilities, staff and associated workspace; and
- The University is aspiring to double the income it received from research grants and contracts in 2007/2008 over the planning period.

What does this imply?

- Provision for additional post-graduates;
- 300 – 330 additional research staff with need for laboratory and office work space; and
- 20 – 25 associated support staff particularly technicians.

Enterprise and Engagement

- Universities are increasingly recognised as potential economic powerhouses;
- Start-up incubators, provision of advice and guidance and spin off companies present opportunities for realising the synergy between ideas and active economic development;
- This will require infrastructure in the form of offices and meeting spaces;
- The implication of an ‘Enterprise Exchange’; and
- A Business Enterprise Centre is being planned at Earlham Hall to help stimulate jobs to deliver the GNDP’s ambitious growth aspirations.

What does this imply?

- “Enterprise Exchanges” building with meeting suites and office space for about 40 staff; and
- Start up incubator space for new ventures.

Advancement

- This could be described as wind-fall development from benefactors advancing the work of the University and its partners; and
- Could include the establishment of a Cancer Research Centre, Engineering School or prestigious, academically orientated Conference Auditorium.

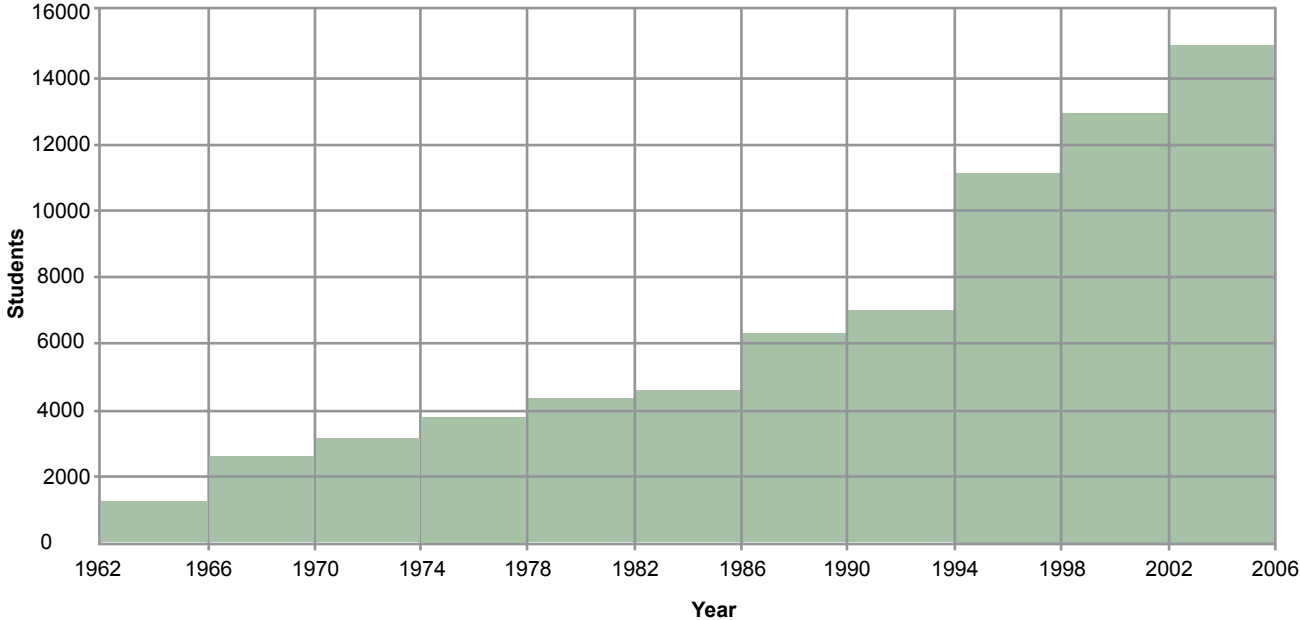
What does this imply?

- A significant Research Centre build (e.g. Cancer Research Centre); and
- A major prestigious academically-orientated concert/conference auditorium.

STUDENT NUMBERS

Student numbers have grown considerably since the first students were admitted in 1963. Numbers have grown from a little over 100 then, to nearly 15,000 now. The graph below shows the steady rise in student numbers since the early 1960s.

Student Numbers 1962-2006



The UEA Business Statement – Towards 2030 predicts that student numbers will inevitably grow, although to a moderate degree. Research undertaken suggests a moderate growth in student numbers of 1,000-2,000 until 2030. Not all of these students will be accommodated on-Campus. However, it is assumed that all first years will be offered a place in halls of residence on Campus which requires provision for accommodation for a further 300-600 students.

An assessment has been undertaken of the amount of space that the predicted new facilities would require, up until approximately 2030. These have been summarised into the table below:

Table 1 - Floor Space Needs as Identified in the Business Statement

Development Area	Approximate Required NIA (sq m)
Teaching	10,000
Accommodation	21,000
Research	20,000
Enterprise and Engagement	4,000
Advancement (Academically Orientated Conference Centre)	3,500
Total	55,000

In addition, the Business Statement raises the likelihood of other development possibilities, such as schools of Dentistry or Engineering, some of which may extend to beyond 2030.

Table 2 - Potential Additional Floor Space Needs as Identified in the Business Statement

Development Area	Approximate Required NIA (sq m)
Bespoke Dental School (including associated student accommodation)	10,000-20,000
Engineering School (including associated student accommodation)	10,000-20,000
Start-up Incubator Space for New Ventures	5,000-10,000
Other Advancement Opportunities	Advancement
Total	25,000-50,000 +

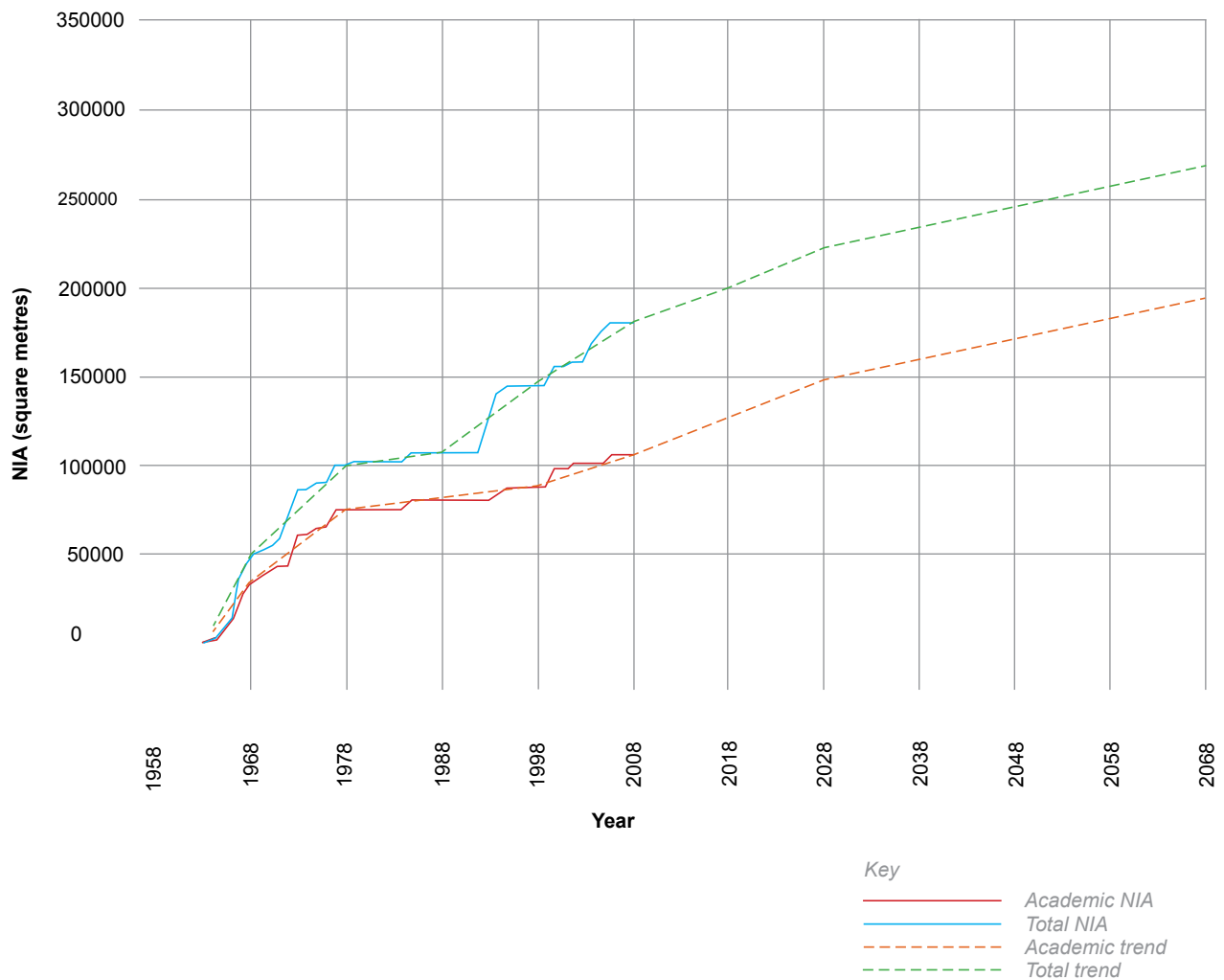
Tables 1 and 2 demonstrate that there is an identified need for approximately 55,000 sq m of net internal floor area up to 2030 to accommodate known development requirements. In addition, the Business Statement identifies other likely future growth areas within the University, as shown in the Table 2 above. These other uses are likely to amount to at least 25-50,000 sq m of net internal floor area, not including other potential 'Advancement' opportunities. It is possible that the needs identified in Table 2 may come forward before 2030.

EXTRAPOLATION OF HISTORIC GROWTH

The University, in order to plan for the future, has checked its estimates of development needs against growth levels in the past. This is represented in the graph below where the space available on Campus is plotted from the origins of the University in the 1960s to 2008. The growth trend between these two points is projected forwards into the future, to 2030 and then from 2031 to 2068, so that the predicted need for expansion can be extrapolated.

The graph, shown below, shows the projected internal area required by 2068 as approximately 270,000 sq m. There is currently approximately 180,000 sq m on site, which gives a requirement of approximately 90,000 sq m of additional space across the whole site between now and 2068. In the shorter term, the graph shows the area of net internal area required by 2030 as approximately 225,000 sq m. This gives a requirement by this date of approximately 45,000 sq m of net internal area. This broadly accords with the required areas identified in the Business Statement above.

UEA Net Internal Area



ESTATES DEVELOPMENT STRATEGY

The Estates Development Strategy was produced in 2008 and will be superseded by the DFS. The Estates Development Strategy provides the details for buildings with planning permission and other, 'aspirational', buildings that may be located within the existing built Campus. The details of these buildings are included in Appendix 4 of this document. It is considered that these buildings exhaust the supply of suitable sites within the existing defined Campus. It is considered that further development within the existing area defined as 'University Campus' within the Local Plan would adversely impact upon the setting of the listed buildings and impinge upon the significance of the Campus.

Table 3 below demonstrates the amount of net internal floorspace that can be provided by the sites within the existing defined University Campus.

Table 3 - Capacity Within the Existing Defined Campus

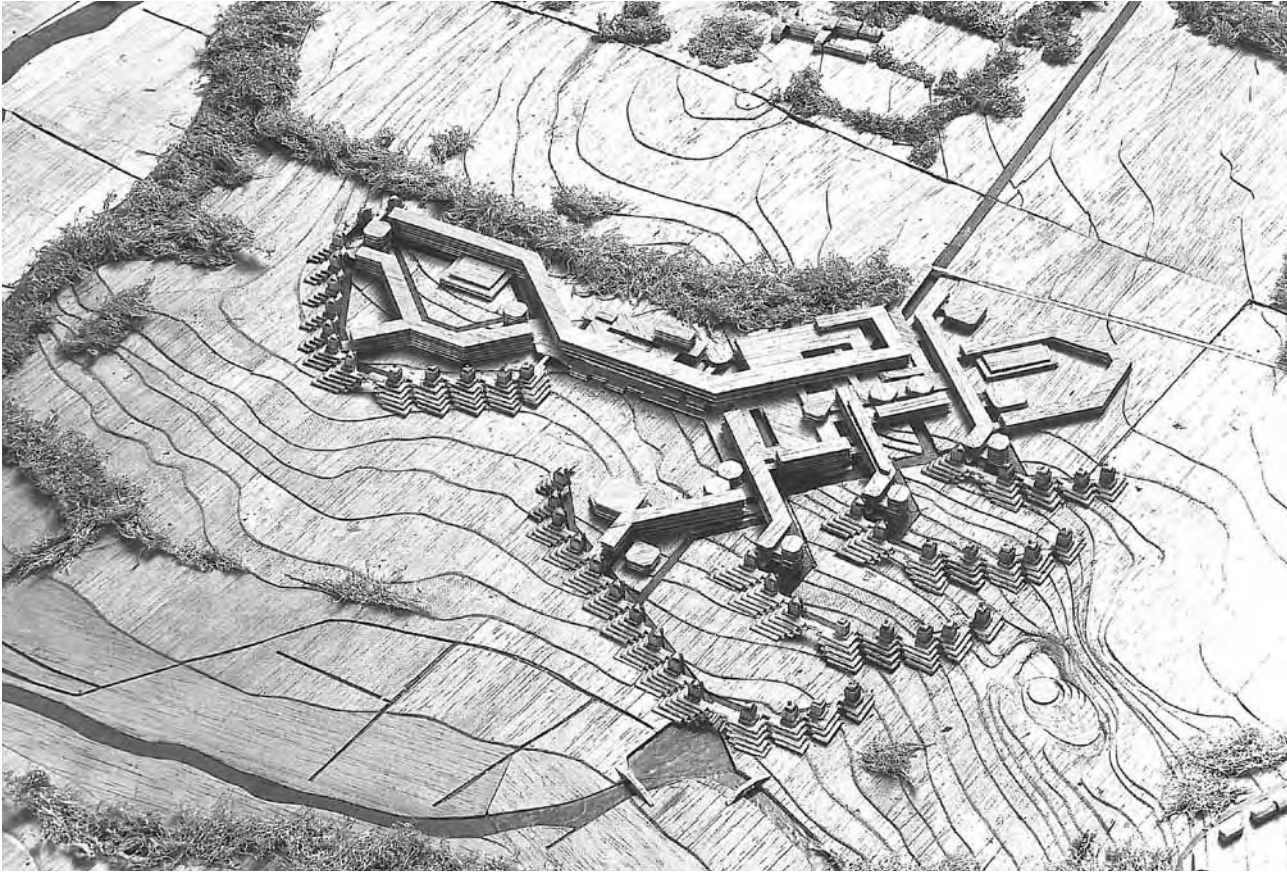
Building Type	Approximate Capacity in terms of NIA (sq m)
Buildings with Planning Permission	10,000
Aspirational Buildings	20,000
Total	30,000

It is possible to see from the tables above that there is a shortfall in the capacity of the existing defined Campus to deliver the known required floor space, identified in the Business Statement, by approximately 25,000 sq m. This figure does not include the space, identified in Table 2, that would be required by new schools, such as Dentistry and Engineering and their associate student accommodation, or provide a contingency for 'Advancement' opportunities.

CONCLUSION

The research undertaken by the University has indicated that there is a requirement of at least 55,000 sq m of new net internal floor area by 2030. In addition, there is likely to be the requirement for 25-50,000 sq m of additional space required for new schools, as well as a contingency for 'Advancement' opportunities, potentially extending beyond the period up to 2030. The Estates Development Strategy has identified capacity within the existing defined Campus of approximately 30,000 sq m of net internal area. This leaves a shortfall of at least 25,000 sq m of floor space up to 2030, not including the 25-50,000 identified in Table 2. This 25,000 sq m shortfall, and space required for new schools and potential Advancement opportunities will need to be accommodated outside of the area defined as 'University Campus' in the current Local Plan.

The DFS process has identified suitable locations for future development, based upon a Sustainability Appraisal and included in Appendix 5. It has identified ways in which development at those locations may be used, to not only meet the above identified growth needs, but also other opportunities and constraints identified within the existing Campus. It has explored the design ethos of the original masterplan vision and used that, as well as opportunities and constraints within the existing Campus, to identify suitable initial guidelines for future development of the identified sites and suggest appropriate mitigation measures.



Above: One of the first drafts of the masterplan, showing the lines of Ziggurats extending down the slope to the river.

4 Design Background

UEA was built on a vision, a strong design concept that has made its place in the history of architecture and Campus design. Great names have added to that vision over time, sometimes successfully, sometimes less so, but they have all helped UEA to evolve to what it is today. By its nature, the development of a university Campus is never static; it is constantly evolving and adapting to meet the new challenges placed upon it by a partly transient, and increasingly demanding, student population and the ever-increasing needs of the employment sector. The future expansion needs identified in the Business Statement - Towards 2030 are just one of those challenges.

In the face of this constant pressure to change, visions may become lost over time, their product changing so much that they reflect little or nothing of the original ethos. It would be unfortunate if this were allowed to happen, particularly in a Campus of such architectural and landscape significance as UEA. Although needs have changed, and ideas about the demands of users and the nature of architectural design and building techniques are very different from those of the 1960s and 70s, there are central elements of the original vision which are relatively timeless and which should, in UEA's opinion, be preserved lest the resulting Campus design fail to meet its original objectives and lose its significance.

INTERDISCIPLINARITY AND THE COMPACT CAMPUS

A founding principle of UEA was interdisciplinarity, i.e. where related academic subjects are studied in combination with each other so that undergraduates and researchers could benefit from widening their areas of study and interacting with students of other disciplines. Currently, 75% of subjects are taught across more than one school of study. The ability for this interchange of knowledge to be seamless, through co-location and proximity, is a key selling point for UEA. In order for this to be effective, departments, facilities and accommodation must all be within easily accessible distance of each other.

The first appointed University Architect at UEA was Denys Lasdun. A specific part of his brief was to produce an integrated design, which would reflect the academic structure proposed by the founders. The resulting masterplan proposals were compact, concentrated onto the higher areas of ground, away from the river valley. The masterplan was anchored around the interdisciplinary Teaching Wall which formed a strong spine running through the Campus.

Lasdun summarised his key principles behind the concept of the Campus as:

- Concentration – a compact university where destinations are connected directly and where all activities are within a five minute walking distance;
- Limitation of the spread – to protect the valley landscape from encroachment and to maintain ‘a *cohesive whole*’;
- Linkage and movement – use of elevated walkways to allow concentration of pedestrian traffic and make use of the changes in levels;
- Student living – creation of small communities within the whole;
- Materials – use of unfinished concrete due to its neutral colour that would not detract from the natural landscape; and
- Growth – the creation of a central nucleus from which growth could spread as the needs of the University changed.

Although many of the needs of the University and its staff and students have changed, these key principles (although perhaps not the methodology of implementing them) are still valid and should be fundamental, where practical, to any future design decisions made for the Campus.

Lasdun was succeeded as University Architect by various practices, many of which were local, including Feilden and Mawson, Rick Mather, (Sir) Norman Foster, LSI and RH Partnership. These Architects have all added to the UEA masterplan but have generally kept to its founding principles of a compact Campus where interdisciplinarity is a core requirement.

These Architects have all added their own distinctive mark to the University, producing buildings of varying significance, two of the most notable of which are perhaps Lasdun’s Ziggurats and Foster’s Sainsbury Centre. It is these



Above: Denys Lasdun (1914-2001).

Right: Plan showing locations of the different Faculties.

Key
 Orange - Social Sciences
 Yellow - Sciences
 Green - Arts & Humanities
 Dark Blue - Health
 Red - Residential
 Light Blue - Campus Services



buildings which give the built form of UEA its significance and their importance is reflected in the listed status of many of them. For example, the Library and Teaching Wall are listed Grade II and the residential Ziggurats are listed Grade II*. The Sainsbury Centre, although not listed, is considered a landmark building in Norwich. Significance of the built form is a key issue when considering any alterations to the University Campus, and is a core theme running through the Conservation Development Strategy.

Below: The Ziggurats with the Crescent Wing extension of the Sainsbury Centre behind.





THE PARKLAND SETTING

The original decision to concentrate the Campus buildings onto the higher ground allowed the greatest amount of space being able to remain undeveloped. The resulting Campus was compact and set within a wider landscape. The success and the significance of the buildings is reliant on their relationship to this wider landscape.

Brenda Colvin was chosen to undertake the design of the Campus landscape. Colvin was one of the founders of the Institute of Landscape Architects, now the Landscape Institute.

The relationship between Lasdun's compact Campus and Colvin's semi-natural landscape has been compared to the setting of a country estate in parkland. The landscape setting, therefore, is just as important a part of the overall masterplan design as the listed buildings within the complex, as well as the illusion that the landscape is limitless.

