
UNIVERSITY OF WARWICK INNOVATION CAMPUS,
STRATFORD-UPON-AVON
FRAMEWORK MASTERPLAN

SUPPLEMENTARY PLANNING DOCUMENT

JULY 2023

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Team



1. Introduction

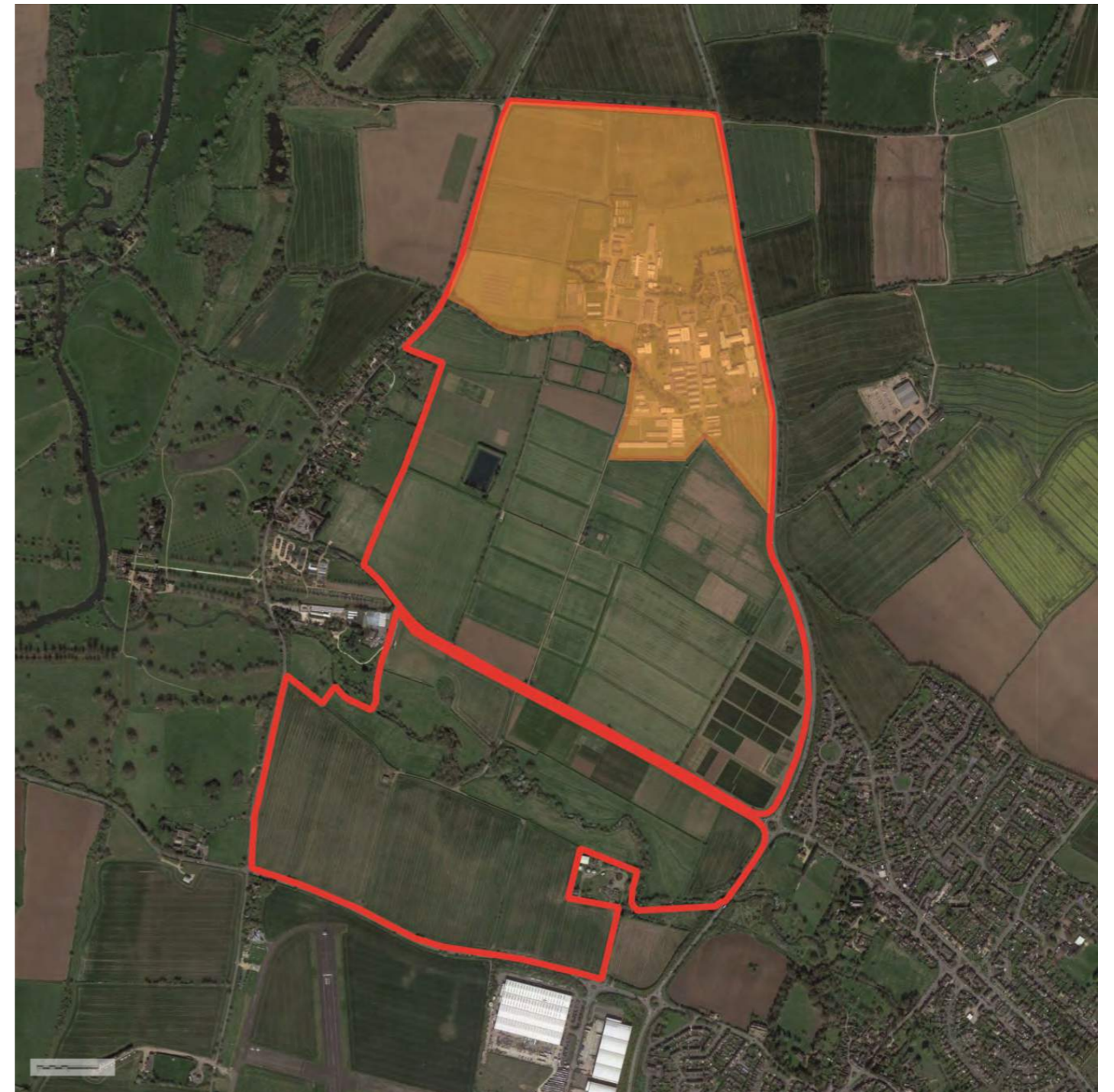
SITE LOCATION AND DESCRIPTION

Wellesbourne Campus

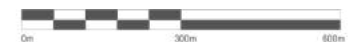
- 1.1 Wellesbourne Campus as a whole comprises an area of approximately 190ha (469.5 acres) of mainly agricultural land largely used for research purposes with a cluster of campus-style buildings adjacent to the A429 concentrated towards the north eastern corner of the area. The built-up area of the Campus comprises approximately 20ha and contains a variety of historic and newer buildings connected by a series of footpaths and roads to facilitate walking and vehicular movements across the campus for existing users.
- 1.2 The A429 bounds the Campus to the east, beyond which lie a number of agricultural fields, which is typical of the rural character of the site. The built-up area of Wellesbourne is situated to the southeast of the site. The Campus shares its south-eastern site boundary with the main rural service centre of the village of Wellesbourne and can be readily accessed by car or by walking and cycling from the village. Wellesbourne offers a range of local amenities and services, including a post office, convenience stores and supermarkets, medical practices and public houses and restaurants.
- 1.3 Immediately south of the Campus is Wellesbourne Mountford Airfield and Wellesbourne Distribution Park, providing a range of commercial, industrial and storage and distribution uses. The village of Charlecote is located to the west of the Campus which contains a number of listed buildings including Charlecote House and associated Registered Park.
- 1.4 The Campus is situated 4 miles to the south of Junction 15 of the M40 motorway, 5 miles south of Warwick (approximately 13 minutes car journey) and 5 miles east of Stratford-upon Avon (17 minutes car journey). The nearest mainline train stations are at Stratford-upon-Avon, Warwick Parkway, Warwick and Leamington Spa.

THE MASTERPLAN SITE

- 1.5 The part of the Campus that is the subject of this Masterplan is shown in the image to the right, shaded in orange and is 47.3ha (116.9 acres) in size. The masterplan site area is primarily located to the north of the water course, including the main built-up portion of the campus but extending to field parcels as far as the existing hedgerow and Public Right of Way to the North and a triangular parcel of land in the south-east. It also includes the existing research greenhouses situated to the south of the watercourse that is linked to the River Avon and flows from East to West, to the North of Charlecote village. The Masterplan area is located within the Parish of Charlecote.



SITE LOCATION MAP



CAMPUS HISTORY

- 1.6 From its foundation in 1965, the University of Warwick has sought to be innovative and outward looking from its core, forming close connections with private enterprise, with this becoming one of the University's hallmarks. The University of Warwick is one of the UK's top ten universities and consistently one of the top 100 in the world, with almost 7,000 staff and accommodating over 29,000 students.
- 1.7 The University plays a significant economic and cultural role in the region. With strong links with local business and enterprise, particularly through Warwick Manufacturing Group (WMG) and Warwick Business School. At the main campus, Warwick Arts Centre provides a range of public events, and the sports facilities host national competitions. The University works closely with local schools and FE Colleges, and delivers a strong public outreach programme. The University has also played an important role in attracting significant new investment to the local area.
- 1.8 The Wellesbourne Campus has a long and esteemed history in bringing together research and industry within an attractive rural location. The Campus has been a Research and Development facility for over 70 years, originally established by the Ministry of Agriculture, Fisheries and Food, latterly the Department of Environment, Food and Rural Affairs. Academic groups from the University's School of Life Sciences applied crop research and WMG's sustainable transport research are based at the Campus, strongly aligned with the research and development foundations of the Stratford-on-Avon economy. The Campus is also home to internationally renowned companies, including Corteva Agriscience, Lotus Cars, and Rimac Automobili, all of which have chosen to locate to Wellesbourne Campus to establish research and development facilities. The University of Warwick vision for the Campus is to provide the opportunity for institutions to locate themselves in an innovation hub that encourages co-creation between academic and industry excellence which aligns with the national, regional and local objectives of sustainable development.

WHAT IS A FRAMEWORK MASTERPLAN?

- 1.9 A Framework Masterplan establishes the high-level design principles that the Council will use to guide development proposals and assess planning applications. Its role is not to set out a detailed design for what the Wellesbourne Campus will look like, but rather to establish the principles that will guide individual development proposals as they come forward. This will ensure that development comes forward in a coordinated manner whereby wider public realm, community, environmental and infrastructure benefits can be delivered.

PLANNING POLICY BACKGROUND

National Policy

- 1.10 At a national level, relevant planning policy and guidance is set out within the National Planning Policy Framework (NPPF) published in July 2021. It sets out the Government's economic, environmental and social planning policies for England and requires the planning system to "play an active role in guiding development towards sustainable solutions, but in doing so should take local circumstances into account, to reflect the character, needs and opportunities of each area".
- 1.11 Achieving sustainable development means that the planning system has three overarching objectives, which are interdependent and need to be pursued in mutually supportive ways:
- A social objective – to support strong, vibrant and healthy communities;
 - An environmental objective – to protect and enhance our natural, built and historic environment, including making effective use of land; and
 - An economic objective – to help build a strong, responsive and competitive economy.

Neighbourhood Development Plan

- 1.12 "Whilst it does not cover the area of the Masterplan and therefore is not part of the Development Plan for the Masterplan area, the Made Wellesbourne and Walton neighbourhood Plan covers the Parish to the South East including some of the wider campus area and has been taken into account when producing this document"

Relationship to Stratford-on-Avon District Core Strategy and South Warwickshire Local Plan

- 1.13 The planning policy context for the Wellesbourne Campus is set by the Stratford-on-Avon District Core Strategy (adopted July 2016). The policies and proposals included within the Core Strategy have been prepared within the context of the NPPF, the overarching aim of which is to achieve sustainable development.
- 1.14 The policy of particular relevance is Policy AS.9 which is an over-arching Area Strategy for Wellesbourne. That policy covers three key themes;
- Environmental;
 - Social; and
 - Economic.
- 1.15 It is under the Economic theme that the specific policy reference to the Campus is included at criterion 6, which states;
- "Support the use of the Horticultural Research International (Warwick University) site for research and development and educational purposes"*

- 1.16 Interpretation of this policy is provided in the supporting text, at Paragraph 6.9.20 which states:
“Just to the north of the village is Horticulture Research International, which is part of the University of Warwick. It is a well-established base for research and teaching in plant and environmental sciences. There is some uncertainty about the future of some of the current uses on the site, with the prospect of certain activities moving to the main University campus. However, it provides a significant opportunity to expand research activities and jobs in the District in an accessible and attractive location.”
- 1.17 This masterplan has therefore been produced in the context of Policy AS.9 of the Core Strategy.
- 1.18 In January 2021 the Council commenced a review of its Core Strategy, working with Warwick District Council to prepare a new Local Plan for South Warwickshire. Part 1 of the Plan is expected to replace the strategic policies of the existing Stratford-on-Avon Core Strategy and Warwick District Local Plan, which have plan periods that run to 2031 and 2029, respectively. The South Warwickshire Local Plan will set out a long-term spatial strategy for housing, jobs, infrastructure and climate change for both Districts up to 2050.
- 1.19 In addition to the South Warwickshire Local Plan, Stratford-on-Avon District Council is also in the process of preparing a Site Allocations Plan (SAP), the purpose of which is to guide where, how and when specific forms of development proposals will be implemented. The emerging SAP underwent a preferred options consultation in June and July 2022. Proposal RURAL.2 (University of Warwick Campus, near Wellesbourne) sets out the Council’s expectations of the broad requirements for development coming forward at the Campus site between 2021/22 and 2030/31. Whilst the masterplan is coming forward in the context of Policy AS.9 of the Core Strategy, it is important to acknowledge that the SAP is progressing and once adopted (anticipated in 2025) will also form part of the suite of documents that development proposals will need to respond to at Wellesbourne Campus.
- 1.20 This masterplan will sit alongside the Council’s Development Plan, in particular the Core Strategy and subsequently the South Warwickshire Local Plan and the SAP once they are adopted, providing additional policy guidance to help shape development proposals at Wellesbourne Campus
- 1.21 In July 2019, Stratford-on-Avon District Council declared a ‘Climate Emergency’ with Councillors pledging to take local action to contribute to national carbon neutral targets through the development of practices and policies, with an aim to become net-zero carbon as an organisation by 2025, and by 2030 the Council is seeking to reduce the total emissions in Stratford-on-Avon District as a whole by at least 55% as a stepping stone to becoming a net zero District. The development of Wellesbourne Campus will be designed to adhere to the Council’s net zero carbon objectives.”
- 1.22 Stratford-on-Avon District Council and Warwick District Council are currently in the process of preparing a joint Economic Strategy for South Warwickshire. This will present a five-year strategy for the South Warwickshire

economy. The two Councils, inspired by the range of common ground opportunities and challenges they face, have worked together to draw up a common vision with ambitious plans and actions to deliver this South Warwickshire Economic Strategy by 2028. The main objective of this strategy is to co-ordinate economic growth activities across South Warwickshire and highlight South Warwickshire’s significance and contribution to the wider regional and national growth plans. The Economic Strategy will look to provide a balance between innovation, job creation and economic growth.