It is the contrast between the densely compact built area of buildings and the open and 'seemingly limitless' parkland that perhaps makes UEA truly special and of great architectural *and* landscape significance.

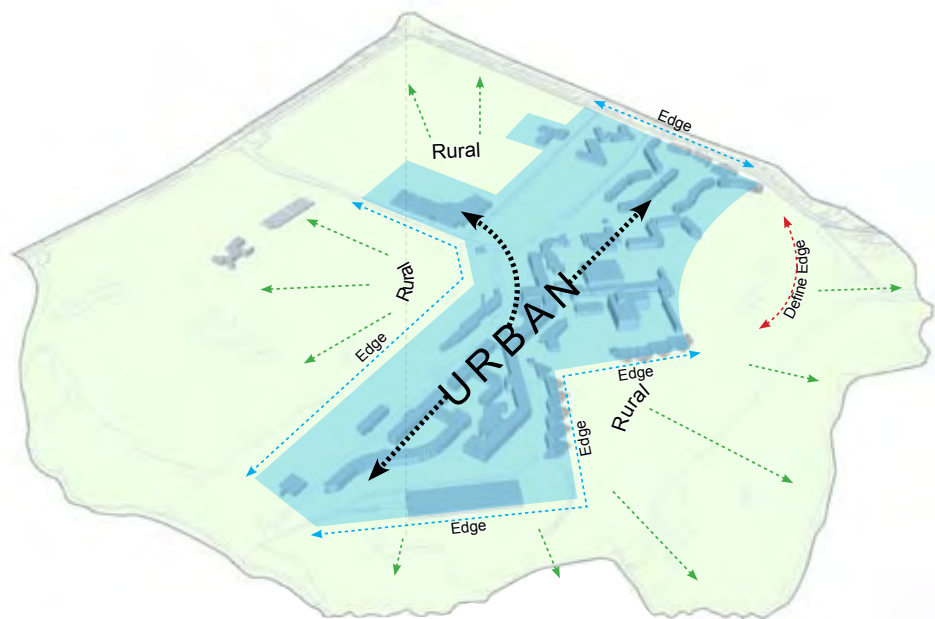


Above: Brenda Colvin (1897 - 1981).



Above: View across the harbour between the Ziggurats from the roof of the Teaching Wall.

Left: The contrast between the densely urban 'Central' and the parkland landscape.





5 Opportunities and Constraints

This chapter identifies opportunities to improve the current design of the Campus and constraints to the implementation of the overall vision. The Landscape and Conservation Development Strategies include detailed analysis of the University buildings and landscape and identify detailed and specific issues for redress. The DFS seeks to deal with the broader issues of the masterplan design, supported by the Landscape and Conservation Development Strategies.

ACCESS AND CIRCULATION

Reference Landscape Strategy (2009)

Strategic Policy 1 – Conserve and Reinforce Significant Vistas

Strategic Policy 4 – Provide a Safe and Welcoming Environmental for All

Strategic Policy 5 – Access

Strategic Policy 7 – Create a Legible Hierarchy of Circulation

Reference Travel Plan (2006)

Reference Travel Policy Document (May 2010)

Access to and from and within the UEA Campus is an important consideration in the DFS, given its location on an important commuter route on the edge of Norwich and the numbers of students, employees and visitors attending the University each day, particularly during term time. Internal circulation on the Campus, to ensure the safe and efficient operation of all modes of transport, is also essential, particularly given the emphasis during the evolution of the University of ‘the walking distance Campus’ and the need, where possible, to reduce carbon emissions.

UEA accepts the need to carefully manage all forms of traffic generated by users of the Campus and has adopted a Travel Plan based on a sustainable transport policy in order to achieve this. The Travel Plan incorporates the University’s Transport Policy, and is a core reference document for the DFS. It should, therefore, be read alongside the DFS to obtain detailed information on access and transportation issues and policies concerning the Campus.

The Existing Situation

The main Campus at UEA has a number of entrances, but presently has two main vehicular accesses with junctions onto the Earlham Road to the north and Bluebell Road to the east. Both of these roads are frequently congested, particularly during peak periods, and their junction at the Fiveways roundabout is a notorious bottleneck for traffic movements in this part of Norwich. University Drive is the main distributor road through the Campus, connecting the two access points. The section of road from Earlham Park northwards is in the ownership of the City Council and also accommodates traffic generated by Earlham Park and the UEA SportsPark.

The remainder of the Campus is accessed internally via Chancellor’s Drive, a road that runs from a junction with University Drive to a bus turning circle adjacent to the River Yare Fen. This road also provides the vehicular access route to the Sainsbury Centre and to the University playing fields, from where there is a restricted access road through to the Institute of Food Research.

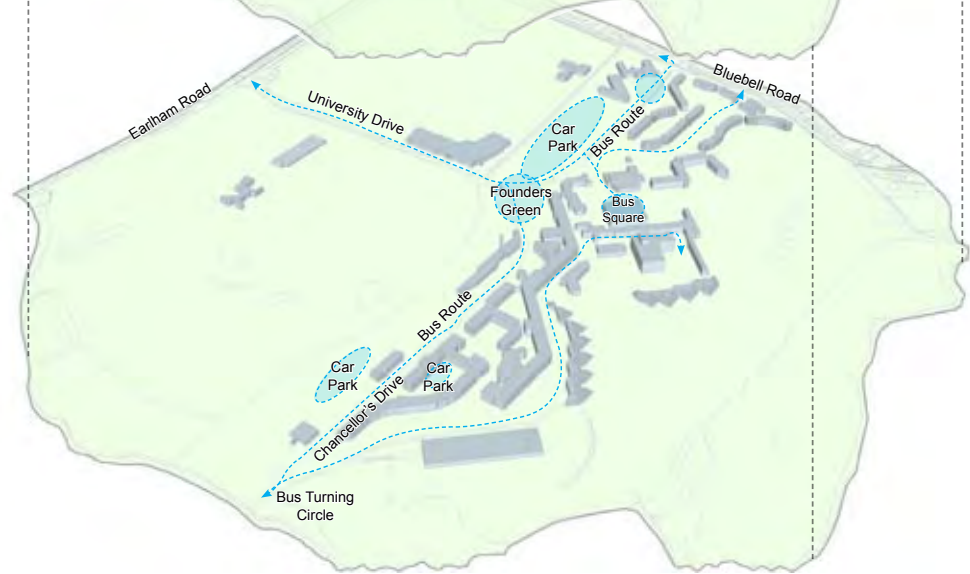


Above: Part of Lasdun’s original walkways.

Right: Key pedestrian routes and spaces.



Right: Key vehicular routes and parking places.



There is specific provision within the main Campus for each of the various modes of transport.

1. Public Transport

Public transport available at UEA is confined to buses and taxis. No specific provision is made for the latter apart from collection and drop-off points on the main internal roads.

Buses mainly access the Campus from the eastern end of University Drive via Bluebell Road, although the geometry of this junction is not ideal for large vehicle turning movements. There is a right hand turning lane and a yellow box junction at the Earlham Road entrance, but there is insufficient width for buses to turn left out of this entrance. Consequently, buses and large vehicles heading westwards out of the Campus have to be routed back along University Drive to the Bluebell Road junction and then access Earlham Road via the Fiveways roundabout, a significant detour, particularly given the frequent congestion at this interchange. The DFS provides the opportunity to reconsider junction arrangements.

Within the Campus, there are designated bus routes along University Drive and Chancellor's Drive, which accommodate a variety of services. There are principal bus stops adjacent to the main car park on University Drive and at the turning circle at the end of Chancellor's Drive.

2. Cars

Cars are able to use both entrances to UEA: off Earlham road and Bluebell Road, as well as all internal circulation roads within the Campus. There are approximately 1500 permanent parking spaces available on the Campus and a further 700 spaces on temporary car parks at Blackdale School and the Triangle Site off Colney Lane. Planning permission exists for a decked car park on the site of the main car park, which could replace the temporary parking areas in due course.

3. Cycles

Cycling is an important and popular means of transport on the Campus and cyclists use the above vehicle entrances, plus dedicated cycle routes from the Norwich Research Park to the end of Chancellor's Drive, and along Cow Drive from Bluebell Road. The route links into a dedicated cyclepath along Colney Lane to the Norwich and Norfolk University Hospital and the Norwich Research Park to the west, and to the various cycle lanes leading towards Norwich City Centre to the east.

4. Pedestrians

Pedestrian access into the Campus is available via informal footpaths through Earlham Park, from Earlham Road, and from Bluebell Road to the Broad, in addition to the above vehicular and cycle routes.

Policy Considerations and Mitigation

There are five primary aims of UEA's transport policy:

- To reduce car journeys to the University site;
- To maximise the limited car parking resources that are available;
- To reduce congestion in and around the University;
- To prevent unauthorised use of University car parks; and
- To ensure the continuing ability of the University to deliver its core business.

In addition, the Higher Education Funding Council for England (HEFCE) has made it clear that all universities must significantly reduce their carbon footprint. UEA has consequently prepared a Carbon Reduction Plan to deliver reductions in key areas, including travel and transport which are a major contributor to the carbon footprint of the University.

The Reduction in Car Journeys

A significant number of persons attending or visiting UEA live beyond easy walking distance of the University and therefore are reliant on vehicles to gain access to the Campus. This need for vehicles has, to an extent, been minimised by the location of all academic departments within a single Campus, and the location of a significant amount of student accommodation upon it. Nevertheless, there is always going to be a need for significant numbers of vehicle-borne visitors to and from the Campus each day if the University is going to function efficiently.

A key purpose of the Travel Plan is, therefore, to reduce the number of those travelling by car so as to reduce traffic congestion and parking need in and around the University and lower the carbon footprint of such traffic movements by lowering vehicle numbers. This has been achieved by a 'carrot and stick approach' in the Travel Plan, the carrot being the provision of a good value and efficient bus service to the Campus, whilst the stick is the limited availability of car parking on the Campus, which is allocated on a permitted needs basis, and charged to discourage non-essential usage.

Efficient bus service provision is, however, also dependant on the ability of the bus operators to access the University and there is currently a problem with the geometry of the junctions at Bluebell Road and Earlham Road to accommodate bus turning movements. It is also difficult for buses to travel quickly from UEA to the two main destinations, at the Norwich Research Park and the Centre of Norwich, during peak travelling hours because of congestion on the Earlham Road and at the Fiveways junction. These act as considerable bottle necks to the rapid passage of buses to and from UEA and has resulted in the University proposing a dedicated bus route from the turning circle at the end of Chancellor's Drive to Colney Lane, which would potentially significantly reduce travel distances and reduce bus times accordingly.

The need for such a link has been acknowledged in the Development Brief adopted for the Norwich Research Park by South Norfolk Council in 2008. There is also the possibility of the creation of a bus only junction/crossover at Bluebell Road in conjunction with the redevelopment of the former Blackdale School site, to provide a direct bus route from the Campus into Norwich City Centre via the Avenues, thus completely avoiding the bottleneck at the Fiveways roundabout and the congested Earlham road route.

Maximisation of the Limited Car Parking Availability

The Travel Plan, in addition to charging for car parking, requires the issuing of permits to categories of employees, students and visitors to ensure that spaces are, as far as possible, fully used by those needing to park cars on the Campus. Undergraduates, for example, have little or no opportunity of parking a vehicle, as does any employee living within easy access of a bus route to the Campus. The extant permission for a decked car park on the site of the main car park, in addition to existing car parking provision, will just meet future parking demand, provided the policies of the Travel Plan are fully implemented. The unavailability of this decked car park is currently overcome by the temporary car parks at the former Blackdale School site and on the UEA triangle site off Colney Lane. No new car parks have therefore been proposed in this Development Framework Strategy, but the availability of car parking will need to be kept under review, particularly if the construction of the decked car park is delayed.

To Reduce Congestion In and Around the University

The University is located adjacent to Earlham Road, an important distributor route into Norwich. An efficient travel plan that minimises potential congestion, both in the form of vehicle movements and car parking, is a principle requirement of UEA transport policy. Over-zealous application of parking policies on the Campus or insufficient off street parking controls, however, can result in off site 'fly parking'. Hence the University has worked closely with the City Council and has contributed financially to the creation of controlled parking zones in the residential areas close to the Campus to discourage off-site parking.

To Prevent Unauthorised Use of University Car Parks

UEA employs a rigorous parking charging and enforcement regime to ensure that only authorised vehicles park on the Campus.

To Ensure the University Can Deliver its Core Business

The efficient operation of the University requires numerous daily transportation movements to and from it, and it is inevitable that these will have to involve a variety of modes of transportation, including the private car. The Travel Plan is, therefore, tailored to ensure that the University is able to deliver its core business whilst minimising vehicle movements, particularly those resulting from use of the private car. This is a process that requires continuous monitoring and

the review of transportation needs and supply to ensure the correct balance is retained. It is essential, on a Campus as large as UEA, that public transport access points and car parks are efficiently located for relative ease of access by potential users, particularly where it involves visitors to specific facilities or events.

Internal Circulation

The main vehicular circulation within the Campus is orientated around University and Chancellor's Drives. These form the 'backbone' to the University circulation system and all other routes stem from them. They also form prime pedestrian routes through the Campus and the design of these spaces should reflect their importance. However, Chancellor's Drive, particularly, is vehicular dominated and is characterised by degraded paving materials and planting. This contributes to the sense that the Campus is 'back to front' and contributes to the poor legibility of the space (see next page).

Pedestrian access through the Campus is primarily in the form of dedicated foot / cyclepaths, including the raised walkways designed by Lasdun. This reduces the amount of conflicts between pedestrians and vehicles.

The Travel Plan is currently under review and will be the tool by which future transport growth is managed. For example, a key aspiration to support the growth of NRP is the development of a direct bus service from the Campus to Colney Lane to improve the linkages between NRP, the City and the surrounding area.

Legibility and the Sense of Arrival

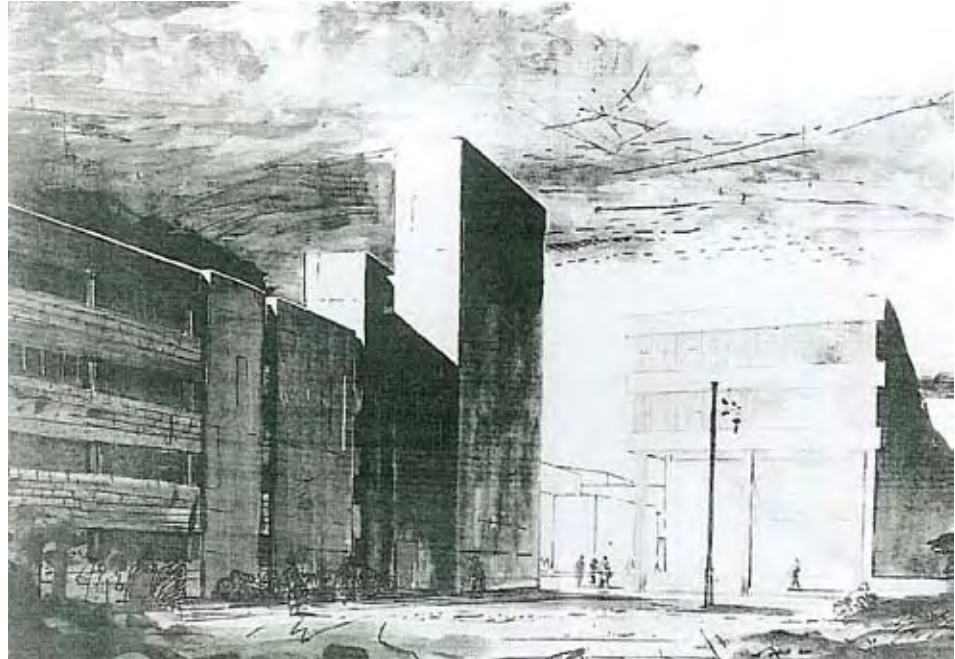
Legibility is the ability by which people can understand the layout of a place and the ease with which they find, and remember, the route to the places for which they are looking. Different elements contribute to legibility, such as landmarks, views and clear routes.

The Campus has evolved since the original masterplan completed by Lasdun in the 1960s and 70s. A line of notable architects have added their mark to the Campus layout, changing external spaces and routes. Planting has matured and been adapted over time, changing views and visibility. As a result, some of the spaces within the Campus suffer from poor legibility, making the Campus difficult to negotiate, particularly for visitors and new students.



Left: The area around the Lodge lacks legibility and a sense of arrival into the University, despite being the main entrance point to the Campus.

Perhaps the most important space is the approach from Earlham Road down to the area around the Lodge which currently lacks a sense of arrival. The colonnade on the eastern end of the Teaching Wall was originally intended to mark the entrance into the Campus but this has been lost behind subsequent planting.

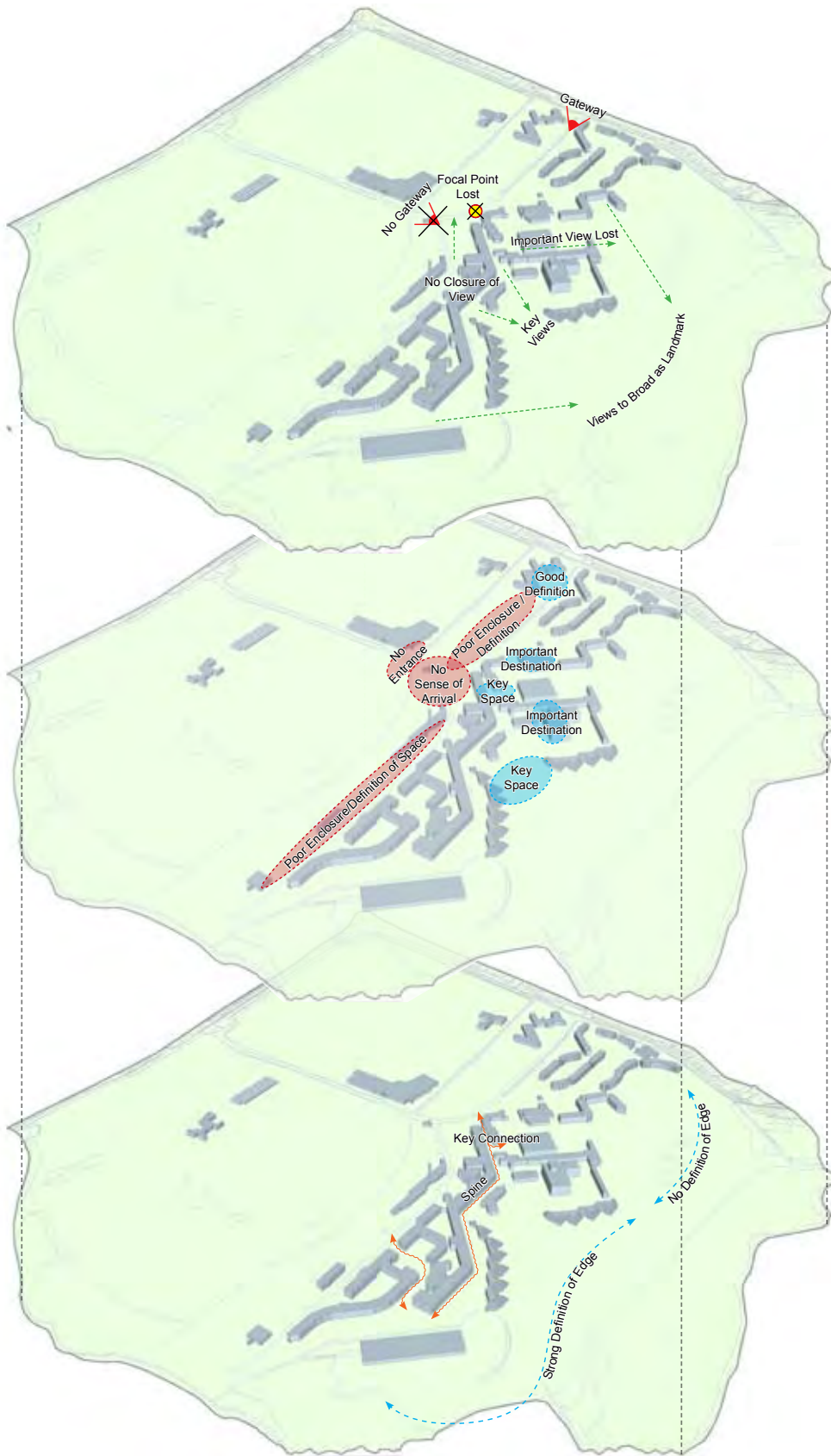


Right: Bernard Feilden's original vision for the Registry.

When Bernard Feilden completed the Registry between 1969 and 1971, he intended that the tower be the landmark that marked the entrance to the Campus and that led visitors into the central area. However, subsequent planting has obscured the tower and the eastern façade of the Teaching Wall and it is not clear to the visitor to where they should proceed on arriving in the Campus. This space would benefit from being redesigned to reflect its importance as the key arrival space into the Campus.



Right: The Registry today, hidden from longer views behind tree and shrub planting.



Left: Views and gateways.

Left: Spaces.

Left: Connections.

Views are key to legibility as they aid the use of landmarks for orientation. There are many landmark buildings, spaces and landscape elements within the University Campus, including the Teaching Wall, Registry, University Square, the Harbour, the Broad and the Sainsbury Centre, as well as key views. In certain cases these have become visually screened by inappropriate planting or the addition of new buildings and their connections have been lost. The Landscape and Conservation Development Strategies assess many of these areas and make detailed recommendations.

Recommendations

A sense of journey and arrival needs to be created when approaching the University from Earlham Road. A sense of occasion and procession is needed when travelling down University Drive.

The area between the Lodge and the Registry should be redesigned, improving views to Founder's Green and the Registry tower beyond to provide a landmark to aid legibility.

The paving along Chancellor's and University Drives should be reviewed to create a more cohesive space, providing an environment that is less car dominated and more able to accommodate the large numbers of pedestrians that use it.

Planting should be reviewed in line with the Landscape Strategy.

THE BUILT FORM

Reference Landscape Strategy

Strategic Policy 1 – Conserve and Reinforce Significant Vistas

Strategic Policy 2 – Conserve the Landscape and Architectural Significance of UEA

Strategic Policy 7 – Create a Legible Hierarchy of Circulation

Reference Conservation Development Strategy

Strategic Principles 1 – 7

Building Policies Pages 64-101

New Buildings

The University is constantly subject to change and in need of the addition of new buildings. Therefore, it could be said that the Campus will never be 'finished', irrespective of need, but constantly adapting as needs change. However, there are certain areas of the Campus that could be considered 'unfinished' and that would benefit from completion, in accordance with the Landscape and Conservation Development Strategies.

When considering any new addition to the Campus, the primary considerations are to the significance and setting of the existing key buildings, particularly those that are listed, and the landscape setting of the Campus as a whole. This is a key theme running throughout the Conservation Development and Landscape Strategies. The Conservation Development Strategy includes a section regarding the strategy for the detailed preservation and development of the Campus. This should be considered in all proposals for development on the Campus.

Right: Definition of Chancellor's and University Drives.



Right: Definition of the southern edge of the Campus.



Lasdun's original vision was for a compact Campus in a parkland setting, an urban typology compared to an Italian hill town. There was to be a distinct contrast between the compact, dynamic, urban Campus and the open, rural parkland surrounding it. There was to be no 'suburban'. There is now generally a strong contrast between the two areas, as originally conceived, with a strong built edge along most of the southern boundary of the Campus in the form of the Ziggurats and the Sainsbury Centre. The Ziggurats were Lasdun's 'cliffs' around his 'landlocked harbour' looking out over the landscape.

Below: the buildings as cliffs around the harbour.



The Sainsbury Centre is Foster's later interpretation and continuation of that edge. However, the eastern portion of the southern boundary remains incomplete, as the later phases of Lasdun's Ziggurats were never built due to cost issues. These would have formed the remainder of the strong edge to the Campus, facing out across the parkland and the Broad. The incomplete nature of the southern edge means that the built form lacks the strong definition originally envisaged to contain the urban Campus and to reinforce its contrast with the parkland setting.

Below: the southern edge defined in part by the Ziggurats and the Sainsbury Centre.





Above: 'Temporary' spiral staircases show where the Teaching Wall was intended to be extended.

The Teaching Wall was intended to be, and still remains, the strong spine that tied the University Campus together. It forms the single consistent feature running throughout the Campus, forming an aid to orientation and a backdrop to the Campus when viewed from areas to the south. The Teaching Wall was never completed and Lasdun's temporary spiral staircases still remain at various points, including at the western end. In the original masterplan drafts, the Teaching Wall continued across University Drive to the area now occupied by the car park. This would have provided definition to the northern edge of both University Drive and the Campus.

At present, Chancellor's Drive and the eastern part of University Drive lack a sense of space. This is an important route, which will increase in importance if the proposed sustainable bus link to the NRP is constructed. Lack of enclosure of the space by the built form in certain parts results in a space that is poorly defined and does not provide an aid to legibility or reflect the status of the space in the overall masterplan. The creation of a strongly defined space in this northern part of the Campus would remedy this. Combined with a review of the paving and planting in this space, new buildings would result in the creation of an area reflecting the importance of the northern edge of the development as the entrance into the Campus.

Below: The eastern end of Chancellor's Drive which, it is considered, does not reflect its location as a key arrival point in the Campus.



Replacement Buildings

Many of the buildings at UEA are starting to age and are undergoing a programme of repair and maintenance. Some buildings do not make efficient use of the space or do not reflect the architectural importance of the University Campus. The Conservation Development Strategy makes recommendations that certain of these buildings be replaced when funding allows. This would provide the opportunity to improve the built form and urban design of the Campus and to make more efficient use of the space available. However, these buildings are still usable and it is not considered to be viable to replace them at the present time due to cost. Nevertheless, such opportunities are continually kept under review.

Congregation Hall, the old Sports Hall, occupies an important location off the eastern part of University Drive. It is an important focal point as it hosts many ticketed events that are open to the public. This means that, for many people, Congregation Hall is the only building they will visit on the Campus. However, the building does not relate well to the road or reflect its importance as an important events venue. The DFS supports the Conservation Development Strategy in the recommendation of the replacement of Congregation Hall with a more suitable building that reflects the importance of its location and its function within the University Campus. The Estates Development Strategy makes recommendations for the replacement of Congregation Hall with a new, academically orientated, conference centre.



Above: the location of Congregation Hall is not immediately obvious to the visitor.

Recommendations

The southern edge of the Campus should be defined and completed as originally envisaged by Lasdun. However, the location and design of the edge will be reviewed in this document to reflect the current context.

The Teaching Wall should be extended, as originally envisaged, to continue the spine of the development as per Lasdun's original vision. This will also provide enclosure to University Drive, defining the space as well as providing much needed teaching space.

New buildings should be provided along the northern edge of Chancellor's Drive to further define the space.

LANDSCAPE

Reference Landscape Strategy

Strategic Policy 1 – Conserve and Reinforce Significant Vistas

Strategic Policy 2 – Conserve the Landscape and Architectural Significance of UEA

Strategic Policy 3 – Conserve the Landscape Setting of University Broad

Strategic Policy 4 – Provide a Safe and Welcoming Environment for All

Strategic Policy 5 – Access

Strategic Policy 6 – Protect and Enhance Biodiversity

Strategic Policy 8 – Management of Trees

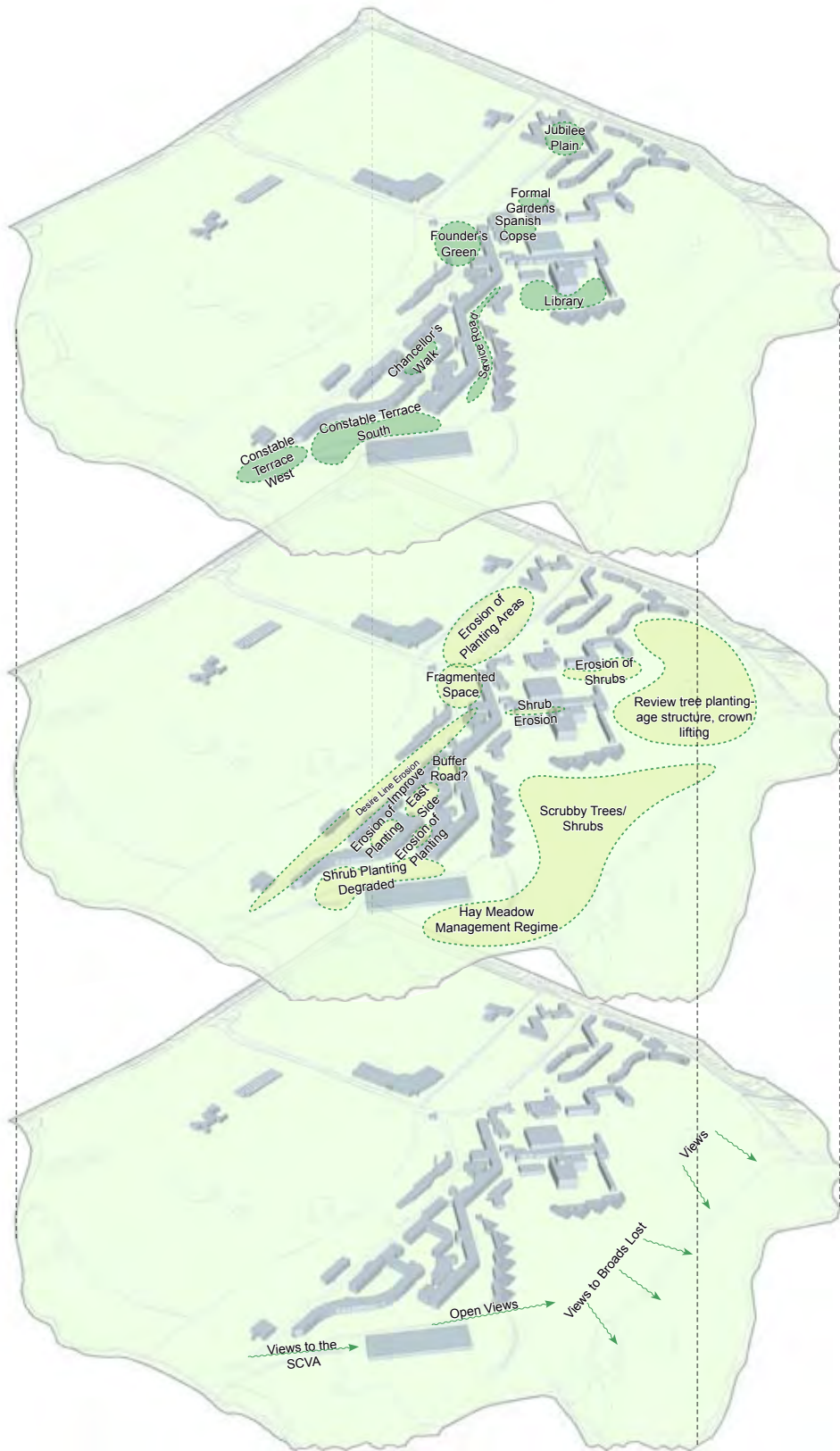
Conservation Development Strategy

Strategic Principles 1-7

Landscape Policies Pages 102-105

Parkland

The Broad was a key feature of Colvin and Lasdun's vision for the University's parkland setting, despite being suggested in a different location. The Broad is a central landmark within the Campus, forming a reference point in several key views. The relationship between the Campus buildings and the Broad is an important part of the landscape setting, but this is being lost due to the succession of the planting along the banks. This is also having an impact upon availability of habitats for various nesting birds. This vegetation needs to be reduced in accordance with the Landscape Strategy.



Left: Analysis of the urban rooms.

Left: Analysis of spaces.

Left: Analysis of important views.

Right: Key areas of tree planting.



Right: Conflicts between planting and important views.



Right: Function of tree planting.



Tree Planting

There are many areas of tree planting within the University Campus, some with historic significance and subject to TPO's. These are highlighted in the Landscape Strategy, along with recommendations for their management and protection. There are many trees within the Campus that are not of significant historic importance, such as the areas of tree planting south west of the Prospect, which are remnants of the Municipal golf course.

Trees are a positive element within the Campus, providing seasonal colour, shading and interest in both the built and parkland areas of the Campus. However, their location and planting should be carefully considered with regards to potential impact on spaces, views, legibility and the overall design concept of the landscape masterplan. Tree planting for tree planting's sake is not to be encouraged and needs to be part of a wider strategy. Over time, trees have been planted in inappropriate locations, or have outgrown their spaces, limiting important views and vistas, and these should be reviewed.

Urban Rooms and Streets

The key streets running through the Campus are University and Chancellor's Drives which form the entrance into the site and the main east west route across the northern edge. Despite being the main routes within the site and the key entrance points, they do not provide the sense of approach that might be expected at an important institution such as UEA, giving the impression that the Campus is 'back-to-front'. Reviewing the built form along both of these roads, in addition to paving and planting, will create a sense of importance within the road spaces and reinforce their position as the front of the University Campus.

The Campus benefits from a series of 'urban rooms', green spaces that sit between the buildings, providing break out spaces and breaking up the built form. Many of these spaces are arranged around historic groups of trees, such as the Spanish Copse, a group of Spanish Chestnuts to the rear of Registry.

Recommendations

In support of the Landscape Strategy, the DFS recommends a Campus-wide tree survey is undertaken to identify requirements for removal and replacement.

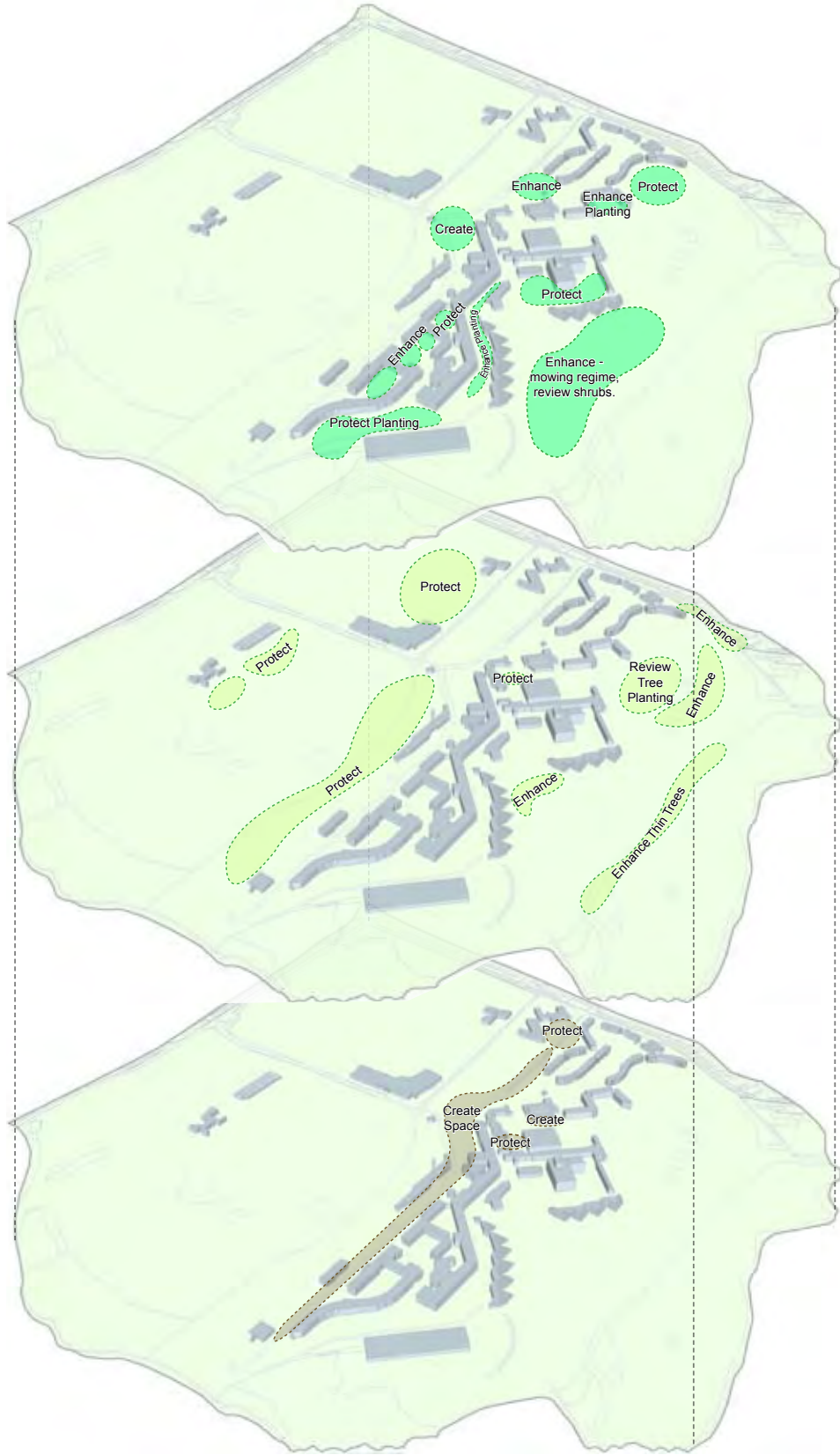
The shrub planting in many of these spaces has become degraded and would benefit from replacement or removal. Detailed recommendations for this are included in the Landscape Strategy.

SUMMARY

New built form should be used to define key edges and spaces, in particular the south eastern edge of the Campus and University and Chancellor's Drives.

Planting and hard landscaping should be used to improve the quality of the key pedestrian routes into and within the Campus, particularly Chancellor's and University Drives and the area between the Lodge and the Registry, aiding legibility and framing key landmarks such as Registry Tower.

Planting should be reviewed in line with the landscape strategy.



Left: Spaces.

Left: Tree planting.

Left: Key street spaces.

Right: Key visual and physical connections.



Right: Definition of edges and spaces.



Right: Analysis of buildings and spaces.



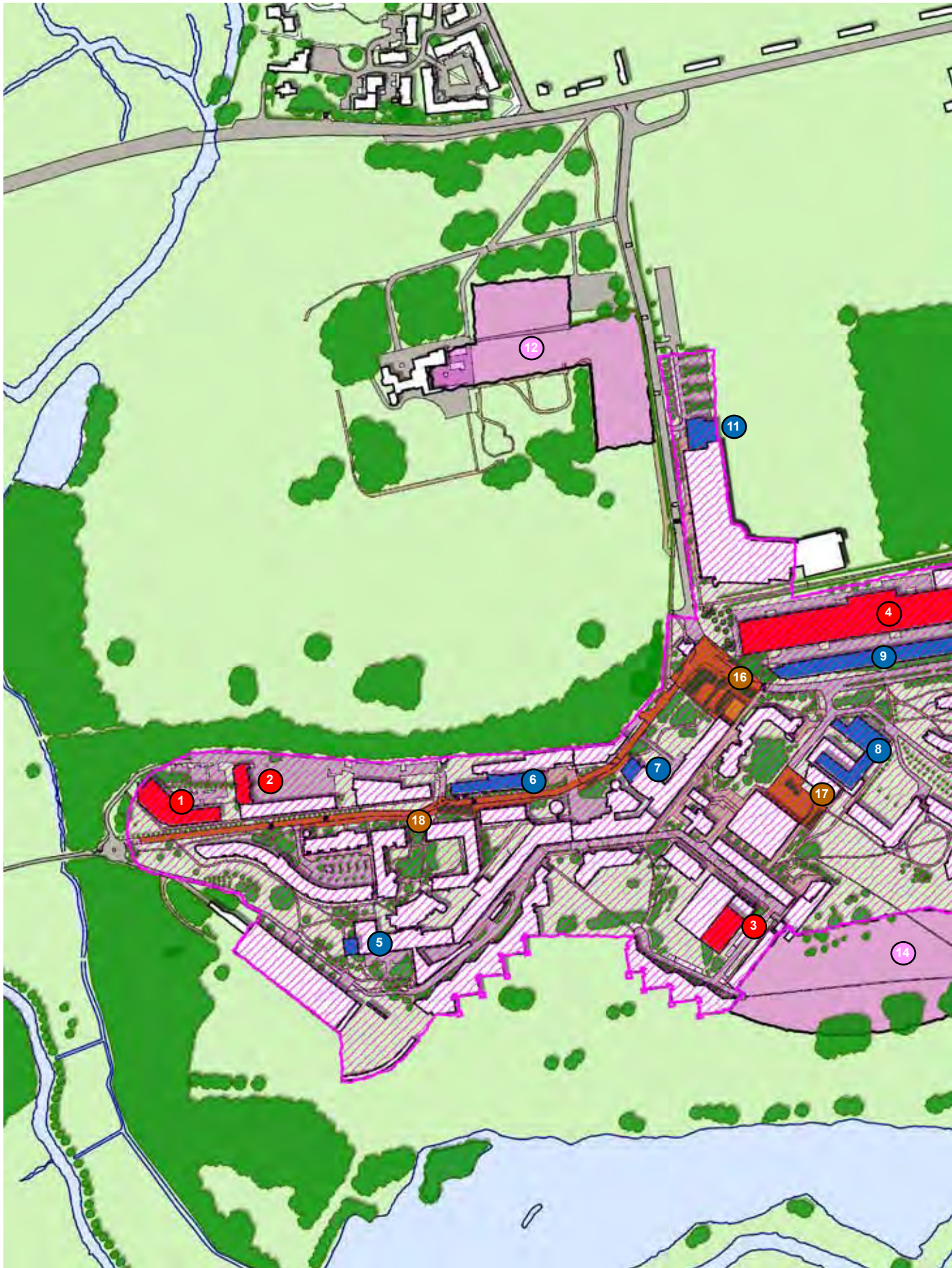


6 The Development Framework Strategy Spatial Plan

The DFS proposes locations for new buildings that support the original design concepts and that seek to address current issues. The landscape has been readdressed, building on the information from the Landscape Strategy and recapturing Colvin and Lasdun's bold vision where practical. The proposed framework also addresses the current urban design issues of the Campus, seeking to remedy areas that have become weak through changing uses and pressure from increasing numbers.