Regional/Sub-regional Context

- 1.23 The Coventry and Warwickshire sub-region within the West Midlands acts as a global hub for knowledge-based industries, leading the way in advanced manufacturing and engineering and digital sectors. Innovation plays a critical part in growth and productivity, whether through addressing the demand from industry for improved products and services or creating new companies through the commercialisation of technology.
- 1.24 In this context, the University of Warwick is expected to play a key role in supporting many of the regional networks which transforms knowledge to business. The following publications provide important context for the region’s economic strengths and aspirations for growth:
- Coventry and Warwickshire LEP Strategic Economic Plan (2016);
 - Local Industrial and Economic Development Strategy (2018);
 - West Midlands Local Industrial Strategy (May 2019); and
 - West Midlands Combined Authority Plan for Growth (July 2022)
- 1.25 It is recognised within the Local Industrial and Economic Strategy that innovation *“plays a critical part in growth and productivity, whether through addressing the demand from industry for improved products and services or creating new companies through the commercialisation of technology”*. In this context the University plays a key role in both and supports many of the regional networks which transforms knowledge to business. In particular the development of the Wellesbourne Campus and the provision of jobs in agricultural technology, advanced engineering, digital and medical sectors presents a significant opportunity to enhance this offer. This will be enabled both through the potential for further growth of existing businesses that operate in these sectors and the attraction of new businesses within these sectors who will be able to utilise additional space at Wellesbourne Campus. This will assist in strengthening the economic baseline of Stratford-on-Avon District, South Warwickshire and the wider region.
- 1.26 In summary, the opportunity to expand Research and Development and associated activities will help contribute to each of the strategies key aims, including;
- Aim 1: The Best Place to Start and Grow a Business
 - Aim 2: Prosperous Communities and Infrastructure Upgrade

- Aim 3: Good jobs and Greater Earning power

1.27 The job creation that will be provided as part of campus growth will have further economic benefits to the local economy by helping the local area to attract highly skilled employees and retain existing graduates. The significant inward investment and job creation will also help to diversify the local economy and assist with its recovery from the effects of the Covid-19 pandemic.

PURPOSE OF THIS MASTERPLAN

- 1.28 This masterplan takes forward Policy AS.9 of the Core Strategy which recognises the importance of the Wellesbourne Campus as a site for research and development (Use Class E(g)(ii)) and educational purposes (Use Class F1(a)). It therefore provides more detail on the design principles and sets out a Masterplan to guide how development of the Campus will come forward. The document bridges the gap between the planning policies and proposals that are set out in the Core Strategy and the detail that would be contained within individual planning applications. This will help the University fulfil its and the Council's ambitions for the Campus in a coordinated manner, consistent with the Development Plan.
- 1.29 The purpose of the masterplan is to contribute to achieving the aims of Policy AS.9 of the Core Strategy. In addition, the masterplan would contribute to achieving the aims of Proposal RURAL.2 of the emerging SAP. The masterplan aims to:
- Demonstrate the Council's commitment to the delivery of a sustainable new economic and innovation hub at Wellesbourne Campus;
 - Increase stakeholder and investor confidence in the Campus;
 - Set the framework for future development that provides sufficient capacity for research and innovation which is of a scale and form that is appropriate in the context of the wider area's rural and historic character;
 - Be founded on sustainable design principles and with a focus on health and well-being and green infrastructure;
 - Deliver fully on the infrastructure requirements with commercial enabling development so that the University can be at the forefront of sustainable construction and research methods;
 - Improve links between the Campus, Wellesbourne and Charlecote villages and the surrounding rural locality; and
 - Facilitate the creation of an attractive and socially cohesive community between academia and private enterprise.
- 1.30 Because the site comprises numerous stakeholders, the masterplan will help ensure the coordinated delivery of a series of developments that will together create a new high-quality innovation campus supporting priority research and development. The masterplan will be used as a material planning consideration in the determination of planning applications for development within the Wellesbourne Campus.

- 1.31 The masterplan sets out:
- A vision and objectives for future development of the Wellesbourne Campus;
 - A masterplan and key design principles;
 - A framework for delivering the associated infrastructure that will be required to support the future of the site.
- 1.32 The masterplan does not:
- Provide a prescriptive Plan of what the area will look like; or
 - Provide new policies but rather it builds on those already contained in the Core Strategy and emerging Site Allocations Plan.

WORKING WITH THE COMMUNITY AND STAKEHOLDERS

- 1.33 An important aspect of the preparation of the Framework Masterplan is the consultation that has taken place with the local community and other key stakeholders. This is summarised below;
- Internal workshops with existing occupiers that operate within the existing campus community
 - 2 stakeholder workshops with a range of statutory consultees including those covering infrastructure and local parish councils and District Councillors representing local Wards

WORKING WITH THE UNIVERSITY OF WARWICK AND BUSINESSES LOCATED ON CAMPUS

- 1.34 Policy AS.9 of the Core Strategy supports the enhancement and expansion of the Wellesbourne Campus for research and development and educational purposes. The Council is also preparing the SAP, which includes draft Proposal RURAL.2 (University of Warwick Campus, near Wellesbourne). The draft Proposal sets out the Council's expectations of the broad requirements for development coming forward at the Campus site up until 2031.
- 1.35 An important aspect of the delivery of the Masterplan will be the communication with businesses that operate from the Campus to help manage any potential relocation that may take place, particularly to ensure operational capacity remains unaffected. In order to ensure a smooth transition as development takes place, clear communication between the relevant stakeholders will therefore be integral to the process. To assist with delivery, Stratford-on-Avon District Council and the University will explore setting up a working group to meet regularly with businesses and local stakeholders in order to keep them informed on the proposals and progress of the project.

OTHER TECHNICAL EVIDENCE

- 1.36 The masterplan draws on a wide range of technical expertise from independent experts on behalf of the University and Stratford-on-Avon District Council, including in the following disciplines:
- Heritage and Archaeology;
 - Geology;
 - Sustainable Drainage;
 - Ecology;
 - Landscape;
 - Highways;
 - Utilities; and
 - Economy.
- 1.37 The findings of these technical outputs are summarised in the contextual analysis in chapter 2. The specific documents produced to support the development of the SPD are;
- Ecology Briefing Note (The Environment Partnership)
 - Historic Environment Desk-Assessment (Cotswold Archaeology)
 - Wellesbourne SPD Modelling Protocol Note (Steer)

STRATEGIC ENVIRONMENTAL ASSESSMENT

- 1.38 National Planning Practice Guidance ⁽¹⁾ confirms that there is no requirement for Supplementary Planning Documents to be subject to Sustainability Appraisal but they may, in exceptional circumstances, require a strategic environmental assessment if they are likely to have significant environmental effects that have already been assessed during the preparation of the relevant strategic policies.
- 1.39 The SA for the Core Strategy examined the social, environmental and economic impacts of the Plan and where adverse impacts were identified mitigation measures are suggested. With regards to Policy AS.9, the SA draws the following relevant conclusions:
- It highlights the existing reliance on private vehicles by residents of the village, due to the lack of local employment opportunities. The SA identifies that increasing job opportunities in the area could help reduce out-of-village commuting and provide less dependence on the two local employment sources. Wellesbourne needs a strong emphasis on local job provision to overcome some of the potentially adverse outcomes associated with the dominance of cars and the transport network.
 - The new pedestrian and cycling links would provide good local opportunities to travel sustainably and would also benefit health through open air recreation by linking up with Charlecote Park and Compton Verney.
- 1.40 In order to take into account the criteria specific in schedule 1 to the Environmental Assessment of Plans and Programmes Regulations 2004, Lepus were appointed to undertake a screening assessment of the masterplan and consulted with the relevant statutory bodies, including Natural England, Historic England and the Environment Agency. The conclusion of the SEA screening assessment was that the Wellesbourne Innovation Campus Framework Masterplan SPD was not likely to have a significant environmental impact on the surrounding area and would therefore not require an Strategic Environmental Assessment. The SEA screening report has subsequently been subject to consultation with Natural England, Environment Agency and Historic England, none of whom disagreed with the conclusion of the report.”

⁽¹⁾ NATIONAL PLANNING PRACTICE GUIDANCE, PARAGRAPH 008 REFERENCE ID 11-008-20140306
[HTTPS://WWW.GOV.UK/GUIDANCE/STRATEGIC-ENVIRONMENTAL-ASSESSMENT-AND-SUSTAINABILITY-APPRAISAL](https://www.gov.uk/guidance/strategic-environmental-assessment-and-sustainability-appraisal)

2. Context

2.1 This section sets out the context for the masterplan.

SITUATION

2.2 The Wellesbourne Campus is situated within the cultural heart of the West Midlands, close to the historic town of Stratford-On-Avon. The Wellesbourne Campus is located to the north west of the village of Wellesbourne, which is classified as a Main Rural Centre in the District Council's Core Strategy. The village of Wellesbourne offers a range of local amenities and services, including, a post office, convenience stores and supermarkets, medical practices and public houses and restaurants.

2.3 The A429 bounds the Campus to the east, beyond which lie a number of agricultural fields, which is typical of the rural character of the area. Immediately south of the area is Wellesbourne Mountford Airfield and Wellesbourne Distribution Park, providing a range of commercial, industrial and storage and distribution uses. The village of Charlecote is located to the west of the Campus which contains a number of Grade II listed buildings and the grounds of Charlecote Park, a National Trust estate. The Churchover to Wormington gas pipeline runs through the southern part of the wider campus site.

2.4 The image to the right sets out the context to the Campus. Specific features of the campus and the wider area are set out within this section.

KEY

- 1 Wellesbourne Campus (masterplan area)
- 2 Charlecote Village
- 3 Charlecote House and Registered Park
- 4 Hampton Lucy Village
- 5 Wellesbourne Mountford Airfield
- 6 Wellesbourne Distribution Park
- 7 Wellesbourne Village



CONTEXTUAL MAP



1 CHARLECOTE NORTH WEST APPROACH TO SITE



2 CHARLECOTE BROOK ENTRANCE TO SITE



3 CURRENT HISTORIC BARN COURTYARD



4 MAIN STREET WITHIN THE WELLESBOURNE CAMPUS



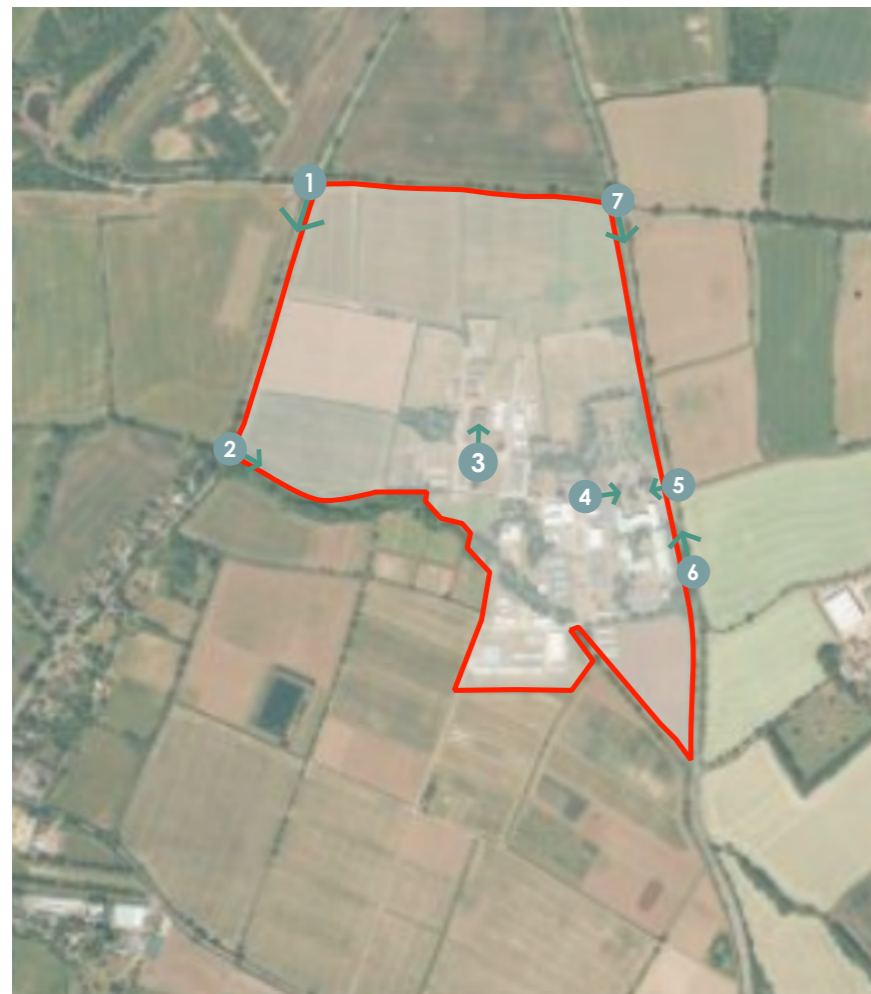
5 A429 MAIN ENTRANCE TO SITE



6 A429 SOUTH APPROACH TO SITE



7 A429 NORTH-EAST SITE APPROACH WITH FOOTPATH



CONTEXTUAL MAP DISPLAYING PHOTOGRAPH LOCATION AND DIRECTION



ACCESSIBILITY

Local Highway Network

- 2.5 The Campus is situated 4 miles to the south of Junction 15 of the M40 motorway (also known as Longbridge Interchange), 7 miles south of Warwick (approximately 13 minutes car journey) and 5 miles east of Stratford-upon Avon (17 minutes car journey).
- 2.6 The main vehicular access to the Campus is taken from the A429 to the east which runs roughly north to south passing through Wellesbourne to the south and to the north to the Longbridge Interchange. Adjacent to the Campus, the A429 is a single carriageway road which forms an important route linking Warwick with Wellesbourne, Moreton-in-Marsh, Stow-on-the-Wold and Cirencester.
- 2.7 To the west of the Campus, Birmingham Road is a minor road which connects with the B4086 Stratford Road to the south and the A429 to the north and runs through Charlecote village.
- 2.8 To the south of the land the subject of this SPD, but dissecting the wider campus, is Charlecote Road. Further south, just beyond the southern boundary of the campus is Stratford Road, which provide an important connection between Wellesbourne and Stratford town. Charlecote Road is a relatively minor road primarily for local traffic.
- 2.9 In general, the roads discussed above have grassed highway verges and hedgerows with no or very limited pedestrian facilities.
- 2.10 The Campus buildings themselves are currently accessed from a network of internal roads with the primary access from the A429, discussed further below.

Strategic Highway Network

- 2.11 The M40 and its junctions are managed by National Highways (NH) (formerly Highways England).
- 2.12 The M40 Longbridge Interchange Junction 15 is situated 5km to the north of the Site whilst Junction 13 is situated 4km to the north-east. Junction 15 forms a highly strategic junction on the M40 where it meets the A46 and the A429 south of Warwick.
- 2.13 Junction 14 of the M40 (southbound) provides access to the A452 for Leamington. Junction 13 provides a northbound off-slip and southbound on-slip only but does form a relatively attractive alternate route to the Site from the M40 for drivers travelling to/from the south.

Campus Vehicular Access

- 2.14 The main vehicular access to the Campus is from the A429 which is formed by a large priority T-junction. The access is wide to facilitate movement of large vehicles and provide two exit lanes for vehicles exiting the Campus. There is a right-turn ghost island on the A429 which provides capacity for around nine cars to enter the Campus.
- 2.15 There is a gated vehicular access, West Gate, which connects the Campus buildings to Birmingham Road along a track. This is used by agricultural vehicles, pedestrians and cyclists.
- 2.16 There is a private north-south road that runs through the Campus from Charlecote Road north to the main Campus buildings. This is referred to by the University as the Spine Road. Access to this road is restricted to agricultural vehicles only and controlled using a key/fob operated system.
- 2.17 The largest vehicles which regularly access buildings across the Campus are low-loaders transporting cars, large agricultural vehicles with trailers and delivery vehicles such as liquid nitrogen trucks.

Car Parking











- 2.18 There are 159 parking spaces within the Campus that are available for University staff, postgraduate students, business occupiers, residents and visitors.
- 2.19 Parking spaces are allocated to larger occupiers, University staff and for general shared use (unrestricted). There are designated visitor spaces at the reception and for University visitors within the staff car park.

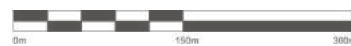
Cycling Network

- 2.20 Route 41 of the National Cycle Network runs along Charlecote Road and Loxley Lane to the west and south-west of the Site. At Charlecote, the route heads west towards Hampton Lucy. The route connects Stratford-upon-Avon with Longbridge and Warwick via Loxley along a relatively indirect alignment using predominantly quieter roads.
- 2.21 Cyclists from the Campus can access Route 41 through the West Gate entrance onto Birmingham Road, although the route is currently along a dirt track and so would not always be suitable for all types of cycles, particularly in winter months (e.g. when the track is muddy).
- 2.22 The main access via the A429 does not provide an attractive route for cyclists as it is a relatively high speed and high traffic road. Cyclists could use the shared footway along the A429 which connects to Wellesbourne, but this is narrow and not separated from the carriageway by verge so is not an attractive option for all cyclists.

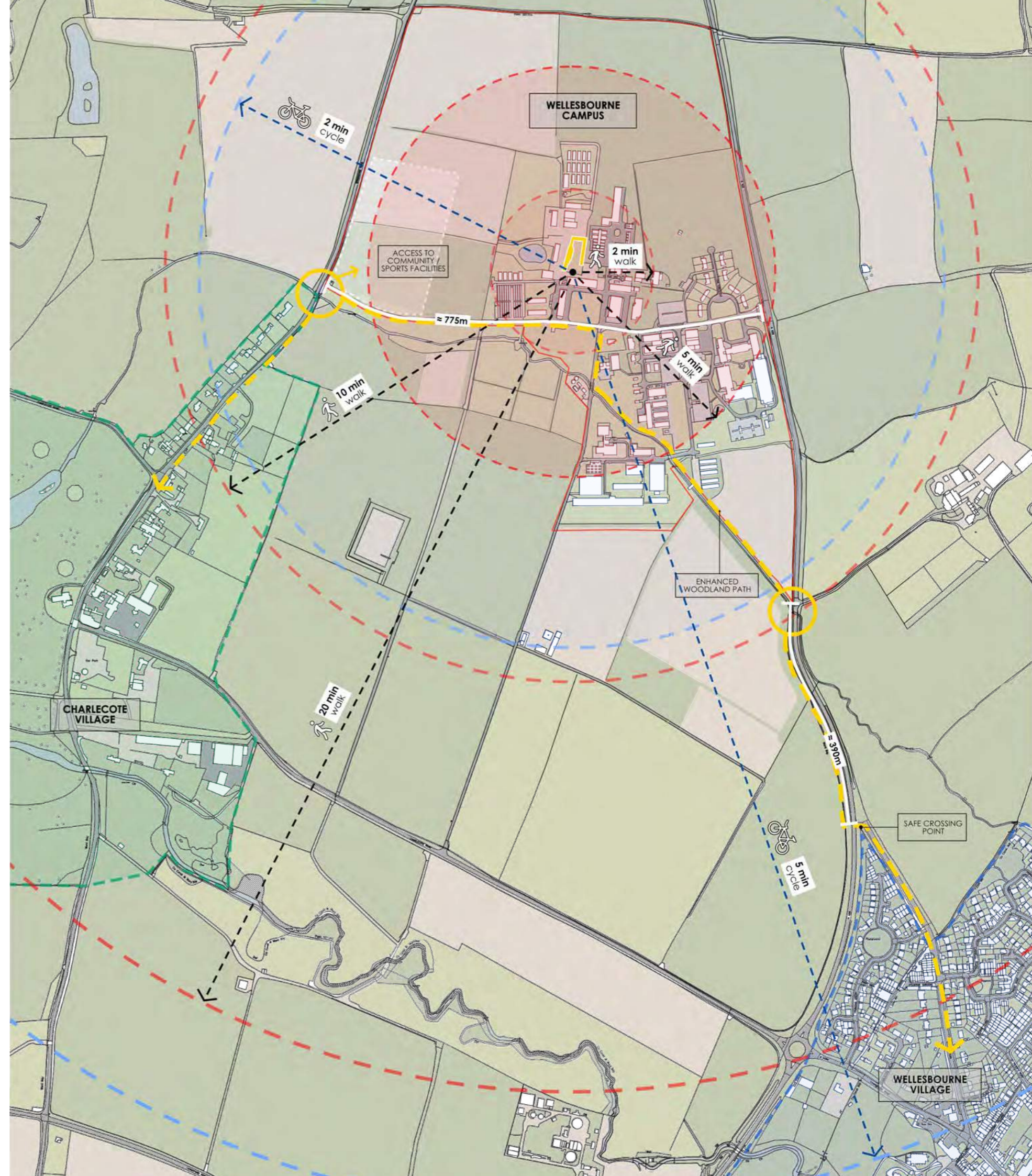
Pedestrian Access

- 2.23 There is a footway along A429 south from the Campus to Wellesbourne, with an uncontrolled crossing of the A429 just to the north of dwellings fronting Hammond Green. The route then continues into the village centre

- KEY**
-  Walking Distance
 -  Cycling Distance
 -  Walking Distance Time
 -  Cycling Distance Time
 -  Key Central Area
 -  Site Boundary
 -  Enhanced Woodland Path and Cycle Route
 -  Route with Distance Measured
 -  Charlecote Boundary
 -  Wellesbourne Boundary



CAMPUS WITH A HUMAN SCALE - MAP ILLUSTRATING CYCLING AND WALKING DISTANCES ON CAMPUS AND SURROUNDINGS



off-carriageway for a short stretch before joining the carriageway of Warwick Road. Along the A429, the footway is very narrow and directly abuts the carriageway with no separation by verge.

- 2.24 West Gate is gated but can be opened and closed by pedestrians and dismounted cyclists. From West Gate along Birmingham Road there is an informal footpath into the village of Charlecote.
- 2.25 Public Right of Way (PRoW) SD131a forms the northern boundary of the masterplan site, running east-west between the A429 and Birmingham Road.

Public Transport - Bus

- 2.26 Bus stops are located on Birmingham Road, adjacent to the West Gate, which are served by Stagecoach service 15 between Warwick and Stratford via Wellesbourne and Charlecote. This service operates every hour Monday to Saturday and every two hours on Sundays, although the service operates between Wellesbourne and Stratford (not via Charlecote) every 30 minutes.
- 2.27 There are northbound and southbound bus stops on the A429 directly adjacent to the main access. However, no buses currently operate along the A429 in this location.
- 2.28 Stagecoach also operates service 77 between Leamington and Stratford-upon-Avon via Jaguar Land Rover Gaydon every two hours on weekdays. The nearest bus stop is in Wellesbourne, opposite Grange Gardens on Ettington Road.
- 2.29 The University, in partnership with Transport for West Midlands, launched the 'West Midlands Bus On Demand' in 2021 which is a demand responsive transport (DRT) service. Passengers book their pick up and drop off locations via an app, either in advance or when required, and are matched with other passengers heading in the same direction. The service operates in across the University's Main Campus, Kenilworth, Warwick Parkway, Coventry, Leamington Spa and the Wellesbourne Campus. Journeys to/from Wellesbourne Campus cost £4-6 depending on the origin/destination and the service operates weekdays between 07:00 and 20:00.

Public Transport - Rail

- 2.30 There is no direct rail travel to the Campus but the nearest stations of Warwick, Warwick Parkway, Leamington Spa and Stratford-upon-Avon are all less than 10km away as the crow flies. The main destinations accessible from these stations include London Marylebone, Birmingham, Worcester and Solihull.