The original vision of Lasdun's compact hill town, a tight urban grain, contrasting strongly with Colvin's open valley landscape is still relevant. The ethos of Lasdun (et al) can still be built upon and projected into the future, so that not only the built heritage and landscape are protected but also the original development context enhanced.

The proposed masterplan framework tests Lasdun's ethos in the contemporary context, taking the vision back to its roots so that it can be brought forward to meet current needs and future challenges with a strong sense of purpose and identity.



The Development Framework Strategy spatial plan proposes two main types of development in line with the Strategic Development Principles document:

1. Development within the existing built form (red and blue); and
2. New development areas (magenta).

These are explored in greater detail within the following chapter, including the identification of key design principles.

The locations proposed for new development have been chosen with the aim of utilising the available space in the most efficient manner, as well as improving the aspects of the Campus relating to urban design, such as legibility, enclosure of space and closure of views. These aspects have been identified in the previous chapter.



Key

- *Buildings with Planning Permission*
 1. Academic Building West
 2. School of Medicine 2B and 3
 3. Central Library
 4. Biomass Car Park
- *Buildings without Planning Permission*
 5. Science Research Exchange
 6. Extension to Estates and Building Division
 7. Arts Research Exchange
 8. Congregation Conference Centre
 9. Teaching Wall Extension
 10. Alumni Tower Block
 11. Pool Extension
- *Development Sites*
 12. Earlham Hall and Surrounds
 13. The former Blackdale School site
 14. Land between Suffolk Walk and Bluebell Road
 15. Potential Location for an Exemplar Building
- *Key Spaces*
 16. Space around the Lodge
 17. Bus Interchange Area
 18. Chancellor's Drive
- ▨ *Area currently defined as 'University Campus' in the City of Norwich Replacement Local Plan (2004)*

In addition, the DFS spatial plan identifies key spaces that would benefit from improvement and that should be the subject of detailed design exercises. These spaces are:

1. The space by the Lodge;
2. Chancellor's Drive; and
3. The Bus Interchange Area behind Congregation Hall.

It is proposed that the surface treatment and planting within these spaces be reviewed. A review of the planting in the vicinity of the Lodge is key to the opening of views towards Registry Tower, aiding legibility and a sense of arrival in this area.

A review of the surface treatment of Chancellor's Drive will address the problems of erosion and compaction of the verges due to high pedestrian numbers in the area and, in addition to the proposed new buildings, create a sense of space appropriate to the 'front' of the Campus.

The Bus Interchange Area is often the first arrival point for those visiting Congregation Hall and the quality and design of the space should reflect its importance.

In addition, this document supports the recommendations set out within the Landscape and Conservation Development Strategies for detailed treatment of different parts of the Campus.



7 Development Areas

Studies undertaken by UEA have demonstrated a need for at least 55,000 sq m of net of additional floor space up until 2030 in order that UEA may meet the objectives set out in the Business Strategy. In addition, it had identified the likely need for at least an additional 25-50,000 sq m of internal floor area relating to potential new schools of study which may extend into the period beyond 2030.

The Strategic Development Principles Document, produced in 2010, identified five possible scenarios for single-Campus growth. These are:

1. Intensification of existing uses;
2. Demolition and rebuilding at a higher density;
3. Infill of under used and undeveloped areas;
4. New development locations with UEA's ownerships and within approximately 500m / five minutes walking distance of Registry; and
5. A combination of some or all of the above.

There is scope for more intensive use of common facilities but there is a limit to this and more facilities will have to be found. Radical redevelopment of the current Campus would not be welcome as many buildings are listed and still have a usable life span remaining.

The DFS, therefore, concentrates on the last three options listed above.

There are limited opportunities for development within the existing defined built Campus area, and those that do exist have been exhausted by the proposed buildings listed in Appendix 4 and identified in the table in chapter 3. Therefore, it is necessary to look beyond the existing defined Campus to find new potential sites for future development.

A number of sites have been considered for their suitability to potential future development. As part of the Sustainability Appraisal, these areas have been subjected to testing against various criteria to ensure that they are the best locations for future development. The testing criteria are as follows:

- Visual Flow;
- Built Form;
- Yare Valley;
- Connectivity;
- Legibility;
- Landscape;
- Ecology;
- Flood Risk.

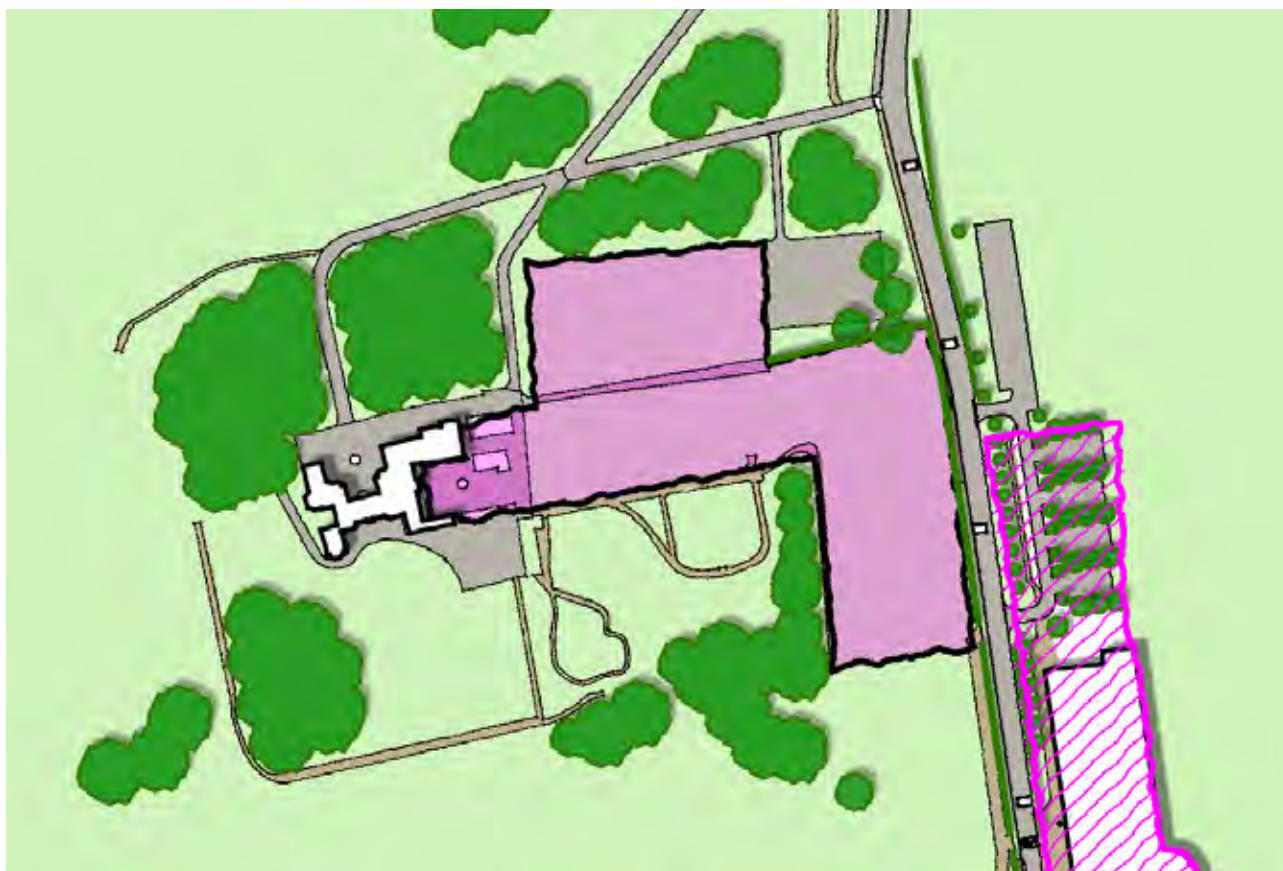
The sites that have been rejected have been so due to their failure to meet the criteria listed above. These criteria are explored in more detail, alongside the results of the testing process, in Appendix 5.

Following the consideration of the above criteria, three key sites emerged as being suitable for development. The three key sites shown to be most suitable for potential development are:

1. Earlham Hall and Surrounds (outside of Earlham Park);
2. The former Blackdale School site; and
3. An area between Suffolk Walk and Bluebell Road.

These sites correspond broadly with those identified in the Estates Development Strategy in 2008. However, their extents have been reviewed as part of the DFS process.

1 EARLHAM HALL AND SURROUNDS



A project is currently underway to produce proposals for the Enterprise Centre identified in the NRP Vision. The NRP Vision identified Earlam Hall as the most suitable location for the Enterprise Centre.

'The University has looked at a number of alternative locations for a focal point for the Research Park - the Enterprise Centre - and has concluded that of the three sites the emerged as favourite (the Triangle Site, the western fringe of the University Campus, and Earlam Hall), Earlam Hall is the most likely to fulfil all of the criteria required of such a facility.'

The following is an extract from the NRP Vision regarding the Enterprise Centre:

"At the heart of our enterprise vision is the creation of an 'open space' at the edge of the Campus facing the city, encouraging a free flow of people (entrepreneurs, innovators, managers, academics and students) and the development and diffusion of ideas through face to face interactions. Drawing on the experience of other UK universities, including Durham, Nottingham and Hertfordshire, we plan to create the open space in an iconic building which will bring together the rapidly growing Norwich Business School (NBS), key business-facing activities that are currently dispersed across the NRP, and some major new initiatives.

The Enterprise Centre will become the prime vehicle for the implementation of our five enterprise themes and for the NRP's attack on the sub-region's low GVA per capita. It will offer:

- *A Business Portal;*
- *A Business Club;*
- *The Knowledge Exchange;*
- *A Network Hub;*
- *Mentoring Activity and Social Inclusion Programmes;*
- *The Employment Centre;*
- *The Skills Centre;*
- *UEA's HEFCE - funded Beacon for Public Engagement;*
- *Foreign Languages Support Service; and*
- *The NRP Office.*

Vitality, these activities will be co-located with the Norwich Business School and three interdisciplinary, business-facing centres;

- *The ESRC - funded National Centre for Competition Policy;*
- *The Centre for Diversity and Equality in Career and Employment Research;*
- *The Low Carbon Innovation Centre.*

Equally essential to the strategy is that the Enterprise Centre will act as the hub for the various innovation spaces around the NRP, including the Bioscience Innovation Centre and the Environmental Incubator (which will be established immediately adjacent to it).” (NRP Vision).

Current Situation

UEA owns Earlham Hall and some of the adjacent land but it is considered to be very different in character from the main Campus area and is not seen as an extension of it.

Earlham Park is designated as 'Publicly Accessible Open Space' in the City of Norwich Replacement Local Plan (2004) and is also a Conservation Area. Earlham Hall dates from approximately 1642, with a smaller dwelling being present in approximately 1580. However, there is evidence of the presence of Earlham Manor back to the 12th Century. The Hall and parkland transferred into the ownership of the City of Norwich in 1924 and became public in 1925. The Hall and grounds were leased to the University in 1962 which then bought it in 2010. The building currently houses the School of Law.



Earlham Park is approximately 36 hectares in size and consists mainly of an 18th Century grassed parkland with specimen oaks and areas of tree planting. The two most significant areas of planting are the Heronry and Violet Grove, identified as character area 6 in the Landscape Strategy.

The former City Care depot area is located to the immediate east of the glasshouses and extends south along University Drive. Historically, the depot area extended further south but has been returned to grassland. The depot area has been used by the City Council arboricultural team and, later, City Care for storage of machinery, bark chippings and vehicles. The site is subject to a Certificate of Existing Lawful Use, which was issued on 25th March 2010.

Potential Development Area

The site previously occupied by City Care could provide 10,000 sq m of net internal floor area. This has been identified as a suitable location for the Enterprise Centre which is predicted to require 4,000 sq m of that total, leaving 6,000 sq m for other uses.

The proposed development area incorporates the walled gardens, the former nursery and the former City Care depot. The majority of the area proposed for development does not fall within the area designated as Publicly Accessible Open Space.

The design, siting and heights of buildings will carefully considered at the detailed stage to ensure that the setting of the Grade II* listed Earlham Hall is not impinged upon. There is also possible scope for enhancements to be made to Earlham Hall and its outbuildings, through sensitive restoration, alongside any future development.

The City Council has produced a guidance note (May 2010) setting out its requirements for a masterplan and subsequent planning application on this site. This can be viewed on Norwich City Council's website www.norwich.gov.uk.

2 THE FORMER BLACKDALE SCHOOL SITE



The former Blackdale School site is located in the north eastern part of the Campus, between Blackdale Plantation, the Medical Centre and Bluebell Road and was acquired by UEA from Norfolk County Council in 2008. It is currently occupied by a single storey, flat-roofed building which sits into the plantation. The Blackdale School site was subject to a RIBA Stage A/B report by LSI Architects LLP in March 2007. The following information is a summary of the information included within that report.

Current Situation

A site assessment was undertaken by The Landscape Partnership, working as sub-consultants to LSI. This identified opportunities and constraints to development, which are still valid and will need to be accommodated in any future masterplan, in addition to the policies outlined in the Conservation Development and Landscape Strategies.

The area to the west and north west of the existing buildings is occupied by Blackdale Plantation, whilst although unlikely to be Ancient Woodland, has been well-established on maps for at least 180 years. The Landscape Strategy states that the woodland 'has been somewhat neglected and requires extensive management to make it safe and in good health.'



Above: Blackdale Plantation.



Above: Cow Drive.

The eastern part of the site is more open in character, consisting of a hard surface sports court and grass playing fields, surrounded by mature hedgerows and trees. These provide an important buffer between the site and the residences on Bluebell Road.

Cow Drive runs along the southern edge of the development site, between University Drive and Bluebell Road and is a footpath and cycle link into UEA. This is a historic green lane marked on the early maps of the area, making it an established landscape feature.

The historic parkland character of the area is still evident in the form of woodland blocks and specimen trees. This links well in character to Colvin's landscape design of the main part of the Campus, providing continuity throughout the Campus.



Opportunities and Constraints

Any development must take into account the general design principles highlighted at the end of this chapter, particularly those regarding the Landscape and Conservation Development Strategies.

The LSI report makes the recommendation that the former Blackdale School site be treated as an extension of the UEA masterplan, making the site a part of

a unified whole Campus. This will be reflected in the orientation of the buildings, which will reflect the geometry of the urban grain used by Lasdun. Using buildings to create informal courtyards within the site, with parkland landscaping beyond, would continue key themes of the original Campus design.

Existing landscape features should be retained and enhanced, including Blackdale Plantation, the specimen trees occurring within the current built area of the school, boundary hedgerows and Cow Drive.

There is the potential to improve Blackdale Plantation through a maintenance regime and to open the area to controlled public access during daylight hours.

The site is overlooked by the adjacent properties on Bluebell Road and any proposals must make consideration of the visual amenity of residents. The possibility of creating a green edge to the eastern part of the site should be explored in any detailed proposals.

The potential to review the existing road and pedestrian access from UEA to Bluebell Road is also being explored. There is potential to provide a dedicated bus access onto Bluebell Road, opposite the Avenues.

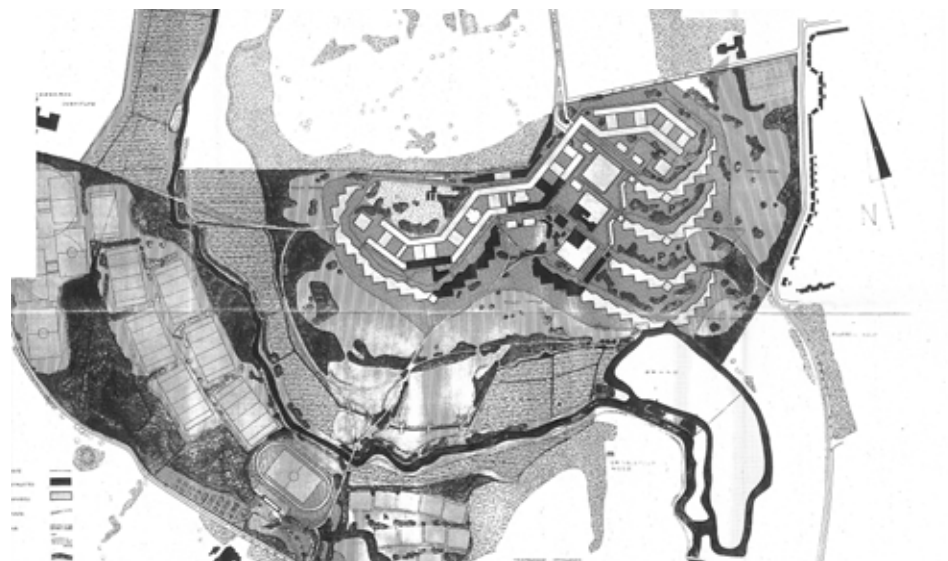
Potential Development Area

It is estimated that the former Blackdale School site would provide a maximum of 10,000 sq m of floor space.

3 LAND BETWEEN SUFFOLK WALK AND BLUEBELL ROAD



A third development area has been identified in the south-eastern corner of the Campus. This general location was originally identified for development as part of the original Lasdun masterplan, although it is considered no longer appropriate to develop as far south as the Broad and, therefore, a smaller area is now suggested. If UEA is to meet its projected growth requirements, the balance of the gross internal floor area from the total identified in chapter 3 will need to be met by this land between Suffolk Walk and Bluebell Road. This area could be required sooner, depending on specific development needs and the take up of land elsewhere.



Right: the original Colvin landscape masterplan, based upon Lasdun's architectural masterplan.

Current Situation

There is a fall in the land over the length of the site from 33mAOD in the north east to 9m in the south (not including the Prospect). The highest part of the site is the Prospect, a man made spoil heap which forms a distinct landscape feature within the eastern part of the Campus. The following is an extract from the Landscape Strategy, describing the area:

'The Prospect is a striking grassy man-made mound which rises up to 12 metres above the surrounding Campus parkland, with gradients of up to 1:2. Its visual and landscape significance is reflected in its inclusion in The Norwich City Council Local Plan Policy on development at the University, which specifically requires any development to respect the visual setting of The Prospect when viewed from the south. It is a popular spot for students to relax and enjoy the view, or for other recreational activities such as tobogganing on rare snowy days.'



Left: View towards the Prospect from the Meadow.



Above: View from the Prospect.

Opportunities and Constraints

The assessment of the urban design of the Campus has highlighted that the southern edge of the development is 'incomplete' and lacks definition. This definition of the southern edge was envisaged in the original Lasdun masterplans for the Campus. Although it is no longer considered appropriate to recreate the Lasdun masterplan, there are certain aspects which should be applied to any new development in this area. Key themes to consider in development of the area are:

1. Protection of the setting of the Prospect.

The setting of the Prospect is currently protected in policy EMP20 of the Norwich City Local Plan which states:

'Within the University Campus at Bluebell Road, development for the University will be permitted in accordance with an overall masterplan for the Campus, provided that;

(i) the visual amenity of the parkland setting of the University is safeguarded within the development area, especially views north from Constable Terrace towards Violet Grove and views south from Norfolk and Suffolk Terraces and from Union Square;

(ii) the visual setting of the southern elevations of 'The Prospect' are protected when viewed from the river valley and Bluebell Road;

(iii) an appropriate amount of new accommodation is provided for any additional student numbers attracted to Norwich in association with the development'.

It is considered that well designed development may meet the aims set out in this document whilst not having an adverse impact upon the setting of the Prospect.

2. Take account of the sloping topography of the site.

Any new development must take into account the contours of the site, particularly in relation to the Prospect. The distinct sloping nature of the area

offers the opportunity for the use of earth-sheltering technology. This would be in line with the University's aspirations to the creation of low and zero-carbon buildings and reflect the Crescent Wing of the Sainsbury Centre.

3. Respect the setting of the adjacent listed buildings.

The southern edge of the proposed site is a projected continuation of the Grade II* Listed buildings. However, any proposals should not be detrimental to the setting of the Ziggurats but must complement them. The Ziggurats range between 7-8 storeys in height but take advantage of the changes in the contours, reducing their overall height in comparison to ground level.

4. Define the southern edge of the Campus.

The southern edge of the Campus would benefit from completion, as discussed in previous chapters. However, this must not detract from the setting of the adjacent listed buildings (see above) or restrict accessibility from Bluebell Road.

5. Protect existing planting where appropriate.

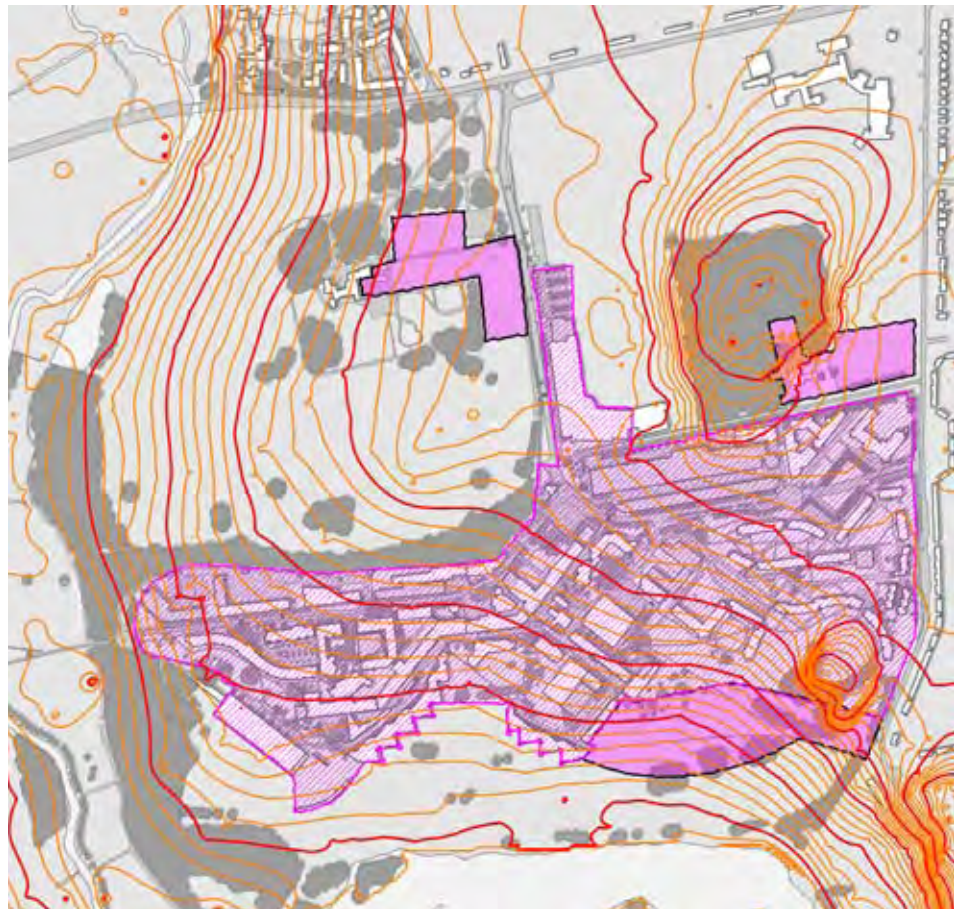
There are existing areas of planting within the newly defined potential development area and these are of varying significance. The three areas of tree planting are a remnant of the original Municipal golf course. They are not of historic importance but do form an established landscape element within the eastern part of the Campus. These trees should be retained, if possible, or replaced with suitable alternatives in appropriate locations to complement the existing parkland design.



Above: Aerial view of the Prospect.

Potential Development Area

Right: Plan demonstrating that the proposed development area east of Suffolk Walk extends to the same contour line as the Crescent Wing of the Sainsbury Centre.



The appropriateness of the area defined in the Estates Development Strategy has been reviewed, and its boundaries reconsidered. The original masterplan was visionary and the desire to bring the buildings to 'kiss' the Broad is a strong design concept. It is considered, however, that extending the building line as far as the Broad is no longer appropriate in the current context, as it would potentially create a barrier between the grounds of the Campus and Bluebell Road. The possibility of a subtle landmark building at the edge of the Broad, built to the highest design and environmental standards, should be considered.

The newly area is defined by the following key elements:

1. The existing edge of the built Campus;
2. The three groups of trees that are remnant from the gold course;
3. A line approximately 16-24m from the kerb of Bluebell Road (in line with the East Development Masterplan); and
4. An arc extending to the same contour and within the same distance of the Broad as the Crescent Wing of the Sainsbury Centre.

The defined area includes sensitive elements, such as existing trees and the environs of the Prospect. The setting of the Prospect is protected within policy



Left: Plan demonstrating that the proposed development area east of Suffolk Walk extends to within the same distance of the Broad as the Crescent Wing of the Sainsbury Centre.

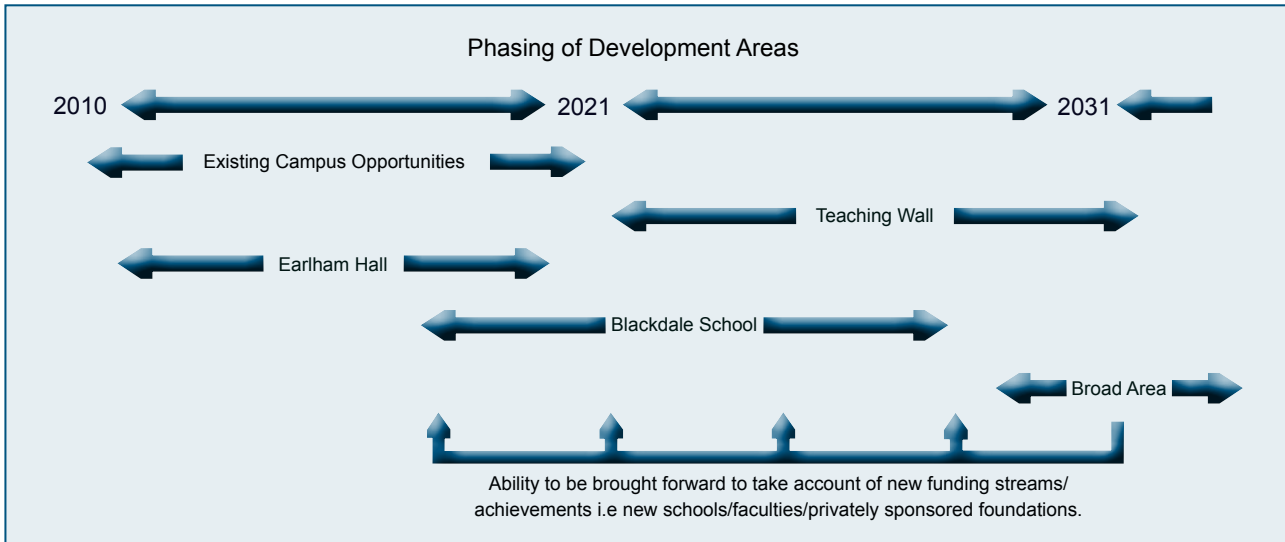
and this will need to be taken into consideration within any design proposals. The area is defined to include such elements to provide the greatest flexibility for an appropriate architectural solution.

The proposed exemplar building should be designed to the highest of both visual and environmental standards.

The newly defined development area, amounts to approximately 31,300 sq m of land. Potential coverage is calculated to be lower than other areas due to the high number of important landscape elements within the space. At 30% coverage and at a variety of heights, this could potentially yield in excess of 40,000 sq m, meeting the requirements set out in the Business Statement and allowing for Advancement opportunities as they may arise.

PHASING

The phasing of the proposed locations will be dependant upon development need and funding. It is therefore very difficult to predict an exact phasing schedule, particularly over a 20 year period and beyond. However, a possible phasing scenario is shown on the diagram below.



Above: Indicative Phasing Diagram.

This scenario anticipates that development opportunities within the area defined as 'University Campus' in the current Local Plan will continue to come forward over the next 10 years, after which time such opportunities will be very limited.

Earham Hall and the former Blackdale School site are expected to accommodate UEA growth from around 2012 onwards. The area between Suffolk Walk and Bluebell Road is expected to come forward later in the period if the growth trajectories remain constant.

However, all growth locations need to have the ability to be brought forward for development when funding becomes available or where particular uses require a specific location. For example, it is considered that the former Blackdale School and Earham Hall sites are not suitable for student residences.

Therefore, residential accommodation would likely be located on the Suffolk Walk site. This would be consistent with the existing land use pattern in the Campus where teaching facilities are clustered closest to the Registry to allow the greatest ease of movement between different schools of study and where residential accommodation is located at the furthest edges of the Campus.

GENERAL PRINCIPLES

There are several general principles that need to be applied to any development on the Campus, regardless of its location. These are listed below.

Regard to Other Strategies

All detailed masterplans must have regard to the policies and principles set out in the other University Strategies, particularly the Conservation Development and Landscape Strategies, so that there is a continuity of character across the Campus and so that the significance of the Campus is protected.

Design Quality

UEA was founded with the intention of using the highest quality architecture available. This tradition should continue, where possible, as poor quality architectural and landscape design would degrade the overall significance of the Campus and detract from the setting of the existing buildings.

The design of any new development must maintain and enhance the landscape, townscape and historic environment, including listed buildings on Campus.

Materials

Lasdun famously used concrete for his buildings, as did many architects of the period, partly due to his assertion that it best complemented the surrounding landscape.

Concrete may not be the most suitable material today, and may be limiting to potential design solutions, but attention must be paid to Lasdun's design philosophy, i.e. that the material of the buildings should complement the surrounding landscape. This design principle has been adhered to in the design of more recent buildings within the Campus and should be continued for future building projects. The use of materials should reflect the original philosophy but also visually tie with the existing built form.

Environmental Design and Sustainability

The environmental aspects of building design are becoming increasingly important as climate change becomes a more pressing issue. UEA has a strong commitment to addressing climate change and it is a core philosophy of the Estates Division. The University recently installed a wood-fired Combined Heat and Power Plant, which will provide heating and electricity to the Campus.

All new buildings within the Campus should aim to achieve the highest practical standards of environmental design, both through the reduction of their use of fossil fuels when operational but also through sensitive sourcing of construction materials and methods. Detailed masterplans should demonstrate how the design of the development will ensure measures are taken to reduce energy consumption, use renewable energy and reduce the impacts of climate change on people, land and property.

Flooding and Drainage

Any new buildings must not contribute to flooding in the Yare Valley through increased run-off. Building sites must produce a run-off rate equivalent to the green-field rate prior to construction. Sustainable Drainage Systems (SuDS) should be used where practicable to ensure that the greenfield run-off rate is maintained after construction.

The design of the SuDS should consider the possibility of enhancing the existing surface water attenuation system and the enhancement of the Fen area through the replenishment of water. The Fen area is vulnerable to lack of water and this would help stabilise the ecosystem.

Ecology

Impacts upon biodiversity, including valuable habitats and protected species, and geodiversity, must be avoided where possible and therefore ecological impact is an important criterion for the choice of development sites within the Campus. Where such impacts cannot be avoided, individual masterplans must demonstrate how they have been minimised and/or mitigated against.

Access

Any new development must provide simple and direct access for pedestrians and cyclists with vehicular access where required. The location and landforming of access roads should be carefully considered so that they do not detract from views of the landscape. Detailed masterplans must further the aims of the Travel Plan and be in accordance with it where required. The location of access points should be considered with legibility in mind.



8 Mitigation and Enhancement

More detail regarding the potential opportunities for improvement will come forward in the Detailed Briefs and are likely to form one of two main types:

- Compensatory provision of publicly accessible areas lost through development; and
- Reduction of the impacts / effects of growth, e.g. visual, landscape, transport etc.

EARLHAM HALL AND SURROUNDS



Improvements likely to involve increased public access to the Hall, its grounds and Earlham Park, as well as restoration work to the existing listed buildings. New development must take account of, and be sympathetic to, Earlham Hall and its Parkland Setting.

FORMER BLACKDALE SCHOOL SITE



This is likely to involve the provision of public access to Blackdale Plantation as well as the implementation of a management regime for the woodland. Public access would be restricted after dark to prevent potential issues with anti

social behaviour. It is possible there may be public open space provision and planting, particularly in the eastern part of the site, to soften the impact of any development on the setting of Bluebell Road.

A new access may be created through the former Blackdale School site to allow buses direct access onto the Avenues and into the City Centre, reducing traffic impact upon the Fiveways roundabout.

LAND BETWEEN SUFFOLK WALK AND BLUEBELL ROAD



Improvements are likely to involve the opening up of new areas to public access to compensate for loss of public open space in the area. These may include parts of Strawberry Fields or land to the south of the River Yare.

Habitat areas will need to be protected and new planting introduced, particularly to mitigate effects on the setting of Bluebell Road. Controls on parking will also likely be implemented. Detailed design proposals will need to take account of potential impacts on panoramic views and the setting of the Prospect.

GENERAL

Campus growth offers the opportunity to open up areas of the Campus that have been previously retained as private land and providing links into the Yare Valley and the countryside beyond for local communities.



9 Conclusions

THE NEED TO EXPAND

- UEA needs to expand to meet its future needs as defined in the Corporate Plan and the Business Statement.
- Interdisciplinarity is core to its ethos and is a principle that has been successful for the University. In order to maintain the core principle of interdisciplinarity, all facilities should be within an approximately five minute / 500m walk of the centre of the Campus, a point taken to be in the proximity of the Registry.
- It has been shown that UEA needs at least 55,000 sq m of floor space up to 2030 to meet the aims set out in the Corporate Plan and Business Statement. In addition, the Business Statement has identified an likely additional need of at least 25-50,000 sq m.

SCENARIOS FOR ON-CAMPUS GROWTH

- Scenarios identified in the Strategic Development Principles Document (Bidwells, 2010):
 - Intensification of existing uses, e.g. additional dual use of facilities;

- Demolition and rebuilding at higher density;
 - Infill of under used and undeveloped areas;
 - New development locations within UEA's ownership and/or control and within approximately five minutes/500 metres of the Registry buildings; or
 - A combination of some or all of the above.
- There is limited scope for more intensive use of facilities.
 - Radical redevelopment of the Campus is unlikely to be desirable due to cost, environmental impact and the listed nature of many of the buildings amongst other things.
 - Locations for infill within the development have been explored and these are outlined in Appendix 4. The sites within the existing built form that have specific buildings allocated to them will provide in the order of 30,000 sq m.
 - Three new development locations are recommended for future development: Earlham Hall and surrounds, the former Blackdale School site and land between Suffolk Walk and Bluebell Road.
 - The Earlham Hall and Blackdale School sites are estimated to provide approximately 20,000 sq m of new floor space. The remainder of the required land would need to be provided by the Suffolk Walk site.
 - It is considered that the south-easternmost part of the Campus be the preferred location for residential use. This would be in keeping with the existing land use pattern within the Campus which retains the more centrally located areas for uses relating to the teaching of subjects and research whilst locating residential accommodation in the furthest parts. This supports the principle of interdisciplinarity, ensuring that all teaching and research accommodation is as close as possible, reducing walking distances between different areas of study.
 - When viewing the floorspace values, it would appear that much of the floor space requirements up to 2030 can be accommodated within the existing defined Campus, Earlham Hall and surrounds and the former Blackdale School site. However, it is considered that the Earlham Hall and former Blackdale School sites are not suitable for residential uses and therefore parts of the area between Suffolk Walk and Bluebell Road that may need to be developed prior to 2030.

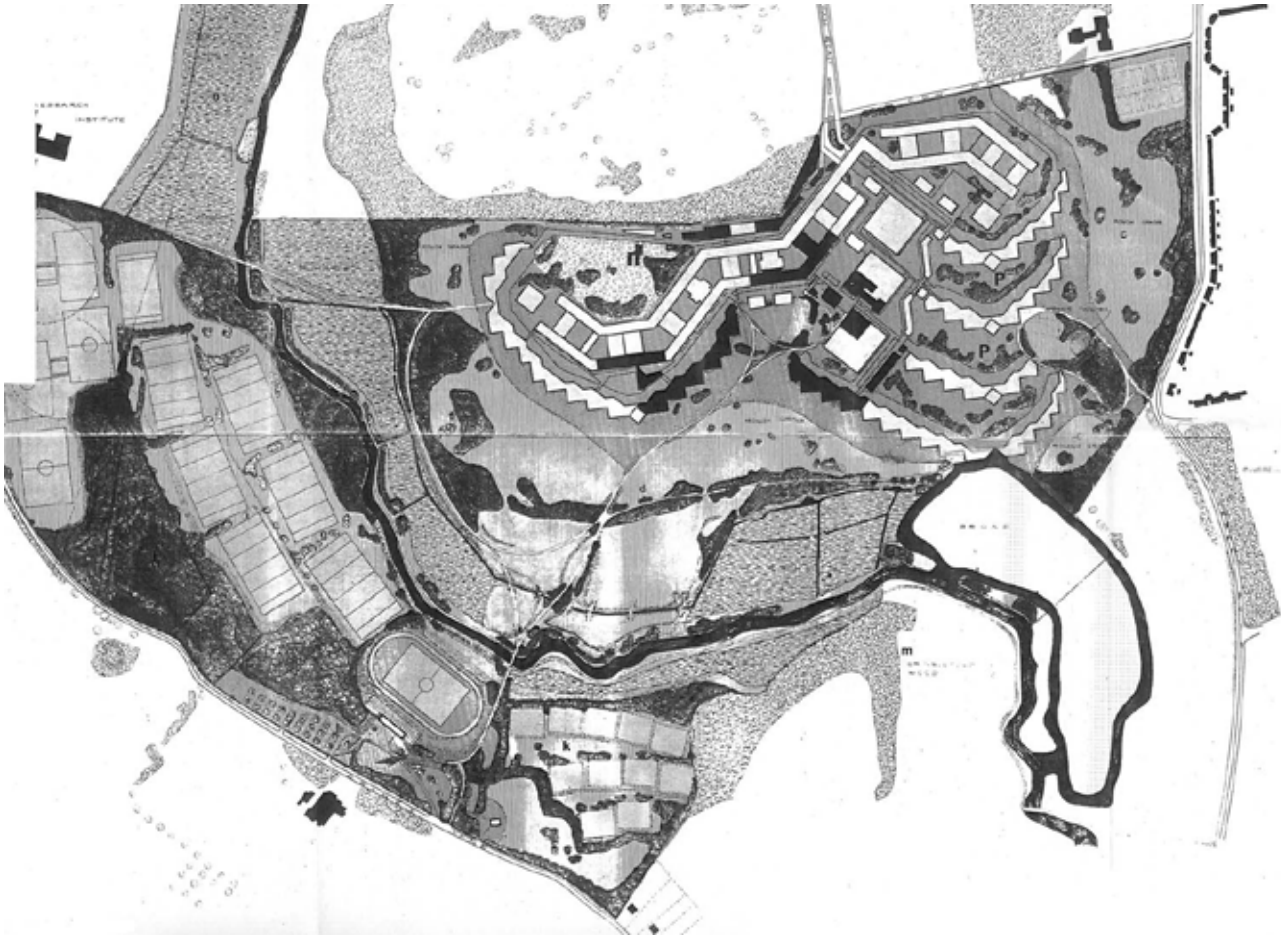
PROPOSED REVISIONS TO THE DESIGNATED CAMPUS AREA

In light of the information within this document, it is recommended that the area defined as 'University Campus' and shaded pink in the City of Norwich Replacement Local Plan (shown in pale pink below), be revised to include the areas shown below in magenta below.