THE HISTORIC ENVIRONMENT

- 2.31 A 'desk-based historic environment assessment' for the site has been carried out, which has included data sources such as the Warwickshire historic environment record, research of archaeological and historical sources, and inspection of the Site by Cotswold Archaeology. This level of research is suitable to inform consideration of key heritage constraints and opportunities for the Site. The masterplan site area lies within a wider historic environment reflecting occupation and use from the prehistoric, Roman, medieval and more recent periods. It is thus important that future development is cognisant of the historic character of the area, in order to ensure suitably informed design: an approach consistent with the heritage best-practice objective of 'maximising heritage enhancement, and minimising heritage harm'.

Charlecote and Hampton Lucy Conservation Area and Wellesbourne Conservation Area (designated heritage assets)

- 2.32 Charlecote and Hampton Lucy Conservation Area is located to the west of the Wellesbourne Campus, and two miles north west of Wellesbourne. The Conservation Area has three distinct parts – the historic Charlecote house and associated Registered Park; the estate village of Charlecote; and the historic part of village of Hampton Lucy centred around St.Peter's Church. Since the Conservation Area includes the parkland associated with Charlecote house and elements of surrounding villages, it covers a large area, however it has relatively few buildings. Although the three distinct parts of the Conservation Area are intrinsically linked in history, the three parts are architecturally quite different.
- 2.33 The Campus adjoins that part of the Conservation Area which includes properties within Charlecote village along the Birmingham Road. A very small part of the campus is located within the Northern tip of the Conservation Area, where it adjoins the track-way which leads into the site along the brook at the West Gate. A number of Grade II listed buildings are located within the Conservation Area along Birmingham Road, although the nearest is some 280m to the south of the site covered by the SPD.
- 2.34 The Church of St Leonard is Grade I listed, and lies approximately 670m south-west of the site, adjacent to the Birmingham Road and just north of the main park entrance. The church was rebuilt by John Gibson in 1851-3, and includes a number of Grade II listed headstones in its graveyard.
- 2.35 A Review of the Conservation Area was produced on behalf of Stratford-on-Avon District Council by Alan Smith and Partners in the mid 1990s, and is provided on the Council's website with regard to Conservation Areas. The Review included a summary of the historic background of the settlements of Charlecote and Hampton Lucy; key characteristics of the settlements today; and a summary of key landscape features. A key conclusion of the Review was a recommendation for an extension to the boundaries of the Conservation Area in a number of places, including Charlecote Park and its former nurseries, and additional land to the rear of Charlecote Pheasant (east of Birmingham Road). These areas were subsequently added to the Conservation Area by the Council, and are included within the present Conservation Area boundary (as illustrated on Fig. 2).

- 2.36 Wellesbourne Conservation Area lies some 940m south-east of the site area at its closest point. The designated Conservation Area includes numerous historic listed buildings at the heart of the village, with later 20th-century residential development on the northern side of the settlement (east of the A429).

Charlecote Park (Grade II* Registered Park and associated Grade I, II* and II listed buildings) (designated heritage assets)

- 2.37 Registered Parks and Gardens and Listed buildings comprise 'designated heritage assets'.
- 2.38 The Grade II* Registered Park of Charlecote Park and Gardens occupies much of the Conservation Area, but lies wholly outside of the masterplan site area. The house and grounds have been administered by the National Trust since 1946 and are open to the public. Charlecote House itself originated in the 16th century, although it was the subject of notable extension and rebuild in the early and mid-19th century. The house is Grade I listed, and lies in the centre of the park alongside a range of associated park buildings of Grade I, II* and II listed status. Prior to the mid-18th century the park included complex of formal gardens to the north of the house, which were removed in widespread remodelling of the park by Lancelot 'Capability' Brown in the later 18th century. The lake on this north-east side of the park was likely re-modelled by Brown from a series of earlier smaller lakes (which are illustrated on early maps of the area). The main carriage drive entrance to the house is from the east entrance on the Birmingham Road, which is some 840m south-west of the masterplan site.

Scheduled Monuments (designated heritage assets)

- 2.39 There are two Scheduled Monuments located within the grounds of Wellesbourne Campus, although these both fall outside of the masterplan site area. These comprise:
- Cursus and bowl barrow, which lies approximately 290m to the south-west of the masterplan site at its closest point. Cursus monuments are of Neolithic date, whilst bowl barrows are broadly of late Neolithic to late Bronze Age date
 - A complex of later Iron Age and Romano-British occupation features lies further to the south, from around 880m south of the masterplan site.
- 2.40 The remains of the medieval Thelsford Priory comprise two adjacent Scheduled Monuments approximately 680m to the north of the masterplan site area. Hiorn's Bridge, which takes the Birmingham Road over the River Dene (south of the eastern park entrance to Charlecote House), is also a Scheduled Monument, as well as a Grade II listed building.

Listed buildings (designated heritage assets)

- 2.41 The great majority of listed buildings in the wider environs of the masterplan site are included within the Charlecote and Hampton Lucy and Wellesbourne Conservation Areas discussed above. No listed buildings, of any grades, lie within the masterplan site, or immediately adjacent to it. One further group of Grade II listed buildings is situated at Thelsford Farm, approximately 650m north-east of the masterplan site. These include the farmhouse itself, and three additional outbuildings. Sandbarn Farmhouse is a further Grade II listed farmhouse, approximately 1.5km west of the masterplan site.

The historic landscape and 19th-century structures (potential non-designated heritage assets)

- 2.42 Documentary sources from the mid-19th century illustrate that the masterplan site comprised regular enclosed agricultural fields from at least this date. Several hedgerows bordering and within the masterplan site are illustrated on the Charlecote Parish Tithe map of 1848, and are likely to comprise 'important' hedgerows under the criteria for archaeology and history of the Hedgerows Regulations 1997. The historic landscape type itself, comprising regular enclosure following the medieval period, is well-represented in the region, but does not comprise a 'non-designated heritage asset' in and of itself.
- 2.43 A barn range is illustrated on the location of the current barn range on the north-west side of the campus buildings on the Charlecote Tithe map of 1848. This may represent the western side of the existing courtyard arrangement, which is shown in its broad current form on the 1886 Ordnance Survey map (although the barn may potentially have been rebuilt). The existing pond on the western side of the range is also illustrated on the 1848 map. The barn range is not listed, and Stratford-on-Avon does not have a 'local list' of buildings. However, the barn range can be considered to have sufficient heritage interest to comprise a 'non-designated heritage asset'.
- 2.44 A cottage at the site of the sewage pumping station is of later date, and appears to be that which was constructed in the later 19th century, and first illustrated on the 1886 Ordnance Survey associated with a probable pump. The building comprises a single-storey cottage with upper attic rooms. It is built of red brick, with shallow arch-headed windows, hooded window moulds and decorated barge boards. The cottage has been modified in the post-war period, with the construction of an extension and new door entrance, and new window insertions (without arches, and with concealed lintels). On balance, it is considered that the building is of sufficient heritage significance to comprise a 'non-designated heritage asset', but of low heritage value (and more limited architectural and historic interest than the barn range).

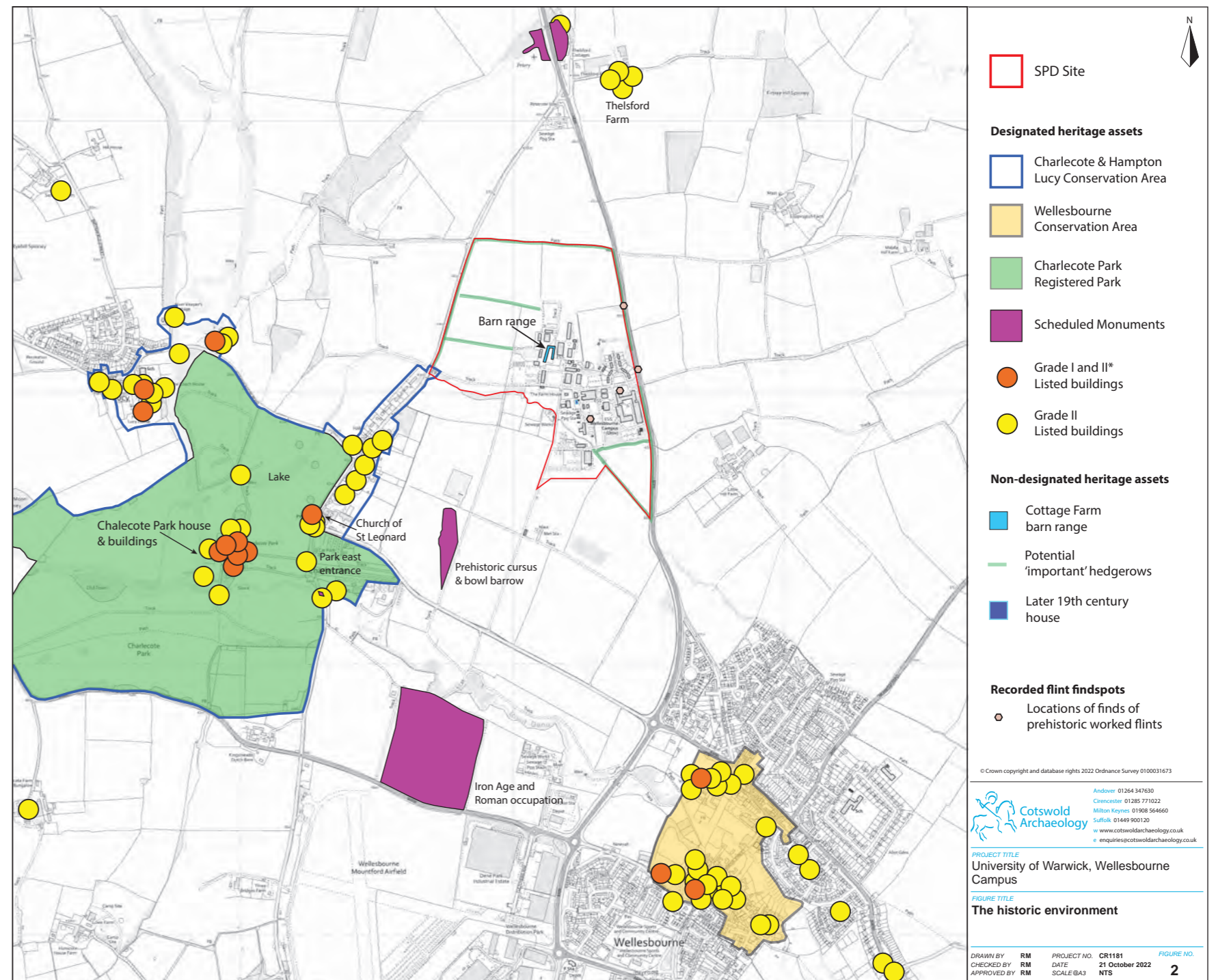
2.45 The building known as The Farmhouse, which lies a short distance to the north-west of the cottage, is of later, 20th-century date and is not of sufficient heritage interest to comprise a heritage asset. Similarly, the various buildings which have developed across the campus in the post-war period are not considered to display particular architectural or historical interests as to comprise non-designated heritage assets.

Archaeological remains

2.46 The superficial Quaternary geology of the Site comprises second terrace river deposits of sands and gravels. A Palaeolithic handaxe is recorded on the Warwickshire historic environment record as being found in the area of the campus in 1950. A small number of worked flints was also found in the 1990s during works for new glasshouses on the campus, but no archaeological features were associated. Two findspots of worked flints were also recorded on the eastern edge of the Site, along the course of the Thelsford to Wellesbourne watermain in the 1990s. These findspots are illustrated on the figure to the right. Given the proximity of known prehistoric and Roman settlement and funerary sites recorded in the area, there is a potential for currently unrecorded below-ground archaeological remains in the Site. There is no evidence for the presence of any remains of the highest heritage significance, such as would require preservation in situ, and preclude or notably constrain development: subject to appropriate further archaeological survey works, mitigation and management.

Further heritage requirements

2.47 As noted above, 'desk-based assessment' has informed considerations for the Site's 'capacity for change', and heritage constraints and opportunities, as summarised above. In accordance with heritage best-practice, additional heritage surveys are likely to be required to inform future decision-making and subsequent requirements, and may include archaeological survey/investigation, and historic building recording.



THE HISTORIC ENVIRONMENT

WELLESBOURNE AIRFIELD

- 2.48 Wellesbourne Mountford Airfield is located to the south of the Campus and to the west of Wellesbourne Village. The airfield was created in the 2nd World War and was formerly the Royal Air Force station RAF Wellesbourne Mountford. Today the airfield has a licence that allows flights for the public transport of passengers and for flying instruction as authorised by the licensee. There are also some tourism-related businesses at the airfield including a small museum and cafe
- 2.49 The airfield hosts an outdoor market each Saturday and Bank Holiday Monday, and sells a vast array of clothing, food and other goods. The airfield site also accommodates a number of relatively large-scale commercial premises at Wellesbourne Distribution Park which are predominantly used for storage and distribution purposes.

LANDSCAPE

- 2.50 The Wellesbourne Campus site is presently occupied by an ad hoc collection of buildings. These are grouped together on the north eastern part of the site, immediately adjacent to the eastern boundary with the A429 and accessed directly from the road. A permissive footpath route also crosses the southern part of the site linking Wellesbourne with Charlecote.
- 2.51 The buildings are of varying sizes, scales and densities, but are generally of a low density and between one and two-storeys high, but with some 3-4 storey buildings adjacent to the A429 frontage. They are linked by an internal road, which is also a public byway, together with car parking and other areas of hardstanding. There is also a generous provision of green open spaces separating these buildings incorporating individual and groups of mature trees as well as tall hedges which provide a relatively high degree of containment. The open space provision present on the Campus includes an area of playing pitches on the northern edge of a cluster of residential dwellings for staff and families. The playing pitches are available to users of the Wellesbourne Campus and sports teams associated with Wellesbourne Village.



WELLESBOURNE CAMPUS BUILDINGS



CAMPUS BUILDINGS AND NORTHERN EXTENT OF MASTERPLAN AREA

- 2.52 Building styles, ages and materials vary considerably but the majority are of modern appearance and are a mixture of pre-fabricated structures clad in light coloured materials and more traditional office type buildings mainly built from brick. Beyond this concentration of buildings the remainder of the site is, in planning terms, in agricultural use which forms part of the University's commitment to agri-tech and biodiversity research. It is laid out in a strong geometric pattern of small to medium-sized fields, but with further sub-division in many fields, as seen in the figures above. A grid pattern of tracks provides access to these fields which are predominantly used to grow crops with pasture uses restricted to a more irregular and linear pattern of fields adjoining of the River Dene to the south which is used for grazing.
- 2.53 The site does not lie within a designated landscape, with the nearest Special Landscape Area (SLA), a non-statutory designation of local importance, located approximately 1.5km to the northwest of the campus where it corresponds with an area of low hills that adjoin the River Avon.
- 2.54 The existing low-lying landform of the area combined with the pattern of intervening vegetation has a considerable limiting effect on views towards the site. Some visibility of existing buildings on the site is gained from the A429 and from public footpaths that cross higher ground to the east at distances of approximately 1km. More limited and distant visibility of existing buildings on the site is also gained from Shakespeare's Avon Way which follows higher ground immediately west of the River Avon.

GEOLOGY

- 2.55 A review of the underlying geology of the Wellesbourne Campus has been undertaken to identify the existing ground conditions for the Site and its capacity to accommodate additional development without prejudicing the existing ground conditions environment.
- 2.56 The overall risk from land contamination at the site is considered to be low for the current extent of development on the site, as it is predominantly covered by hard standing or buildings (the existing Campus area) limiting the possibility of contact with the soils. It also reduces the risk of significant rainwater infiltration leading to leaching due to the current land use of this area of the Campus.
- 2.57 A range of geological assets have been identified with approximately 2-4m of rounded gravel deposits across the majority of the Site beneath the existing top soil. Investigations have identified the presence of a historic gravel pit under playing fields just north of the existing campus which has since been infilled in 1972, although further investigations are required to establish the exact material used to backfill. The site is a Mineral safeguarding area

ECOLOGY AND HABITATS

- 2.58 Detailed surveys of the arboricultural and ecological assets within the Campus have been undertaken with the identified assets shown in the *Ecological Constraints Plan*. The site features agricultural fields to the North and South East. Other habitats present within the site include semi-improved grassland, waterbodies, watercourses, hedgerows, woodland, tall ruderal vegetation, bare ground and scattered trees. The buildings present within the campus have associated areas of hard-standing, amenity grassland and introduced shrub.

Fauna and Protected Species

Amphibians

- 2.59 The pond within the masterplan area is known to support great crested newts (GCN). Other, more common amphibians are also likely present. There are a range of waterbodies in the surrounding area which provide suitable breeding habitat for amphibians. Much of the masterplan area also provides suitable terrestrial habitat for amphibians. Therefore, amphibians including GCN are likely present throughout the masterplan area and the wider site.

Badger

- 2.60 During the Extended Phase 1 habitat survey five badger setts were recorded. These were all outside of the masterplan area, but within the wider site. However, as a comprehensive targeted badger survey has not yet been undertaken it is possible that active badger setts may be present in the masterplan area. The arable, woodland and hedgerows provide extensive suitable badger habitat.

Bats

- 2.61 Numerous buildings are present within the masterplan area which provide suitable roosting habitat for bats. A detailed assessment of the suitability of trees for roosting bats has not yet been undertaken, but it is likely that trees with bat roosting suitability are also present within the masterplan area.
- 2.62 There is extensive foraging and commuting habitat for bats, including woodlands, hedgerows, ponds, scattered trees and watercourses. Overall, the masterplan area has moderate suitability to support foraging and commuting bats.

Birds

- 2.63 There is extensive suitable habitat within the masterplan area for both breeding birds and wintering birds. This includes the arable fields, hedgerows, woodland and scrub.
- 2.64 Additionally, there are two locally designated wildlife sites in the local area of wintering bird interest. These are the River Avon LWS and Charlecote Gravel Pits and Thelsford Brook pLWS.
- 2.65 It is likely that a range of notable species breed and over-winter in and around the masterplan area.

Hazel Dormouse

- 2.66 The extensive network of hedgerows and woodland provide suitable habitat for hazel dormouse. There are no records of this species from the local area, with only two known populations within Warwickshire. It is considered highly unlikely that this species is present in the masterplan area.

Invertebrates

- 2.67 The variety of habitats within the masterplan area, including species-rich hedgerows, woodland, arable, scrub, watercourses and ponds provide suitable habitat for notable invertebrates.

Otter and Water Vole

- 2.68 The watercourses provide suitable habitat for both otter and water vole. There are records of these species from the local area and they may be present within the masterplan area.

Reptiles

- 2.69 There is extensive suitable habitat for reptiles within the masterplan area. This includes hedgerows bases, woodland, ponds, watercourses and arable field margins. Additionally, as part of an ecological desk study undertaken, a record of grass snake was returned, from the south-eastern corner of the masterplan area. Reptiles are therefore likely currently present within the masterplan area.

Other Relevant Species

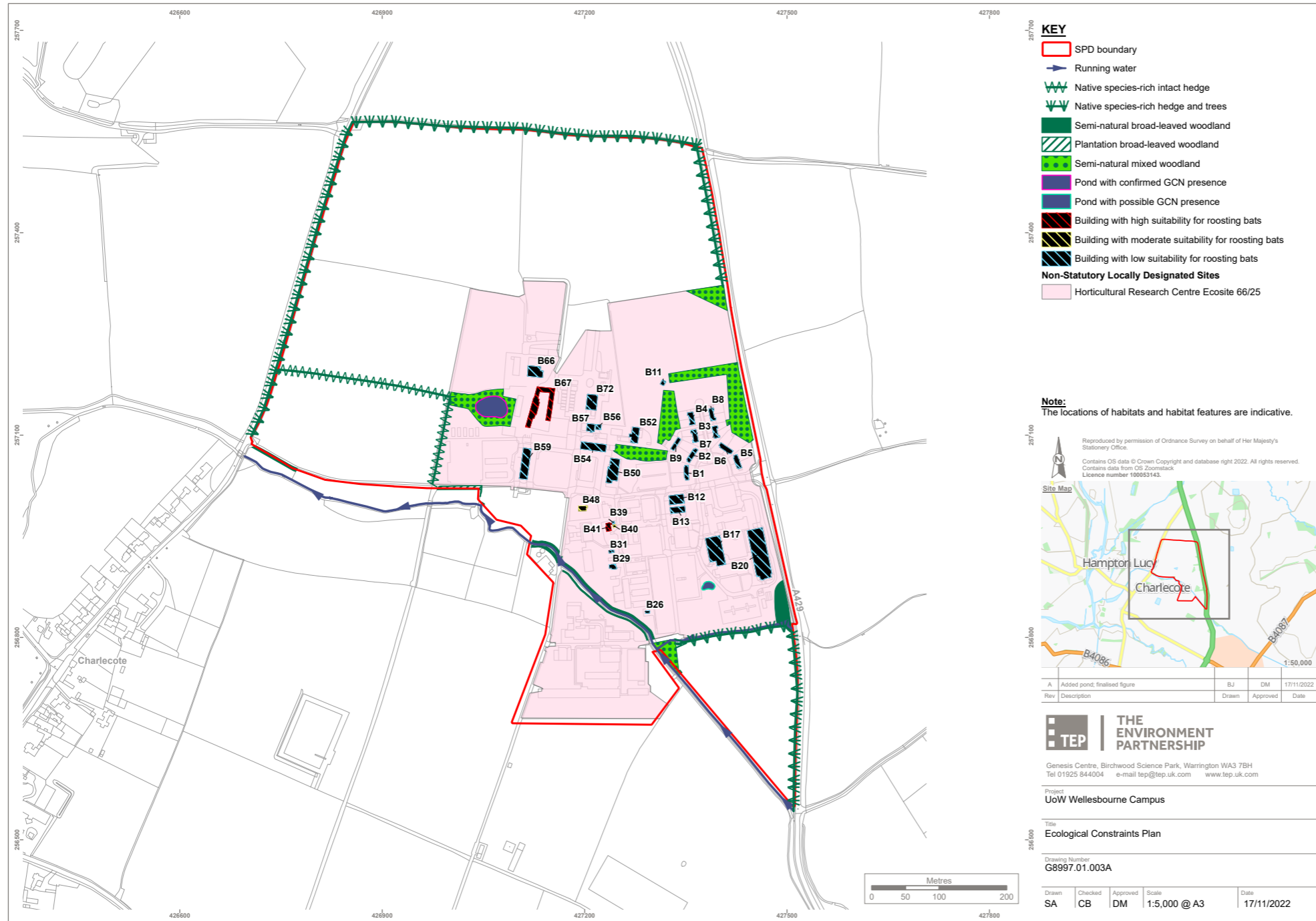
- 2.70 The masterplan area also provides suitable habitat for hedgehog, polecat and brown hare. There are records of these species from the local area and they may be present within the masterplan area.

Trees

- 2.71 Tree coverage across the Campus can be split into three distinct character settings which help build up the picturesque setting within which the Campus sits:
- Along the water course just south of the main campus buildings;
 - Around and adjacent to the campus buildings; and
 - In hedges across the agricultural field network particularly to the Northern part of the site.
- 2.72 Within each of these different character settings, there are varying degrees of tree quality and age that help build up the wider landscape setting and rural feel of the Campus.
- 2.73 It is therefore important that any existing tree and hedgerow vegetation be retained to protect these natural biodiversity corridors and enhance these where appropriate in order to retain the Campus' unique and attractive qualities. There is a particular opportunity to utilise these important features to help integrate development in the Northern and Western field parcels within the landscape and to mitigate any potential impacts.
- 2.74 The brook which traverses the Campus provides an important setting to the Campus and provides an important opportunity for green and blue infrastructure enhancement. The inclusion of appropriate buffers would ensure flora and fauna have the opportunity to flourish, thus providing habitat for wildlife and also contribute to the enjoyment of the site by the University. As the Masterplan is implemented, demonstration of adherence to the requirements of the Environment Act (2021) for Biodiversity Net Gain (BNG) will be required which will require assessment of the watercourses.
- 2.75 A preliminary extended Phase 1 habitat survey has been undertaken (including an assessment of the suitability of the site to support protected species). The document provides recommendations for future development to minimise risks to existing fauna on the site and enhance the environment to continue to support wildlife. Further surveys are required to be undertaken including but not limited to badgers, bats, birds, mammals and reptiles to support future planning applications.

Watercourses

- 2.76 It is acknowledged that the watercourse running through the site is a Local Wildlife Site (LWS) and as such, will be protected and wherever possible enhanced, given its LWS designation and wider importance to the ecological and open space strategies associated with the development of the site.