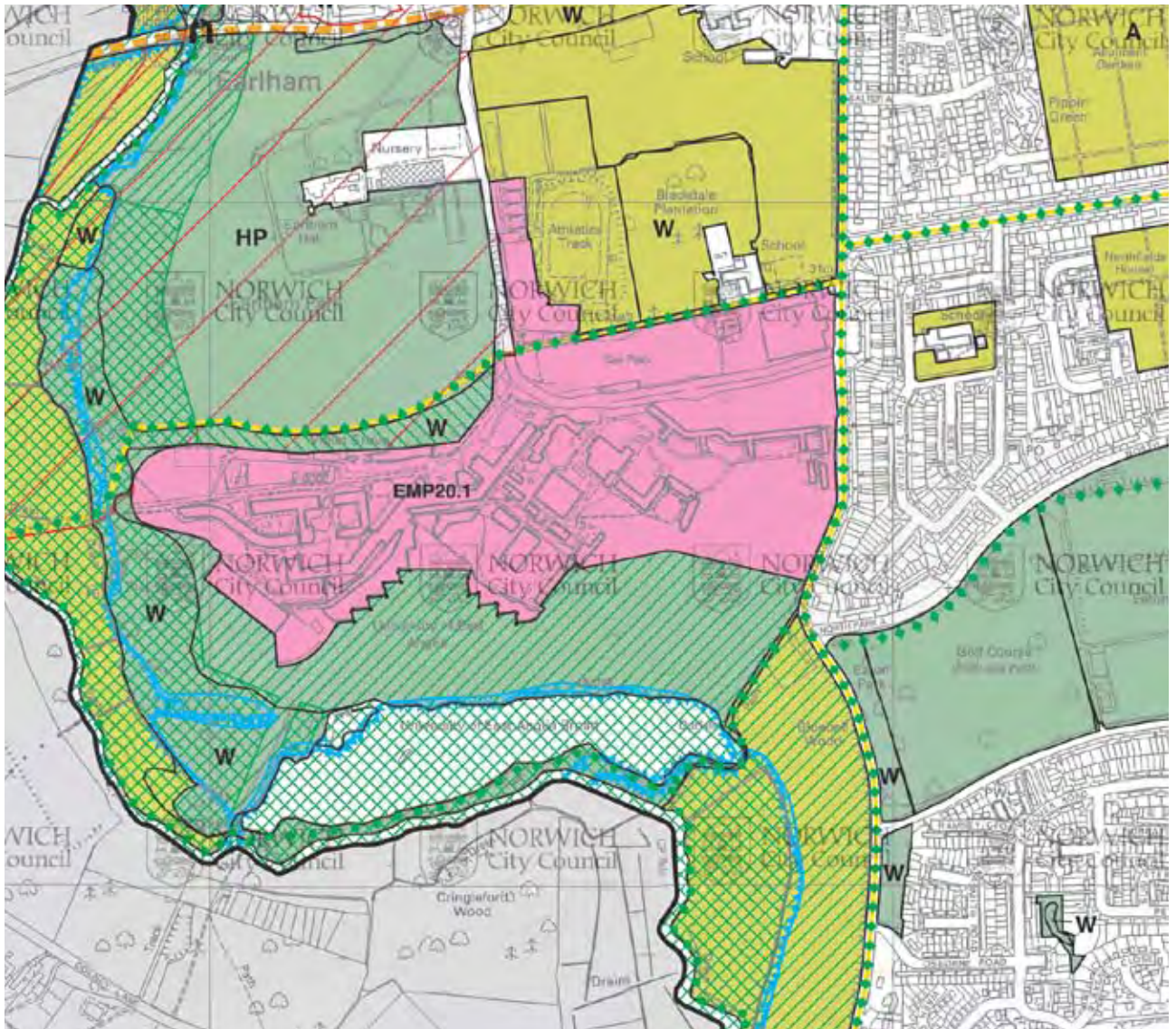
Above: Plan showing proposed revisions to UEA Campus area as defined in City of Norwich Replacement Local Plan (2004).

Appendices





1 Plans

1.1 CITY OF NORWICH REPLACEMENT LOCAL PLAN MAP







**City of Norwich
Replacement Local Plan
Adopted Version, November 2004
Proposals Map**

GENERAL

-  Plan Boundary
-  Inset Map Boundary

NATURAL ENVIRONMENT

-  River Valley/Environmental Assets (Policy NE1)
-  Wetland (Policy NE2)
-  Sites of Special Scientific Interest/Special Areas of Conservation (Policy NE5, 6)
-  Other Sites of Nature Conservation Interest (Policy NE7)

HERITAGE AND BUILT ENVIRONMENT



-  Scheduled Ancient Monuments (Policy HBE1)
-  Cathedral Precinct and Areas of Standing Remains (Policy HBE2)
-  Area of Main Archaeological Interest (Policy HBE3)
-  Conservation Areas (Policy HBE6)
-  Churchyards and Cemeteries (Policy HBE10)
-  Gateways to the City (Policy HBE14)

ENVIRONMENTAL PROTECTION

-  Contaminated Land or Former Landfill Sites (Policy EP1)
-  HSE Consultation Sites (Policy EP3)
-  Renewable Energy Site (Policy EP10)
-  Flood Risk - Functional Floodplain (EP11)
-  Flood Risk - 1 in 100 Year Risk (EP12)
-  Renewable Energy Site (Policy EP19)

EMPLOYMENT AND BUSINESS

-  Prime Employment Areas (Policy EMP4)
-  General Employment Areas (Policy EMP5) (Striped where coincident with other policies)
-  Single Occupier Employment Sites (Policy EMP7)
-  Area for Vehicle Showrooms (Policy EMP6)
-  Proposed Employment Sites (Policy EMP9 - 15)

-  University Campus (Policy EMP9 - 15)
-  Area for Rail Freight Users (Policy EMP9 - 15)



SHOPPING

-  District Centre Retail Area (Policy SHO3, 12)
-  Local Centre Retail Area (Policy SHO3, 12)
-  New/Extended District Centre (Policy SHO12, 13)
-  Retail Warehouse Parks (Policy EMP18)

HOUSING

-  Committed Housing Sites (Policy HOU6)
-  Housing Allocation Sites (Policies HOU9 - 12)
-  Sites for Travellers/ Showground Operators (Policy HOU20)

ARTS, ENTERTAINMENT AND COMMUNITY

-  Site for Health Care Facility (Policy AEC4, 5)
-  Site for Education Facility (Policy AEC6)

SPORT AND RECREATION

-  Urban Greenspace (Policy SR3) (Striped where coincident with other policies)
-  Publicly Accessible Recreational Open Space (Policy SR3)
-  Proposed Public Recreational Open Space (Policy SR5)
-  Historic Parks and Gardens (Policy SR8)
-  Allotments (Policy SR9)
-  Bowthorpe Southern Park (Policy SR10)
-  Riverside Walk (Policy SR11)
-  Riverside Walk Proposed (Policy SR11)
-  Green Links Network (Policy SR12)
-  Green Links Network Proposed (Policy SR12)

TRANSPORTATION AND ACCESSIBILITY

-  Norwich Airport - Operational Area (Policy TRA1)
-  Strategic Cycle Network (Policy TRA15)
-  Strategic Cycle Network Proposed (Policy TRA15)
-  Major Road Network (Policy TRA16)
-  Park and Ride Site (Policy TRA18)

1.2 LOCATION OF CAMPUS AREAS



1. University Broad
2. River Yare
3. University Fen
4. Institute Fields
5. Butterfly Meadow
6. The Heronry and Violet Grove
7. Bluebell Marsh
8. Lusty Hills
9. New Plantations
10. Sports Fields
11. Blackdale Plantation
12. The Hay Meadows
13. University Drive (North)
14. Chancellor's Drive
15. Constable Terrace (West)
16. Constable Terrace (South)

-
17. School of Biological Sciences (South)
 18. Elizabeth Fry Building (Car Park)
 19. Courtyard 1: Chancellor's Walk
 20. School of Biological Sciences (North)
 21. Courtyard 2: East of School of Education and Lifelong Learning
 22. Founders Green
 23. Spanish Copse
 24. The Square and The Street
 25. LCR Car Park
 26. Formal Gardens
 27. East-West Link
 28. Eastern Hall of Residence
 29. North of Nelson Court and Broadview Lodge
 30. South of Nelson Court and Broadview Lodge
 31. Eastern Campus
 32. Courtyard 3: South of Library
 33. Courtyard 4: Harbour Pines
 34. Norfolk and Suffolk (Service) Roads
 35. The Prospect
 36. Strawberry Fields
 37. Main Car Park and Biomass Energy Centre
 38. INTO and Health & Community Centre

1.3 LOCATION OF CAMPUS BUILDINGS



KEY BUILDINGS ON THE CAMPUS (numbering refers to the Conservation Development Strategy, except where recent additions have added numbers 127 to 134).

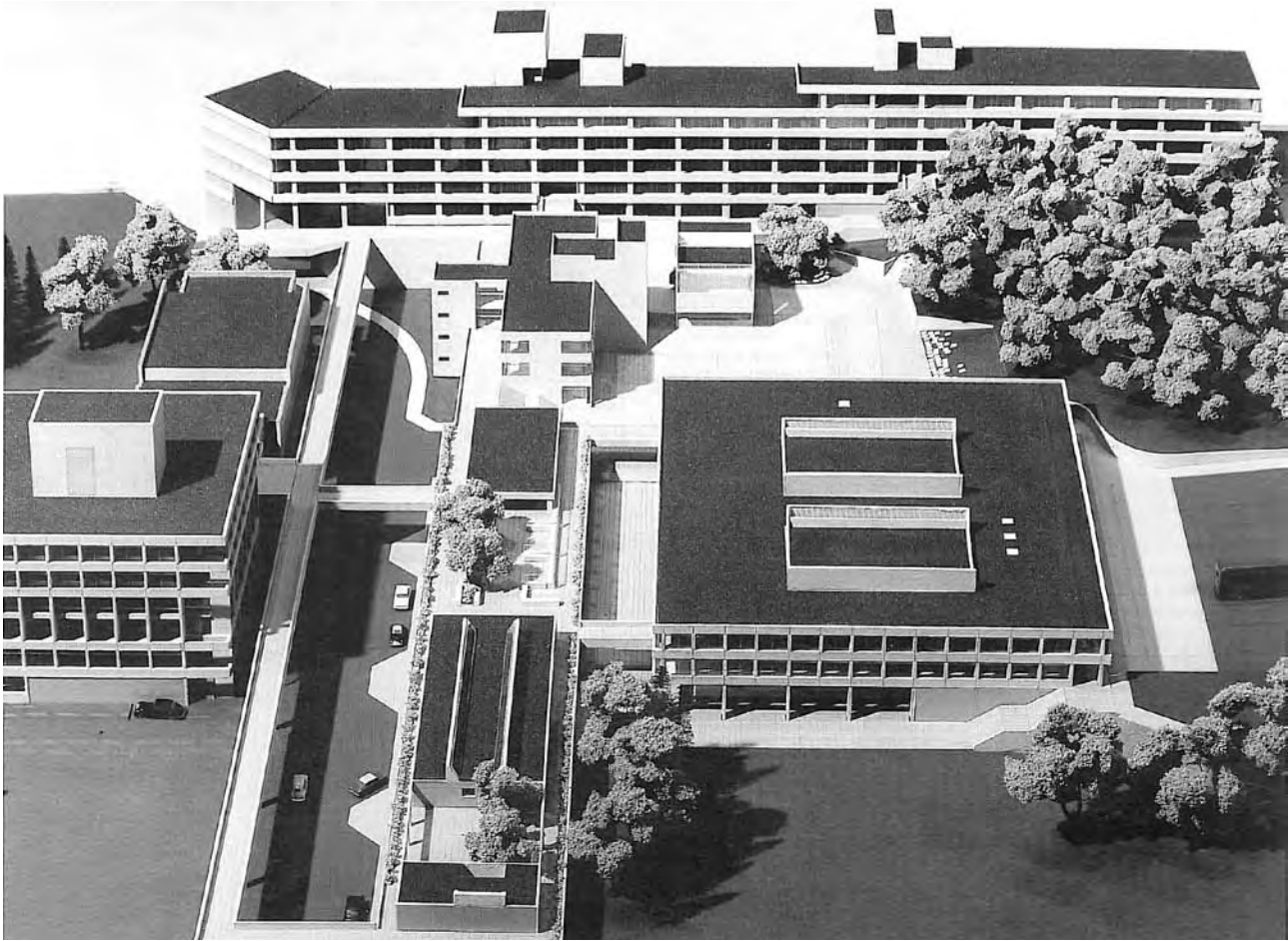
- 1 The Lodge
- 2.1 Council House
- 2.2 Registry
- 3.1 Teaching Wall: Arts II
- 3.2 Teaching Wall: Arts I
- 4 Teaching Wall: Chemical Sciences and Pharmacology
- 4.1 Biophysical Chemistry
- 5 Teaching Wall: Environmental Sciences
- 6 Teaching Wall: Biological Sciences
- 7.1 Sainsbury Centre for the Visual Arts
- 7.2 Crescent Wing
- 8 Climatic Research Unit
- 9 Education and Computing Sciences
- 10 The Queen's Building
- 11 Elizabeth Fry Building

12	Computing Centre
13	Lecture Theatres
14	Library
15	Chaplaincy
16	Restaurant
17	Union House
18	Shops with offices above (Street)
21	Music Centre
22	Careers Centre
23	Congregation Hall (old sports hall)
24	Drama Studio
25	Boiler House, etc
28	Health Centre (former) - now Academic Building East
33	SportsPark
43	School of Medicine, Health Policy and Practice
44	Zuckerman Institute for Connective Environmental Research (ZICER)
101	Orwell Close
102	Wolfson Close
103	Nelson Court
104	Suffolk Walk
105	Suffolk Terrace
106	Norfolk Terrace
107	Constable Terrace
125/126	Colman House
127	Brown House
128	Kett House
129	Victory House
130	Paston House
131	Britten House
132	Health and Community Centre
133	INTO >> UEA
134	Biomass Energy Centre

1.4 LOCATION OF ROADS



1. Earlham Road
2. Watton Road
3. Fiveways Roundabout
4. Bluebell Road
5. University Drive
6. Chancellor's Drive
7. Cow Drive
8. The Avenues
9. Potential Bus Link to NRP West
10. Tollgate Way
11. Colney Lane
12. Norwich Research Park West
13. Norwich and Norfolk University Hospital



2 Summary of Historic Development

The creation of the University at Norwich began in the summer of 1960 when the University Grants Committee appointed an Academic Planning Board. In July 1961, they selected the first Vice Chancellor, Frank Thistlethwaite (1915 - 2000), a Historian at Cambridge University. He was a specialist in American history and had worked at American Universities. Thistlethwaite took up his post in October 1961 and held it until his retirement in 1980. His distinctive vision of the University was to loosen traditional subject area boundaries and move to more interactive, interdisciplinary teaching. Whilst disciplines were grouped into schools of study and contact between the schools was encouraged, seminar teaching was promoted. The University was to be a single community in which networking would be maximised. These educational and social ideas fed directly into the physical plan of the University.

At the embryonic University of East Anglia, it was clear that permanent buildings on the new Earlham site could not be ready for some years. The University leased Earlham Hall and a temporary University Village was built on a nearby site between December 1962 and July 1963. The first undergraduates (112) arrived in October 1963. One of the first tasks of Frank Thistlethwaite when

he took up the post, was to make arrangements for the University's permanent buildings.

To do this, various architectural practices were interviewed. After the process of selection was carried out, Denys Lasdun and Partners (DLP) were appointed in March 1962. The initial brief between Thistlethwaite and Lasdun on the nature and needs of the University discussed the academic and social implications of centralised facilities, as opposed to separate colleges, and the need to bring disciplines together. It was agreed that a tight grouping of buildings to minimise distances and to create an urban quality to the University would be best suited. Lasdun was tasked with planning a university of 3,000 units to be built over 10 years, with scope for further expansion to 6,000 units.

Lasdun's exceptional achievements are best exemplified by three remarkable buildings:

- The Royal College of Physicians;
- The National Theatre; and
- The University of East Anglia itself.

The Project Team drew up different ideas for the University Masterplan and their ideas were strongly influenced by the topography of the site, with buildings being concentrated on the higher ground towards the northern boundary. In the first design studies, the central group of buildings was located towards the west of the built-up zone, looking down the steep hillside to the bend of the River Yare, with the remaining accommodation extending towards the east. Lasdun saw the opportunity of moving the main focus to a central provision, with eastward and westward patterns of growth divided by a "harbour". This was the generating idea which led to the masterplan.

Two important themes emerged in the studies: firstly, the zigzagging residential blocks appeared at an early stage, forming a boundary between the open site and the teaching accommodation. Secondly, multi-level solutions, with raised decks and walkways were a constant feature throughout the design development. Lasdun's scheme was developed over a number of years, according to some generating principles:

- Concentration – the University was seen to be compact, a place where activities emerged and where the individual can sense identity within the whole place. All activities were to be located within five minutes' walking distance and linked by continuous pedestrian routes;
- Limitation of spread – to protect an area of publicly accessible open space;
- Linkage and movement – elevated walkways carrying services and running horizontally against the natural slope of the buildings were designed. This was to give a degree of concentration otherwise obtainable only by the more extensive use of lifts, allowing the separation of pedestrians from vehicles and encouraging chance



Sir Denys Lasdun.

encounter;

- Student living – the accommodation was designed to fully integrate with the University as a whole and to be capable of fostering small groups within the larger community;
- Materials – Concrete, in its natural grey state, was chosen as it was deemed best to enhance the colours of the landscape to their greatest advantage. It was important that there should be a predominance of this material, with a range of neutral colours; and
- Growth – A central nucleus was quickly established within the design proposals that would allow growth to extend away from it towards the east and west.

The design language of UEA is best expressed by looking at Lasdun's revised Development Plan (Draft 3) produced in September 1963. In this diagram, it can be clearly seen that the original concept was for a double section Teaching Wall, separating the parkland to the north from the University to the south and for there to be an edge to the southern side of the University of the Ziggurat style buildings fronting onto the Broad, including a location much closer to the edge of the existing water than currently occurs.

There are a number of important key themes contributing towards the understanding of the architecture of Lasdun at UEA.

- Firstly, urban quality - Lasdun was determined to provide a University which would be more like a city than a suburb. The unbroken continuum of teaching and living spaces form an architecture of urban landscape rather than a collection of disparate Campus buildings;
- Secondly, segregation of pedestrians and vehicles. Interestingly enough, the pedestrian route was not integrated into the linear Teaching Wall, but built as a separate walkway alongside, but detached from, the face of the building. This was to create an intermediate element, which is neither building nor landscape and Lasdun wished to emphasise the sloping site, meaning that the raised walkways connect to ground level at the entry point to the Campus. The walkways themselves provide many of the best views of UEA's architecture, like those between the Ziggurat roof towers and the narrow space between Norfolk Terrace and the Teaching Wall;
- Thirdly, Lasdun believed that concrete was the definitive material of the 20th Century and its blander colour allowed the landscape itself to speak more loudly than the buildings; and
- Fourthly, there was an integration between the landscape and the "harbour concept" that Lasdun envisaged. For Lasdun, the harbour was a crucial design idea opening up the area between Norfolk and Suffolk Terraces, bounded the Library, the Lecture Theatres and the Computing Centre.

There are a number of key buildings, which were part of Lasdun's Stage 1 Development Plan and these were listed as buildings of special architectural or historic interest in 2003.



Ziggurats (listed Grade 2) – two of the ranges of residential accommodation, Norfolk and Suffolk Terraces, soon came to be known as the Ziggurats due to their distinctive form. They were a fundamental part of the landscape for UEA and the idea of fringe residences facing south over the landscape was fully developed in the first Development Plan draft in April 1963. The Ziggurats that were built were completed in 1965-1967. The UEA residences were an extreme case of the stepped section, both in terms of the large scale impact when seen from a distance and the ingenious three dimensional packing that was achieved. Each comprises 5, 6 or 7 habitats of 12 rooms (10 single and 2 double) each with a kitchen, utility, shower room, bathroom and toilets.

The idea of student groupings of this size had been established in the early discussions between Thistlethwaite and Lasdun. Each Ziggurat is 32 metres long set in a linear block that appears saw-tooth in plan. The setback between

Above: View from the Ziggurats towards the Broad.

levels allows very low ceiling heights in the corridors and service areas, reducing the overall height of the building.



Above: The Teaching Wall.

Teaching Wall (listed Grade 2) – the idea of a linear ‘spine’ for the University’s academic space emerged in Lasdun’s design studies during 1962. The Stage 1 Teaching Wall, as completed by Feilden + Mawson, is 460 metres long. Lasdun envisaged a longer wall with a second parallel wall to the north, connected by linking blocks. The Arts spur is the only one of these linking blocks to have been built.

Library (listed Grade 2) – the library was constructed in two phases, between 1965-1967 (west part) and 1971-1974 (east part). A blank temporary wall closed off the first phase.

Although the library was sited to permit growth, proposals for expansion have proved controversial. Feilden and Mawson completed the second phase to the southwest in a language indistinguishable from Lasdun. Approved in 2004, Shephard Epstein Hunter designed the third and fourth stages.

When Denys Lasdun and UEA parted company in 1968, the University turned to

a Norwich based practice, Feilden + Mawson, and over the next five years they oversaw the completion of Stage 1 of Lasdun's development plan, with various adjustments.

Feilden + Mawson departed more radically from the Development Plan in the central area where Lasdun's ideas proved over optimistic and unaffordable. The Union House, the restaurant building, the Chaplaincy, the shopping street, Congregation Hall (the former sports hall), Council House and the Registry were all new designs by Feilden + Mawson and other architects, mostly from Norwich and East Anglia. Continuity with the Lasdun buildings is helped by the consistent use of concrete. Whilst these buildings do not seem to be as memorable as Lasdun's, they are subsidiary and do not detract from the architectural impact of Lasdun's original work. They were essential for making the new Campus at UEA a complete and viable University. Accordingly, as an ensemble, they are a significant statement.

Sainsbury Centre for Visual Arts - Another notable building on UEA Campus is, of course, The Sainsbury's Centre, which is one of Foster's early masterpieces, comprising a single storey flat roof "shed-like" architecture. This architectural theme first brought him to prominence. The Sainsbury's Centre is the ultimate refinement of the shed, where the geometry is no more than an absolutely plain box with infinite care and effort into material and detailing. Although the large-scale geometry is simple, the Sainsbury's Centre provides a powerful impact, both externally and internally. However, the layout of accommodation for the School of World Art and Musicology seems to have been determined more by the architectural concept than the users' preferences. The Sainsbury's Centre is seen as one of the most important buildings of the 1970s. The Crescent Wing is less prominent and less significant, even through it is designed and built to a higher standard.



*Above: The Library extension.
Below: Feilden and Mawson's design for the area around University Square.*



Below: The Crescent Wing extension to the Sainsbury Centre.



In 1982, Norman Foster recommended that Rick Mather be taken on as the Architect for the University's new building projects. His first design was for a new education building, completed in 1984, and was funded by the sale of Keswick Hall, a teacher training college that merged with UEA. Mather also designed new buildings for the Climatic Research Unit and Systems. He was then asked by UEA to prepare a 20 year Development Plan and appointed as consultant architect from 1988-1994. One decision made was that Lasdun's Development Plan for the Teaching Wall and the Ziggurats would not be continued since buildings of such a scale, character and costs were now impossible. Equally, the raised walkways were abandoned and circulation in new buildings would be at ground level. Mather planned Chancellor's Drive as the generator of the new urban form in the area to the north of the Teaching Wall and suggested it should continue across the River Yare and form a new access route into the Campus, but this was not possible.

A new building programme started in 1989. The sale of the University village site financed new student residences at Constable Terrace and Nelson Court and a new drama studio to replace the small theatre in the University Village. These buildings were all designed by Mather and completed in 1994. At the same time, the Department of Health financed a new building for occupational therapy and physiotherapy. This was the Queen's Building, designed by John Miller and Partners and completed in 1993. The Elizabeth Fry Building, also designed by John Millers and Partners, was completed in 1995. All these developments follow the principles set out in Mather's Development Plan.

The SportsPark was the outcome of a joint venture between the Local Authority and UEA to establish a regional sports centre. Most of the funding for this was from the Sports Council. It is located just outside UEA site boundary on Local Authority land but managed by UEA. It was designed by the RH Partnership and completed in 2000.

In the last few years, new academic buildings have been added: phase 1 of the School of Medicine, Health Policy and Practice, which was designed by RMJM and completed in 2003, Zuckermann Institute for Connective Environmental Research (ZICER) completed in 2003, the circular Biophysical Chemistry Building designed by RH Partnership and completed in 2002 and an extension to the School of Biological Sciences, designed by RH Partnership and completed in 2005.

The Landscape Strategy, completed in July 2009, reinforced the unique qualities of the Campus, and highlighted the need to ensure that any new development is of the highest standard and complements the landscape setting.

With the prevailing pace of change within the higher education sector, there is a need now to give the University an opportunity to review and contemporarily plan its future with regard to its own Corporate Plan, the Conservation Development Strategy, the Landscape Strategy and other related documents. These include the City Council's Planning Policies, which are currently being reviewed as part of the new Local Development Framework Strategy and the proposals for UEA located on the University's land within South Norfolk District Council.



3 Other Documents and policy

The Development Framework Strategy provides the opportunity to bring together the various strategies and plans produced by the University and other stakeholders. Collectively, these documents inform the process of understanding the options for growth, the constraints and opportunities for development and the need for a form of flexible phasing to allow various options for development in the future.

From these documents, an understanding of the context of the University's development and the establishment of Strategic Principles has been gained to inform the Norwich City Council's Local Development Framework Plan.

3.1 LOCAL DEVELOPMENT FRAMEWORK

The policies in the deposit version City of Norwich Local Plan (2004) recognise the University's economic importance to the region, but to a lesser extent admit to its expansion needs – as illustrated by the pink area shown on the extract from the Norwich City Local Plan (see Appendix 1). Accordingly, it is essential that the Local Development Framework (that is programmed for completion by 2013) adopts the Conservation Development Strategy and the Development Framework Strategy. In this regard the increasing importance of connectivity between the constituent members of the Norwich Research Park is vital in the drive towards a knowledge economy. South Norfolk Council is further ahead in formulating its policies for its Local Development Framework and intends to adopt its Development Brief for the Norwich Research Park. The South Norfolk Council Development Brief makes specific reference to a public transport, pedestrian and cycle links between the constituent members of the Norwich Research Parks – the Colney Lane Bus Link.

3.2 CORPORATE PLAN

The Corporate Plan sets out the Mission Statement and Vision of the University for its future development. It then sets out key objectives and strategies to achieving that vision. The document sets out its vision as:

- Understanding - To advance understanding through research, scholarly communication and research-led teaching, underpinned by a commitment to excellence, interdisciplinarity and creativity;
- Empowerment - To empower our students by providing an exceptional education and a wider experience that is second to none and equipping them with marketable skills and preparing them for global citizenship;
- Action - To respond to the grand challenges of the 21st Century through the fruits of our research, the talents of our graduates, our engagement with policy-makers, businesses and communities, and our undertaking to be sustainable.

The objectives to achieving the vision are:

Understanding through research

- To increase the scale and impact of our research;
- To advance significantly our international research reputation.

Empowerment through education

- To provide a student experience that is second to none in the UK;
- To continue to increase the quality, number and range of student applicants.

Action through enterprise and engagement

- To expand our contribution to public policy and public engagement;

- To promote innovation and the growth of the knowledge economy.

Resourcing the vision: People

- To attract, develop and retain staff of the highest calibre;
- To empower them through decentralised decision-making;

Resourcing the vision: Finance

- To ensure that our activities are sustainable financially;
- To initiate an advancement campaign to increase our endowment.

Resourcing the vision: Facilities and Environment

- To become an exemplar of good practice environmentally;
- To enhance the Campus and make its excellent facilities widely accessible.

Organisation and management

- To improve our management processes and the quality of University services;
- To strengthen our communications and external relations.

3.3 BUSINESS STATEMENT - TOWARDS 2030

‘UEA Towards 2030’ was intended to further flesh out the Vision in the Corporate Plan, of how UEA may develop over the next 20 to 30 years and for what it should be planning. It does caveat this by saying that this is only one view of how the University should develop, but assumes that UEA, with its capital as an established and respected university with consistently high markings in League Tables, such as Ofsted and QAA audits, is well placed to forge forward, developing, expanding and innovating in the next 20-30 years.

3.4 SUSTAINABLE TRAVEL PLAN

Since its adoption by the Norwich City Council in December 2002, the University has implemented a Sustainable Travel Plan introducing, for example, car park charges, public transport subsidies, improved cycle access and facilities on Campus, car sharing incentives and parking prohibition based on post codes. Integral with the Plan and in anticipation of continuing growth in line with the Central Development Strategy, it anticipates decking the Main Car Park and implementation of the Colney Lane Bus Link. In August 2006 it went through its most recent review with the Norwich City Planning Committee and as a consequence, it continues to enjoy Committee support.

An updated transport policy is currently under consultation which will bring the University Travel Plan up to date.

3.5 COLNEY LANE BUS LINK

Because the land over which the Colney Lane Bus Link runs falls under the Planning jurisdiction of both South Norfolk Council and the Norwich City Council, the University will make the same Full Planning Application to both planning authorities. It sees the link as providing the connectivity upon which a dynamic and vibrant Norwich Research Park depends (Norwich Research Park Vision, 2008-2013).

3.6 THE LANDSCAPE STRATEGY

Following a meeting in July 2003 with Senior Officers from Norwich City Council, the Chief Executive and the Chairman of the Planning Committee, the University was able to persuade the City Council to abandon its proposal for Conservation Area status in favour of the University developing a Landscape Strategy. Whilst the University has only recently embarked upon its generation, the imposition of Listed Status later in 2003 frustrated its intention to pursue the strategy sooner. Fortunately, the Conservation Development Strategy reaches beyond the curtilage of the Listed Buildings and assesses the landscape. It makes a number of policy statements in recognition of the importance of the landscape – together with recommendations for its preservation until a strategy is formulated. The Landscape Strategy was completed in 2009.

3.7 THE CONSERVATION DEVELOPMENT STRATEGY

The Conservation Development Strategy is proving to be a successful example of a constructive and collaborative approach to the conservation of complex modern buildings, where the desire to retain architectural significance must be reconciled with the necessity of maintaining effective economic use. Whilst supported by the Norwich City Council Planning Committee in 2006, until the heritage reform legislation is enacted, current usage is voluntary. However, the mere fact of usage is important in itself, proving the worth of this type of approach to conservation. Benefits have been experienced by:

- The University as the keeper of these important buildings;
- Norwich City Council with its administrative responsibility for policing their proper care; and
- English Heritage, which is reassured that architectural significance is understood and respected.

The University maintains close contact with Norwich City Council, regularly forwarding a log of alterations and refurbishments it is contemplating undertaking on its Listed Buildings. The electronic log records works in contemplation, progress and completion; it keeps a photographic record and drawn illustration of the building works both before and after they are carried out. It describes the works by reference to the Conservation Development Strategy and it records the regime of consent by which the works were achieved. Although the vast majority of these works fall within the guidance of the Conservation Development Strategy, some are so radical they require the

involvement of English Heritage and Listed Building Consent.

During the last two years, since the Conservation Development Strategy came into use, the University has carried out in excess of 90 refurbishment projects to its Listed Buildings. Only a handful has required input from English Heritage. This represents an enormous saving in resources, time and cost for all three stake holders: the University, Norwich City Council and English Heritage. It allows the University to pursue its core businesses of teaching and research without disruption, something in which it would almost certainly have been frustrated had not the Conservation Development Strategy been in place. It has also proved an invaluable platform upon which to build the Landscape Strategy.

3.8 CONCRETE PRESERVATION PLAN

In strategic terms the Plan is likely to become a cyclical activity, the implementation of which is funded from the University's long term maintenance budget. By reference to (and by regular review of) the Plan, in line with the Conservation Development Strategy (of which it is to be a part and therefore subject to agreement with EH), it is hoped the repair of concrete will be kept to manageable proportions.

3.9 SUSTAINABLE ENERGY POLICIES

Since its adoption by Norwich City Council in December 2002, the University has implemented a Sustainable Travel Plan introducing car park charges, public transport subsidies, improved cycle access and facilities on Campus, car sharing initiatives and parking prohibition based on post codes. In August 2007, it went through a most recent review with the Norwich City Planning Committee and, as a consequence, the plan enjoys Committee support. In addition, the University has a long established reputation for energy efficient buildings and practical solutions to energy consumption. It has pursued a green agenda since the early 1990s and Academic Building West, the School of Nursing and Midwifery, the School of Medicine, Health Policy and Practice, the Elizabeth Fry Building, the Zuckermann Institute for Connective Environmental Research (ZICER), and Academic Building East provide the University will have no less than 30,000 sq m of energy efficient floor space.

Equally important to its Green Strategy is the Biomass Energy Centre, which reduces the energy carbon footprint for the University by 30% bringing its total reduction to 60%. The CHP Plant installation in 2004 delivered a 30% reduction immediately, some 20 years ahead of Government targets.

Carbon Reduction is a prime strategy for the University, which aspires to be a 'Low Carbon Campus' in its Corporate Plan.



4 Proposed Buildings

4.1 BUILDINGS WITH PLANNING PERMISSION

The Estates Development Strategy identifies the following buildings which have planning permission:

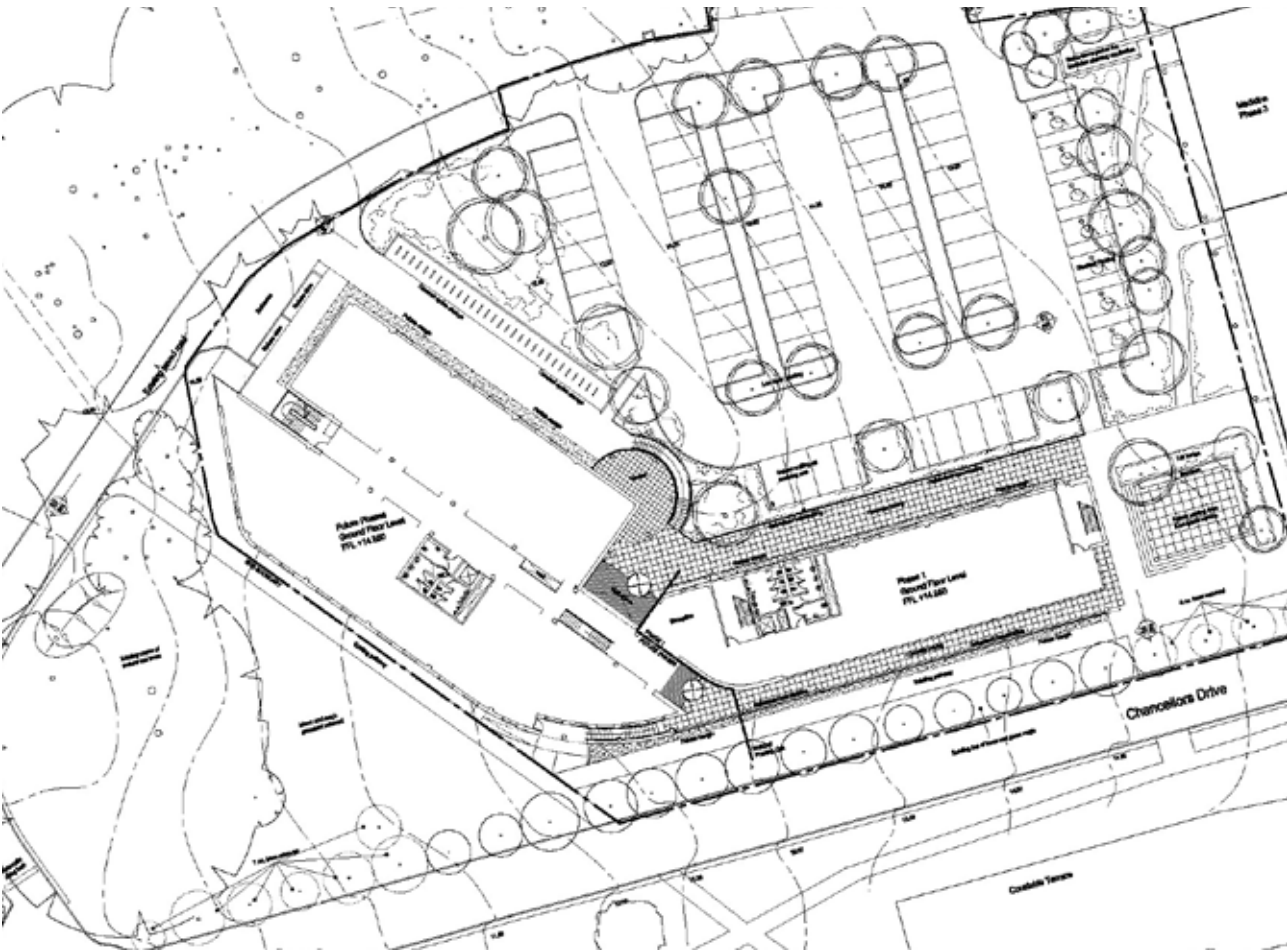
1. Academic Building West;
2. School of Medicine, Health, Policy and Practice - Phases 2B and 3
3. Central Library; and
4. Biomass Car Park.

In addition are the sites School of Midwifery at the Norwich and Norfolk University Hospital and the Triangle site at Norwich Research Park West. These do not form part of the total floor space identified in the Estates Development Strategy. The biomass car park does not contribute to the floor space identified in the Estates Development Strategy but does form an important input to the Travel Plan.

Total Gross Internal Area

The table in chapter 3 - Assessment of Need demonstrates that the buildings with planning permission will yield approximately 14,800 sq m of gross internal floor space.

1 Academic Building West



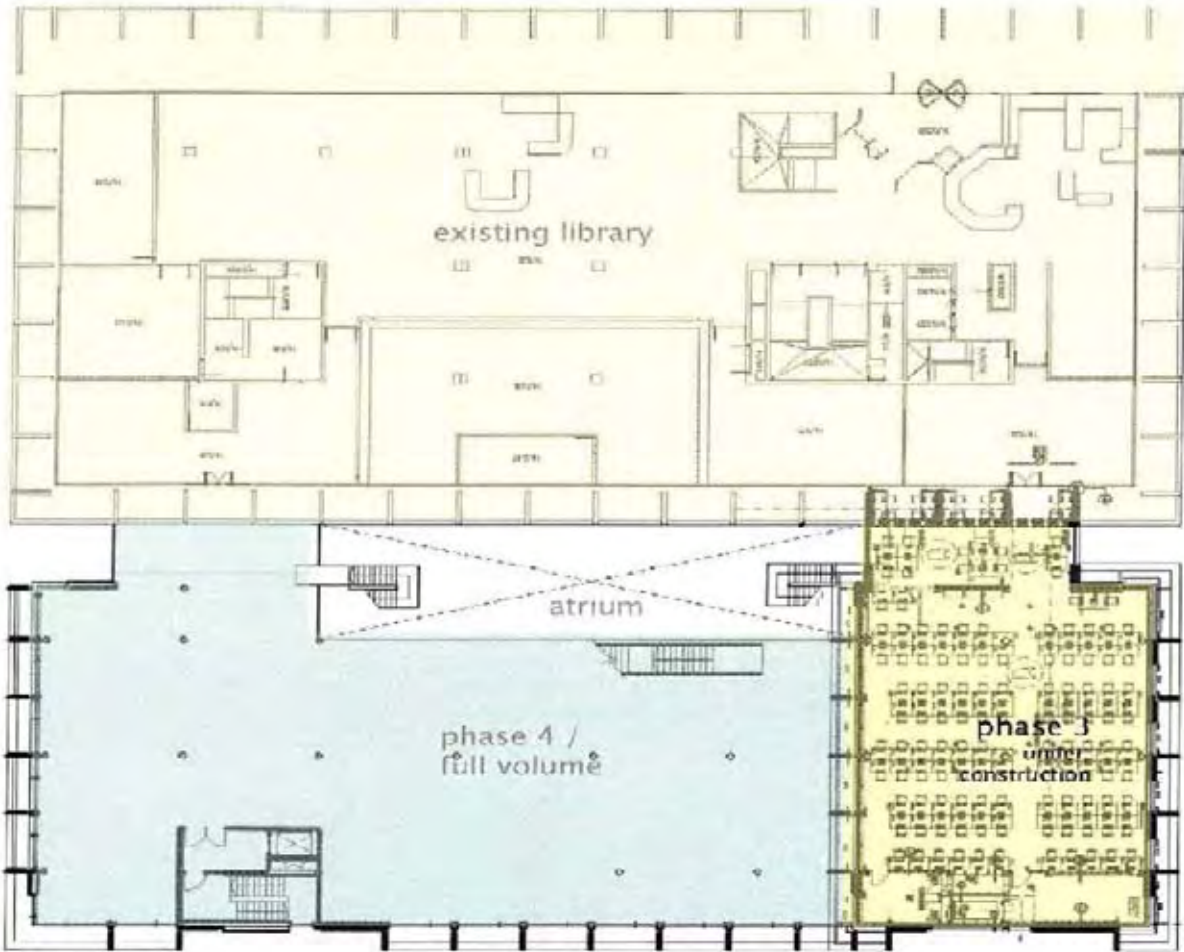
Academic building west will provide 7,500 sq m of gross internal floor area.