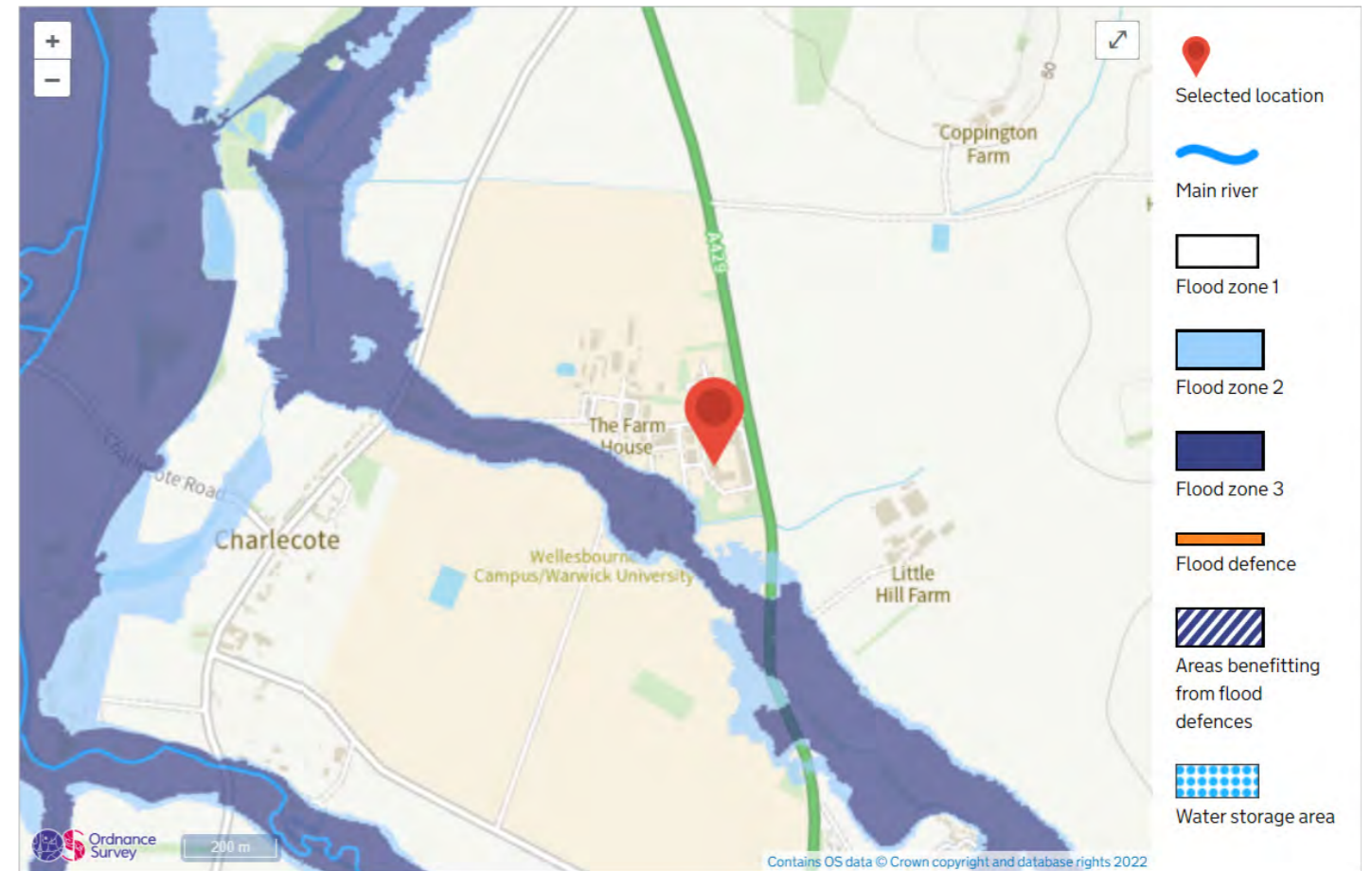
ECOLOGICAL CONSTRAINTS PLAN

FLOOD RISK AND DRAINAGE

- 2.77 The majority of the Campus is located within Flood Zone 1 of the Environment Agency's Flood Risk Map for Planning, which is recognised as the area with the lowest risk of flooding. However, with the presence of the existing brook that traverses across the Campus, and the River Dene to the south of the site, certain sections of the Campus lie within Flood Zone 2 and 3 respectively as shown on the accompanying plan.
- 2.78 The Strategic Flood Risk Assessment shows that the site has a 75% susceptibility to the risk of groundwater flooding across the site. This is confirmed by historical evidence of these occurrences. These are typically shallow puddles following heavy rainfall.
- 2.79 The installation of Sustainable Drainage Systems (SuDS) will be designed to regulate and control the current unrestricted discharge to the site watercourses. This will reduce and mitigate any risk of flooding both on the campus, and off site.

LAND USE

- 2.80 The Campus houses a range of uses which help to establish the area as a strategic location for innovation and continued investment. The original food research purpose of the Campus has now expanded and widened significantly as a result of strong relationships with the University's partners in industry. This has raised the profile of the Campus, both nationally and internationally, as a location for high-value sustainable engineering research, and development. In turn, this augments the profile of the Campus as a leading crop science and agri-tech centre of excellence.



FLOOD RISK MAP

SUMMARY

2.81 As set out through the contextual analysis there are a number of important natural features within and around the site that can be used to help shape the Masterplan. This will ensure that development proposals help create a high quality environment that facilitates the delivery of a sustainable new economic and innovation hub at Wellesbourne Campus.

2.82 The features that are located within the site have been identified on the constraints and opportunities diagram, on the right.

KEY

-  Landscape Buffer
-  Key Retained Landscape Features
-  Softer Development Edge
-  Low Ecological Value To Be Removed / Replaced
-  To Be Removed / Replaced
-  Existing Community, Residential & University Site Usage
-  Consolidated School of Life Sciences & Warwick Manufacturing Group Site Usage
-  Future Decant Space to provide space for existing operators to relocate to as the campus is developed.
-  Key Retained Assets
-  Public Bridleway
-  Site Boundary
-  Sensitive Interaction
-  Conservation Area
-  Sensitive Approach



CONSTRAINTS AND OPPORTUNITIES DIAGRAM



3. Framework Masterplan

- 3.1 This section of the masterplan establishes the vision and Masterplan, including the guiding principles for development. Based on the parameters for development the masterplan is structured around a series of inter-related themes. Including connectivity and sustainable transport, green and blue infrastructure, and landscape.

VISION FOR THE CAMPUS

- 3.2 Based on the contextual analysis and taking account of the aims and objectives of this masterplan, the vision for the Wellesbourne Campus that this Masterplan will work to achieve is as follows: “The campus at Wellesbourne offers a unique opportunity for the University to bring a major advanced research, development and skills facility to South Warwickshire.
- 3.3 By uniting key areas of Warwick’s globally excellent research and teaching with strong business networks and regional priorities, the University has the potential to build a second campus of international significance –and develop partnerships of wide reaching economic and social benefit.
- 3.4 The concept of co-locating knowledge-based businesses in an environment where they can make full use of flexible buildings and land facilities, and have access to highly relevant academic expertise, skills and networks is a model that exists in only a small number of leading universities.
- 3.5 The proposed concept for the University of Warwick Innovation Campus, Stratford-upon-Avon, is to develop a long-term interaction with business focused on key interconnecting themes that align our research with major external drivers. This research and innovation will take place in an exemplar environment that responds positively to its rural context and is integrated with the local community and the wider area.

OBJECTIVES FOR THE CAMPUS

- 3.6 Achieving the vision is underpinned by the following objectives:
- Embracing the highest standards of sustainability through ensuring development is resource efficient and resilient to the effects of climate change through achieving the highest standards of building design, the application of SuDS principles integrated with an enhanced network of green infrastructure that enriches local biodiversity
 - Strengthening opportunities for collaboration and integration between different sectors and faculties through providing a connected network of showcasing spaces and facilities to encourage knowledge sharing and cross-sector integration
 - Acknowledging the unique, tranquil nature of the campus through development that responds to its natural landscape setting, integrating the campus with the existing landscape assets and providing a form of development that compliments its rural setting
 - Providing an environment that supports improved well-being through a network of connected, accessible green and blue infrastructure, with an enhanced sense of community through improved provision of on-site services and facilities and better connections to Wellesbourne and Charlecote villages via walking and cycling
 - Protecting and enhancing the heritage assets of the Charlecote and Hampton Lucy Conservation Area through ensuring the campus responds appropriately to Charlecote village, maintaining a sense of openness at the south-west corner and enhancing public access to Charlecote through the Campus.
 - Reducing the reliance on the private car through encouraging access to the Campus via alternative modes of travel including cycling and public transport and providing a campus that is flexible to respond to advances in automotive technology including the use of autonomous vehicles.
 - Promoting the highest standards of design quality that ensures development is locally distinctive and appropriate to its rural context, enhancing the role of the existing rural barns as the heart of the campus and reflecting its historical use as the Horticultural Research Institute whilst also learning from local, national and international exemplars of good design.

CONCEPT

- 3.7 The context, vision and objective will form the basis for developing the proposed masterplan, setting principles that will allow for future proposals to adapt to particular conditions and situations within the site and relative to adjacent areas. Initial engagement and the assessment of the constraints and opportunities that exist on the campus has identified the following key issues;
- The need to create a key sense of place within the heart of the campus, utilising the existing barns.
 - The need to improve connectivity via walking and cycling both to and within the campus, particularly enhancing the existing public right of way running East- West.
 - The need to provide an enhanced research and development offer.
 - The potential for enhanced collaboration to foster research and development and for these to be central features of the campus.
 - The need to respond to the wider context particularly the heritage constraints of Charlecote.
 - Ensure a sensitive edge to the North and West that recognises the setting of the site in the rural landscape.
 - The need for increased floodrisk attenuation
 - The importance of maintaining the wider community offer on the campus to provide facilities to existing and prospective users and the wider community.
- 3.8 Ensuring the masterplan sufficiently addresses these issues would ensure the Masterplan provides a framework that is truly locally distinctive that responds appropriately to the context set by the core strategy.