2 School of Medicine 2B and 3



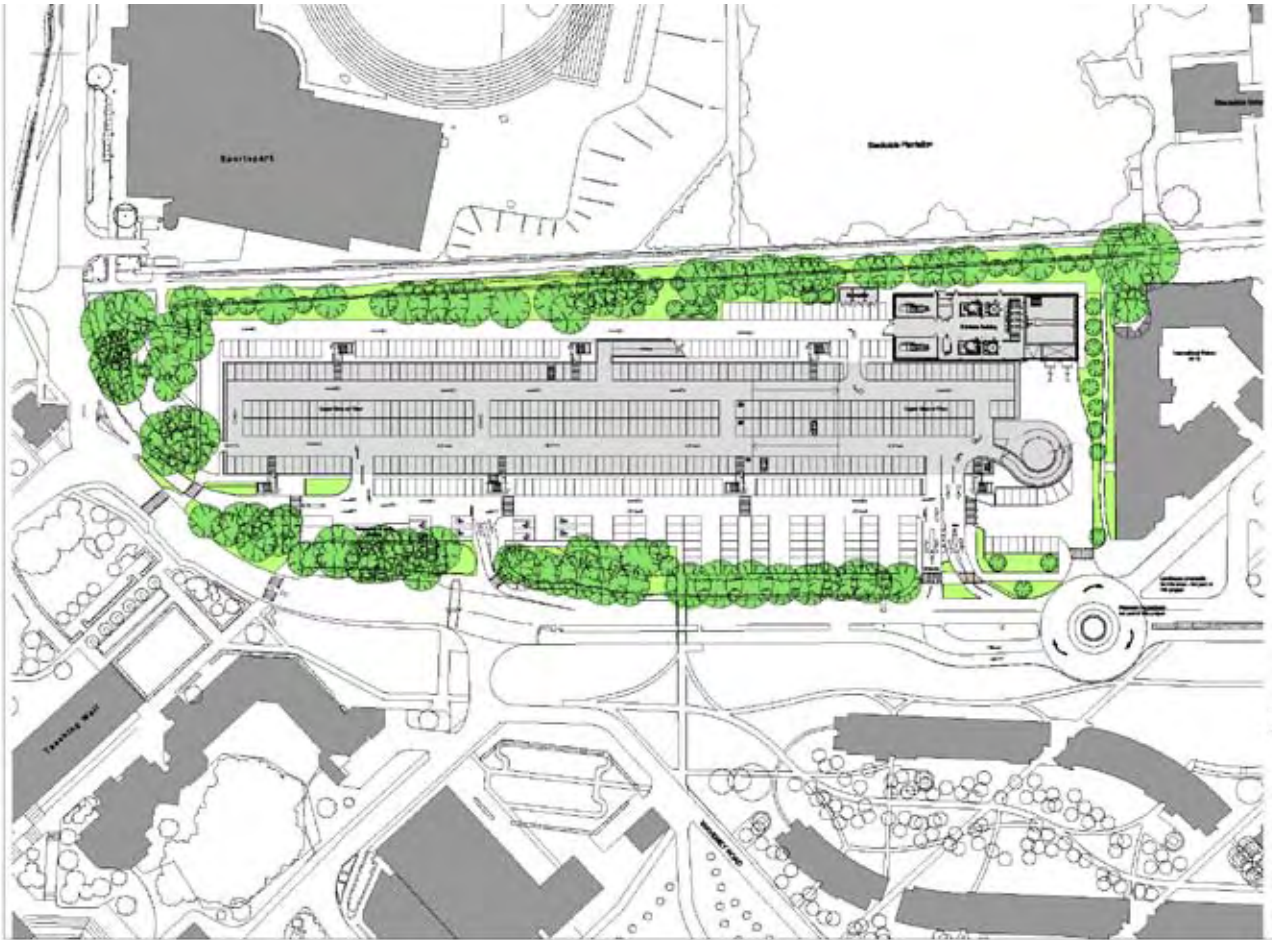
The School of Medicine phases 2B and 3 will provide 2,000 sq m of gross internal floor area.

3 Central Library



The library will be 6 storeys high and will provide 5,300 sq m of gross internal floor area.

4 Biomass Car Park



The car park will be 3-4 storeys high and will provide approximately 2060 parking spaces.

4.2 PROPOSED BUILDINGS WITHOUT PLANNING PERMISSION

The Estates Development Strategy identifies a series of proposed buildings without planning permission that will contribute to the overall floor space requirements of the Business Strategy.

1. Science Research Exchange;
2. Extension to Estates and Buildings Division;
3. Arts Research Exchange;
4. Congregation Conference Centre;
5. Teaching Wall Extension;
6. Alumni Tower Block; and
7. SportsPark Pool Extension.

In addition to those buildings listed above is the proposed extension to the Music school which does not form part of the overall figures.

The table in chapter 3 - Assessment of Need demonstrates that the proposed buildings without planning permission would yield approximately 39,200 sq m of gross internal floor area.

1 Science Research Exchange



The Science Research Exchange is designed to 'complete' the unfinished western end of the Teaching Wall and will provide 800 sq m of floor space.

2 Extension to Estates and Building Division



The extension to the Estates and Building Division building will be 3 storeys high and will provide 5,200 sq m of gross internal floor area.

3 Arts Research Exchange



The Arts Research Exchange will provide 900 sq m of gross internal floor area.

4 Congregation Conference Centre



The Congregation Conference Centre will replace the existing Congregation Hall, connecting to the Drama studio and providing a central courtyard area. The building will be 2 1/2 storeys high and will provide 8300 sq m of gross internal floor area.



5 Teaching Wall Extension



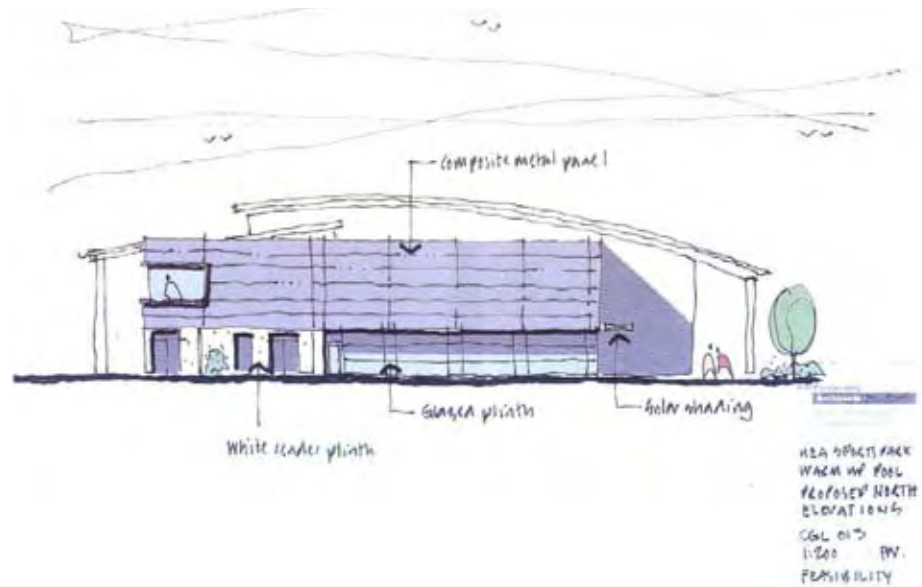
The Teaching Wall Extension would be 3-4 storeys high and would be located to the south of the proposed multi storey car park. The building would provide 20,000 sq m of gross internal floor area.

6 Alumni Tower Block



The alumni tower block will be 8 storeys high and will contain quality accommodation, storage and dining facilities. It will provide 3,000 sq m of gross internal floor area.

7 Pool Extension



The extension to the SportsPark swimming pool will be 2 storeys high and will provide 1000 sq m of gross internal floor area.



5 Options Testing

A number of sites have been considered for their suitability to potential future development and, as part of the Sustainability Appraisal, have been subjected to testing to assess their suitability for potential future development. The testing of each of the sites is included below. The sites were tested against the following criteria:

Visual Flow

A key characteristic positive feature of the Campus, as identified in both the Conservation Development Strategy and the Landscape Strategy, is the visual flow and interaction between the buildings and the landscape.

Built Form

The heading relates to the potential impact that the proposed development might have on the existing built form. This relates particularly to the effects on the setting of listed buildings, the composition of the Campus as a whole and the significance of the architectural design.

Yare Valley

The setting of the Yare Valley is an important and sensitive landscape resource and must be protected from encroachment by insensitive development.

Connectivity

The key founding principle of the University Campus is interdisciplinarity and the resulting need for all facilities to be within a short walking distance of the central area so that students may move between lectures with ease. This heading relates to the ease of movement within the Campus, either through shortness of distance or directness of routes.

Connectivity also relates to the connectivity of the Campus with the wider area. Sites are therefore tested as to whether or not they impair access into the site from the wider area, e.g. Bluebell Road and Earlham Road.

Legibility

Legibility is the ability of a person to 'read' the space. For example, how easy it is for a person to understand where to go on first visiting a place and how easy it is to remember where to go on subsequent visits. The study of legibility makes reference to different elements that make up the built form: paths, nodes, edges, landmarks and districts.

Landscape

The landscape of UEA is just as important part of the whole composition as the built form. It is perhaps the relationship between the built elements and the parkland landscape that contributes most to the significance of UEA Campus. This criterion relates to the potential adverse impact that buildings may have on the existing landscape, taking into account Colvin's original design concept.

Ecology

This relates to the potential impact that a new building or buildings may have on ecologically sensitive areas.

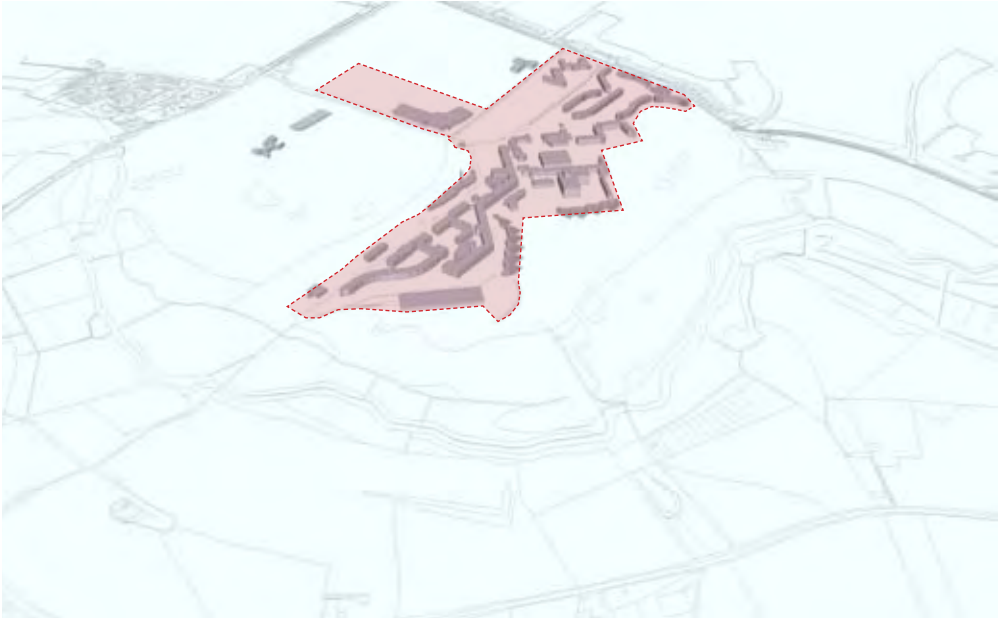
Flood Risk

This relates to the risk of the building from flooding, i.e. whether or not it falls within the flood risk zone. Generally, buildings on higher ground will be at less risk from flooding.

5.1 STUDY AREAS



5.2 EXISTING BUILT FORM



Factor	
Visual Flow	0
Built Form	?
Yare Valley	0/?
Connectivity	+
Legibility	+
Landscape	0
Ecology	0
Flood Risk	?

- + Positive effects
- Negative effects
- +/- Mixed effects
- 0 Neutral effects
- ? Uncertain effects (dependent on design)

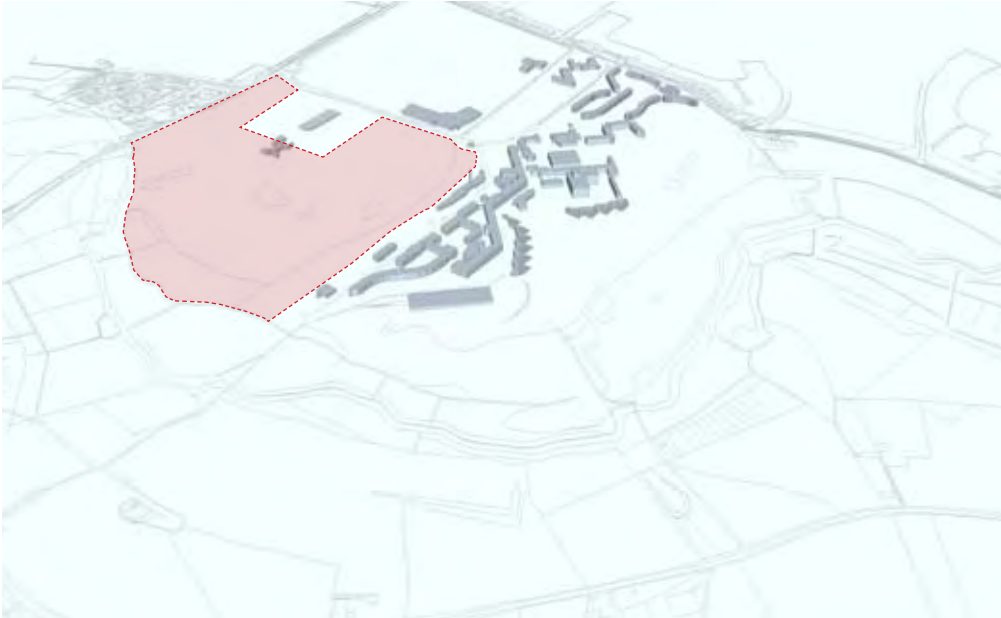
5.3 EARLHAM HALL



Factor	
Visual Flow	?
Built Form	?
Yare Valley	0
Connectivity	+
Legibility	+
Landscape	?
Ecology	0
Flood Risk	?

- + Positive effects
- Negative effects
- +/- Mixed effects
- 0 Neutral effects
- ? Uncertain effects (dependent on design)

5.4 EARLHAM PARK



Factor	
Visual Flow	-
Built Form	?
Yare Valley	?
Connectivity	+
Legibility	?
Landscape	-
Ecology	-
Flood Risk	?

- + Positive effects
- Negative effects
- +/- Mixed effects
- 0 Neutral effects
- ? Uncertain effects (dependent on design)

5.5 BLACKDALE SCHOOL



Factor	
Visual Flow	+
Built Form	+
Yare Valley	0
Connectivity	+
Legibility	+
Landscape	0
Ecology	0
Flood Risk	?

- + Positive effects
- Negative effects
- +/- Mixed effects
- 0 Neutral effects
- ? Uncertain effects (dependent on design)

5.6 THE PROSPECT



Factor	
Visual Flow	?
Built Form	?
Yare Valley	?
Connectivity	+
Legibility	?
Landscape	-
Ecology	-
Flood Risk	?

- + Positive effects
- Negative effects
- +/- Mixed effects
- 0 Neutral effects
- ? Uncertain effects (dependent on design)

5.7 THE HARBOUR



Factor	
Visual Flow	-
Built Form	-
Yare Valley	?
Connectivity	+
Legibility	?
Landscape	-
Ecology	-
Flood Risk	?

- + Positive effects
- Negative effects
- +/- Mixed effects
- 0 Neutral effects
- ? Uncertain effects (dependent on design)

5.8 AREA EAST OF SUFFOLK WALK



Factor	
Visual Flow	?
Built Form	?
Yare Valley	?
Connectivity	+
Legibility	?
Landscape	?
Ecology	0
Flood Risk	?

- + Positive effects
- Negative effects
- +/- Mixed effects
- 0 Neutral effects
- ? Uncertain effects (dependent on design)

5.9 AREA SOUTH OF THE SAINSBURY CENTRE



Factor	
Visual Flow	-
Built Form	?
Yare Valley	?
Connectivity	+
Legibility	+
Landscape	?
Ecology	?
Flood Risk	?

- + Positive effects
- Negative effects
- +/- Mixed effects
- 0 Neutral effects
- ? Uncertain effects (dependent on design)

5.10 AREA NORTH OF THE BROAD



Factor	
Visual Flow	-
Built Form	-
Yare Valley	-
Connectivity	+
Legibility	?
Landscape	-
Ecology	-
Flood Risk	-

- + Positive effects
- Negative effects
- +/- Mixed effects
- 0 Neutral effects
- ? Uncertain effects (dependent on design)

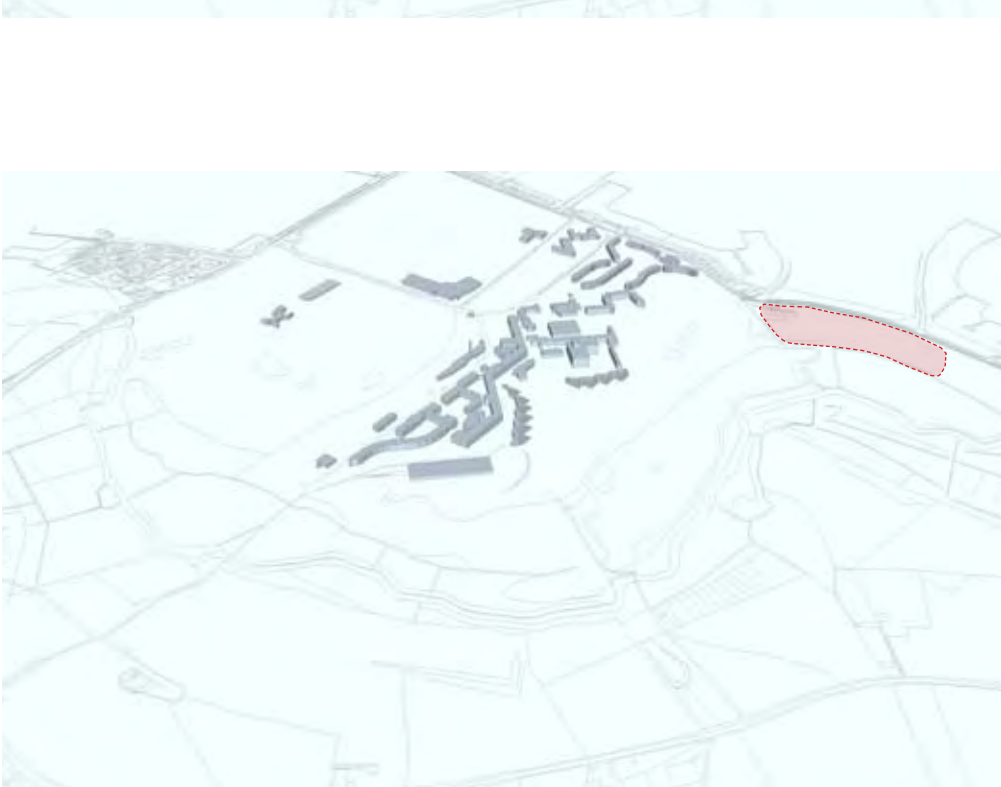
5.11 POTENTIAL LOCATION FOR LANDMARK BUILDING



Factor	
Visual Flow	?
Built Form	?
Yare Valley	?
Connectivity	+
Legibility	?
Landscape	?
Ecology	?
Flood Risk	?

- + Positive effects
- Negative effects
- +/- Mixed effects
- 0 Neutral effects
- ? Uncertain effects (dependent on design)

5.12 STRAWBERRY FIELDS



Factor	
Visual Flow	-
Built Form	0
Yare Valley	-
Connectivity	-
Legibility	?
Landscape	?
Ecology	-
Flood Risk	?

- + Positive effects
- Negative effects
- +/- Mixed effects
- 0 Neutral effects
- ? Uncertain effects (dependent on design)

5.13 RIVER YARE VALLEY



Factor	
Visual Flow	-
Built Form	0
Yare Valley	-
Connectivity	-
Legibility	?
Landscape	-
Ecology	-
Flood Risk	-

- + Positive effects
- Negative effects
- +/- Mixed effects
- 0 Neutral effects
- ? Uncertain effects (dependent on design)

5.14 BLACKDALE PLANTATION



Factor	
Visual Flow	-
Built Form	?
Yare Valley	0/-
Connectivity	+
Legibility	?
Landscape	-
Ecology	-
Flood Risk	?

- + Positive effects
- Negative effects
- +/- Mixed effects
- 0 Neutral effects
- ? Uncertain effects (dependent on design)

5.15 LUSTY HILLS



Factor	
Visual Flow	-
Built Form	0
Yare Valley	-
Connectivity	-
Legibility	?
Landscape	-
Ecology	-
Flood Risk	?

- + Positive effects
- Negative effects
- +/- Mixed effects
- 0 Neutral effects
- ? Uncertain effects (dependent on design)

5.16 THE HERONRY AND VIOLET GROVE



Factor	
Visual Flow	-
Built Form	?
Yare Valley	-
Connectivity	+
Legibility	?
Landscape	-
Ecology	-
Flood Risk	-

- + Positive effects
- Negative effects
- +/- Mixed effects
- 0 Neutral effects
- ? Uncertain effects (dependent on design)



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