BELOW - STRATEGIC THINKING DIAGRAM
RIGHT - CONCEPT DIAGRAM



INNOVATION HUBS

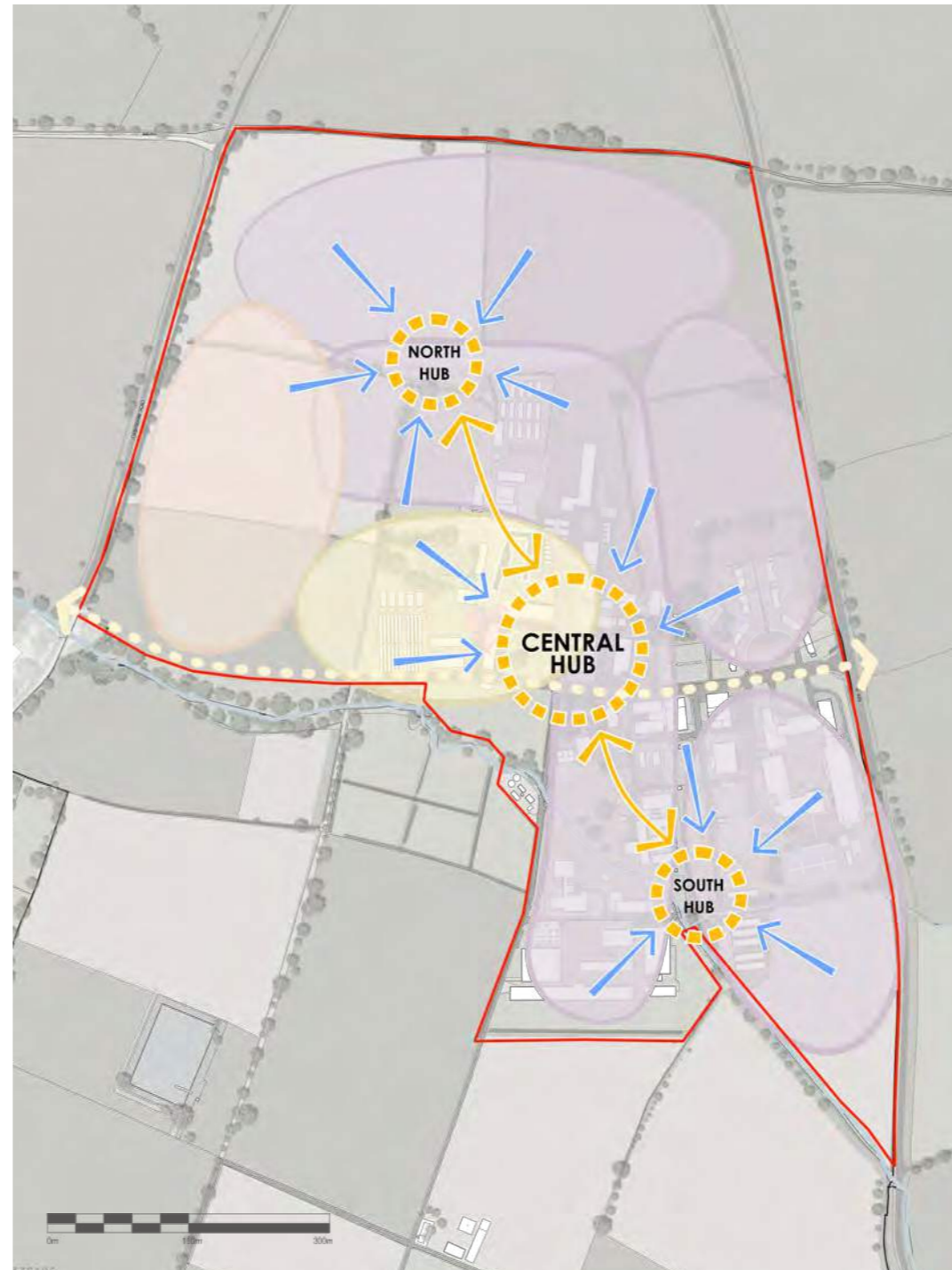
- 3.9 The proposed Innovation Hubs form a structural part of the concept for Wellesbourne Campus.
- 3.10 These intend to promote interaction, synergy and collaboration between organisations within the different zones and users of the Campus in general, acting as convergence points for exchange of ideas and knowledge.
- 3.11 The Hubs provide essential amenities to the Campus, working as the backbone that makes it stand out as a forward-thinking innovative destination.
- 3.12 Through showcase spaces, canteens, study spaces, labs and more, the network of Hubs across the Campus will be open to all, encouraging interactions to take place - while still maintaining privacy within the dedicated areas for each collaborator/tenant throughout the Campus.
- 3.13 The architectural design of the Hubs will respond to the character of the area they are located in, although these will ultimately read as new modern buildings that promote openness and communication.
- 3.14 Building type, materials and scale should reflect their landmark quality.

KEY

-  Innovation Hub
-  Synergy Between Hubs
-  Converging Zones and Users



IMAGES TO THE RIGHT ARE INDICATIVE ONLY OF WHAT COULD BE ACHIEVED AT WELLESBOURNE CAMPUS - THEY ARE NOT REQUIREMENTS



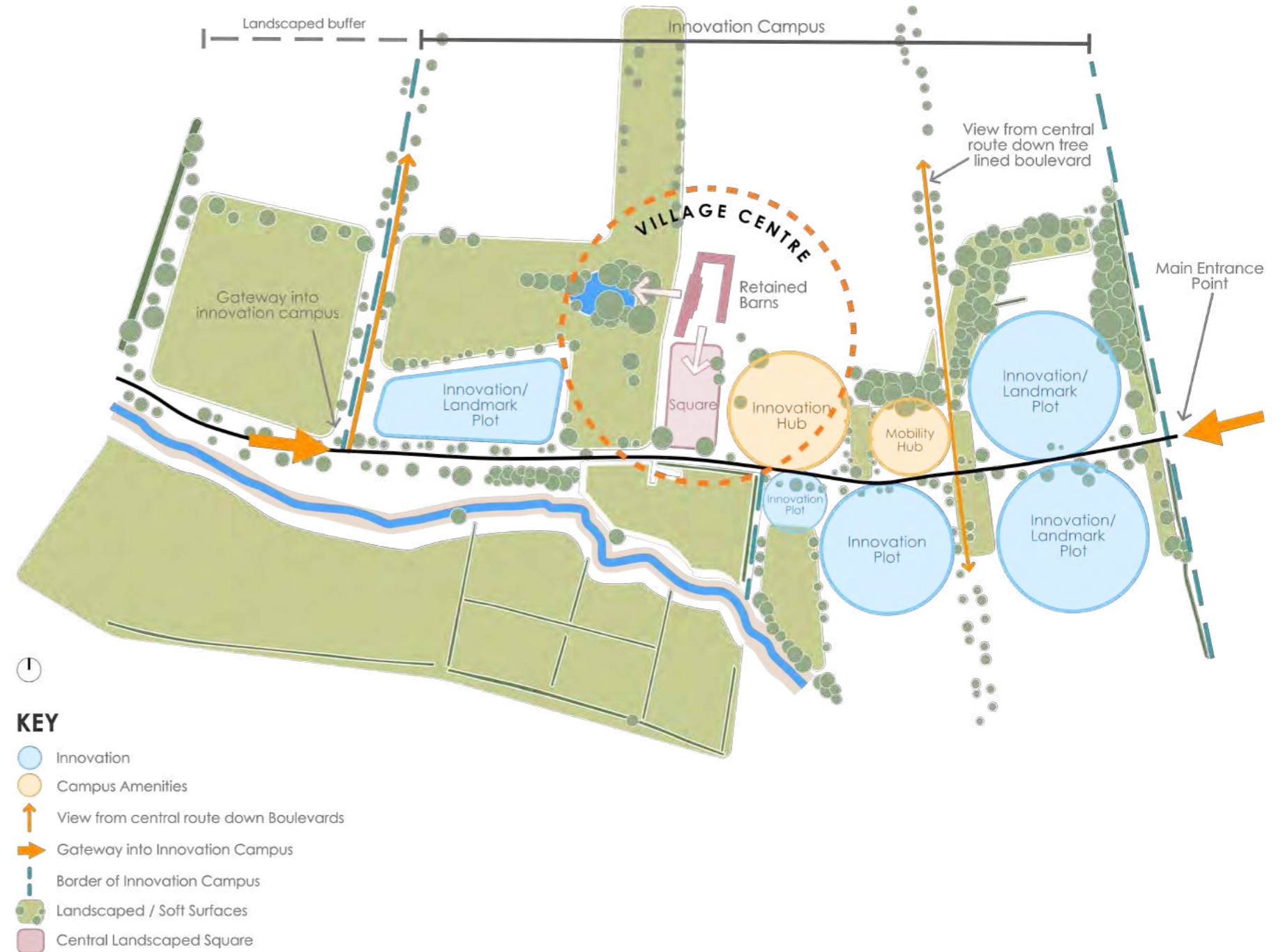
INNOVATION HUBS AS THE BACKBONE OF THE CAMPUS



PRECEDENTS FOR THE INNOVATION HUBS DISPLAYING OPEN COLLABORATIVE SPACE, WITH NATURAL MATERIAL PALETTE.

CENTRAL BOULEVARD / VILLAGE CENTRE

- 3.15 Taking forward the concept about re-establishing the barns as the heart of the campus, this will take the shape of the village centre, responding to the main east-west boulevard.
- 3.16 This will provide enhanced east-west connectivity from the main entrance point on the A429, with active frontages providing a welcome environment to visitors and staff arriving to the campus. There is an Opportunity for landmark/feature buildings along this axis, so as to create an identity and gateway for the Campus.
- 3.17 The uses should be focused on the campus community, mainly to enhance their experience on campus - mobility hub, showcase hub and canteen, campus HQ, feature/landmark innovation buildings and a more formal square, connecting the boulevard with the re-purposed barn range.
- 3.18 Combination of soft and hard surfaces along the main boulevard, providing rhythm and activity to the heart of the campus.



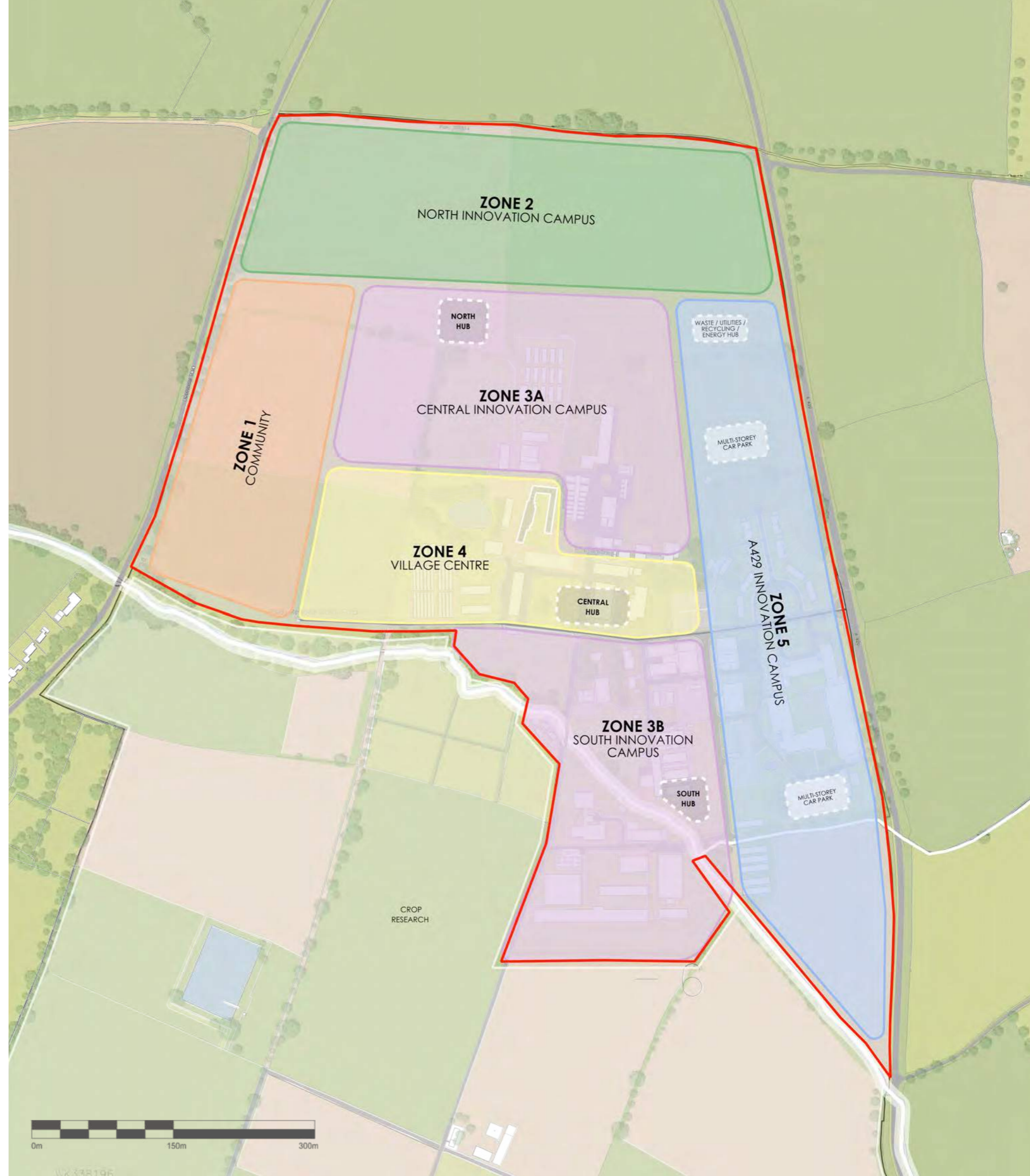
VILLAGE CENTRE AND MAIN BOULEVARD DIAGRAM

CHARACTER AREAS

- 3.19 In order to respond to the different constraints within and surrounding the campus, five distinct character areas have been identified.
- 3.20 These areas allow for the masterplan to be implemented in a cohesive manner, through defining the appropriate character for each “neighbourhood”, reflecting existing site constraints and opportunities:
- Community – community uses including relocated playing fields, nursery and ancillary campus accommodation
 - North Innovation Campus - Research and Development
 - Central Innovation Campus – Research and Development
 - Village Centre – Re-purposed barns providing community facilities including cafe, mobility hub
 - South Innovation Campus – Research and Development
 - East Innovation Campus (re-name) – Research and Development
- 3.21 The distinctive characters for each area will be established through guidance on general look and feel, materiality, scale and building type set out in the following section of the masterplan.
- 3.22 Landscape, ecology, movement, heritage and sustainable drainage strategies will be incorporated in conjunction with these guidelines.
- 3.23 The adoption of these principles will ensure that as the Masterplan is implemented, development will respond positively and appropriately to its unique rural context.
- 3.24 Through following the principles established in this master plan including those related to landscape, ecology, open space and sustainable drainage it is envisaged that built form will constitute approximately 50% of the masterplan area



CHARACTER AREAS DIAGRAM



CHARACTER AREA ZONE 1 COMMUNITY



SKETCH SECTION ILLUSTRATING LAYERING OF BUFFER PLANTING TO SITE EDGE ALONG BIRMINGHAM ROAD. THE LANDSCAPE BUFFER ALONG THIS SITE BOUNDARY SHOULD BE A DEPTH OF 20-25M AND CONSIST OF A MIX OF NATIVE HEDGEROW AND WOODLAND EDGE TYPES TO PROVIDE ROBUST SCREENING FROM THE NEARBY CONSERVATION AREA.



INDICATIVE PLAN FOR GUIDANCE ON FUTURE DEVELOPMENT WITHIN ZONE 1

ZONE 1
Community

Description

- 3.25 This area includes the westernmost part of the site, adjacent to the Birmingham Road which offers a rural approach to the Charlecote and Hampton Lucy Conservation Area, with views from the Conservation Area into the Campus.
- 3.26 It provides an important opportunity for improved public access and therefore is suitable for smaller scale community uses.

Suitable Uses

- 3.27 Uses focused on the community - playing fields, gym/pavilion, nursery and relocated ancillary on-campus accommodation.
- 3.28 Relocated playing fields should be situated in the South-Western corner of the character area.

Form

- 3.29 Opportunity for softer, lower density development plots, to be used by the campus and the wider Charlecote and Wellesbourne communities.

Materials

- 3.30 Materials that are sympathetic to the rural edge of the character area, predominance of natural tones, wood and brick facades which promote integration with the surroundings.

Building Heights

- 3.31 Rural scale buildings with a modern look and feel, ranging between 1 and 2 storeys set back from the Western edge to ensure substantial landscaped screening.
- 3.32 Predominance of soft landscape over minimal built environment, typical features of rural farmsteads and hamlets in the area.

Transition

- 3.33 As the Western gateway into the Innovation

Campus, the area works as a layered landscape buffer and as a softer link to Charlecote Conservation Area, allowing for a transitional area with limited visual impact.

- 3.34 Lighting should be low level to avoid any spillage into Charlecote.

Heritage Principles

- 3.35 The retention of open space at the point at which the campus interacts with the Conservation Area helps minimise any change to the character of the approach to, and exit from, the designated heritage asset.
- 3.36 Improved foot and cycle connectivity ties in to the overall heritage connectivity provides improved public access to the heritage assets.

Ecology Principles

- 3.37 Naturally integrated landscape strategy with swathes of native species, rich meadow planting to provide habitats rich in pollinators, and to support and enhance important wildlife corridors around the character area set within a 20-25m metre deep landscape buffer. Measured from the western boundary of the site.
- 3.38 The majority of existing hedgerows retained to provide connectivity between landscape buffer and green corridor in centre of site and new hedgerows and trees will be planted to improve overall connectivity.
- 3.39 Enhancement of the existing watercourse corridor to benefit biodiversity through provisions of connected sustainable drainage systems.

Landscape Principles

- 3.40 Allowance for a layered landscape buffer along the visually sensitive western periphery of the campus, adjacent to the northern boundary of Charlecote and Hampton Lucy Conservation Area.

- 3.41 The area should be dominated by open spaces with limited development, which should be set well-back from the site boundary. Any developments should be characterised by its low density and height and should ensure a close association with the natural landscape.
- 3.42 Principal open space for the campus should be formed through provision of grass playing fields for use by the campus and local communities.
- 3.43 Planting and mounding developed utilising the existing field pattern at the edge of the area will provide diffused screening for the public views of the western boundary through a series of layers of trees, high hedges and earthworks into the site.
- 3.44 Native trees and shrub species should be typical of the Terrace Farmlands of the Avon Valley Landscape Character Area.
- 3.45 Landscape elements should be closely associated with the green infrastructure strategy for surface water attenuation and seasonal wetland to form well-wooded streamlines given proximity of existing watercourse through the site.
- 3.46 The landscape should protect and enhance existing wildlife corridors.
- 3.47 Connection with the existing public byways to provide a low key, traffic-free gateway for pedestrians and cyclists from adjacent settlements to provide access into the site to maintain the rural character of the area.
- 3.48 Sensitive use of lighting to mitigate the impacts of light spillage.

Playing Pitches

- 3.49 The playing pitches will be at least equivalent in scale to the existing pitches and will be constructed in accordance with Sport England's Natural Turf for Sport Design Note. Appropriate changing facilities and space to store equipment will also be provided.



IMAGES DISPLAYING OPEN GREEN SPACE AND INTEGRATED NATURAL MATERIAL LIGHT DEVELOPMENT
IMAGES ABOVE ARE INDICATIVE ONLY OF WHAT COULD BE ACHIEVED AT WELLESBOURNE CAMPUS - THEY ARE NOT REQUIREMENTS

CHARACTER AREA ZONE 1 KEY LANDSCAPE COMPONENTS



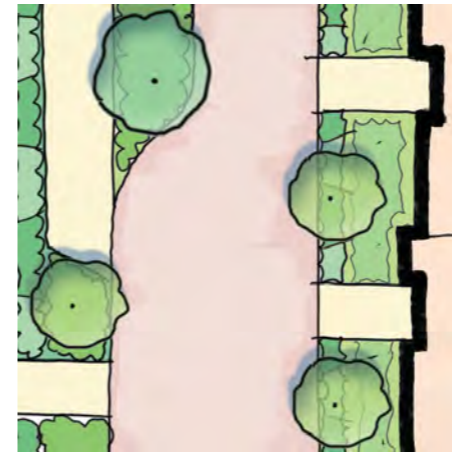
OPEN AREAS OF IMPROVED GRASSLAND FOR USE AS COMMUNAL PLAYING FIELDS.



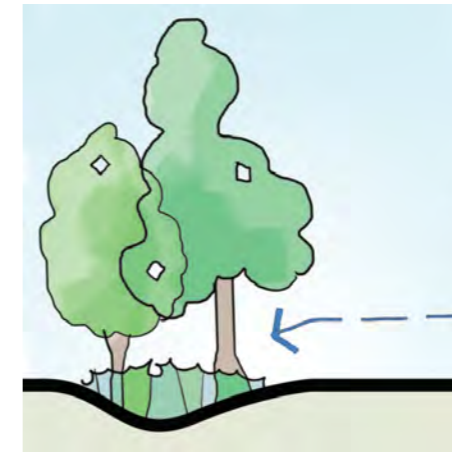
BOUNDARY PLANTING TO PROVIDE IMPERMEABLE SCREENING.



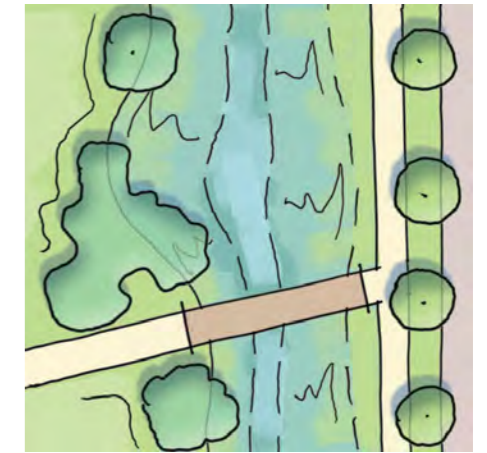
PATHS TO CATER FOR SHARED FOOT/CYCLE USAGE AS WELL AS FOR EXERCISE ROUTES.



STREETS TO BE SHARED SURFACES WITH VERY LIMITED ACCESS FOR VEHICLES.

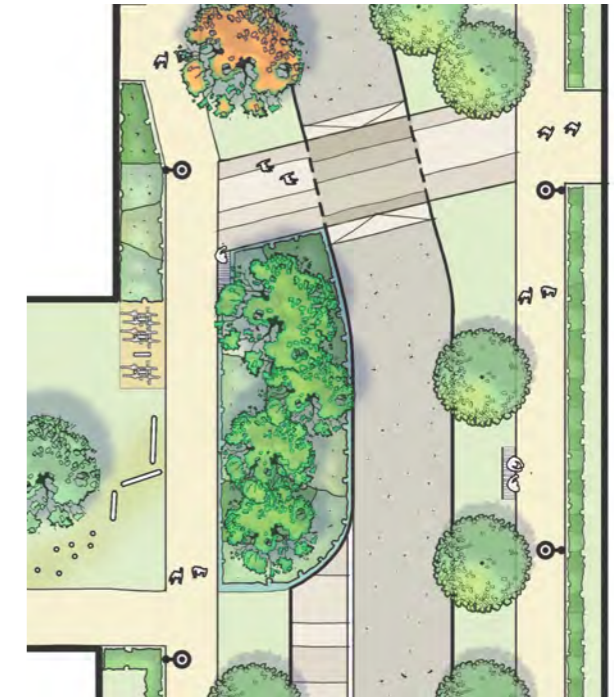


SUDS FOR STREETS TO CONSIST OF DRY SWALES WITHIN VERGES.



SUDS TO BE LARGE EXPANSES OF NATURALISTIC DRY ATTENUATION AREAS.

SUPPORTING IMAGES



ZONE 1 TYPICAL STREET INDICATIVE SKETCH

IMAGES DISPLAYING OPEN GREEN SPACE AND INTEGRATED LIGHT DEVELOPMENT WITH NATURAL MATERIALS

CHARACTER AREA ZONE 2 NORTH INNOVATION CAMPUS



INDICATIVE PLAN FOR
GUIDANCE ON FUTURE
DEVELOPMENT WITHIN ZONE 2



ZONE 2

North Innovation Campus

Description

3.50 The Northern edge character area is the part of the Campus that responds to the rural nature of the surrounding agricultural fields and farmland. In particular the scale, materials and landscaping will need to reflect the location at the edge of the campus set within its rural surroundings.

Suitable Uses

3.51 Combination of research and innovation uses.

Form

3.52 Opportunity for softer, lower density development.

Materials

3.53 Materials that are sympathetic to the agricultural edge of the Campus with predominance of natural tones, wood and glazed facades which promote transparency, collaboration and sustainability.

- Consideration of the use of green roofs at the Northern edge with angled roof lines, with lower eaves levels closest to site boundary.

Building Heights

3.54 1-2 storeys at the Northern edge of the character area increasing to 2-3 storeys at the southern edge of the character area to front on to the 'central loop' of internal roadways.

3.55 Rural scale buildings with a modern look and feel.

3.56 Use of green and slope roofs to allow for attenuation of visual impact and integration of built form with the surrounding agricultural fields.

Transition

3.57 Where buildings are adjacent to open space, boundary treatments and materials should limit the use of hard boundary features to ensure a natural transition into green infrastructure, providing a sense of openness.

Heritage Principles

3.58 Creation of a green 'buffer' along the site's northern boundary would create a soft green edge to the Northern side of the campus when viewed from Wasperton and the group of designated heritage assets at Thelsford Priory and Farm.

3.59 Creation of a green corridor providing connection to the campus centre and the re-purposed barns.

Ecology Principles

3.60 Naturally integrated landscape strategy with swathes of native species, rich meadow planting to provide habitats rich in pollinators, and to support and enhance important wildlife corridors around the character area set within a 10-15m landscape buffer.

3.61 More extensive natural wildflower landscaping in the North-Western corner providing additional screening, transition and ecological value.

3.62 Incorporation of Sustainable Drainage Systems (SuDS) within plots for flood mitigation and to provide suitable features for wildlife. SuDS to be created to have a more natural quality, incorporating features such as permanent levels of water, native aquatic vegetation and varying bank gradients.

3.63 Retention of majority of mature hedgerows at boundaries and in the centre of the character area to provide visual screening and retain features of value to biodiversity.

3.64 Incorporation of green roofs as part of the landscape and biodiversity net gain strategies.

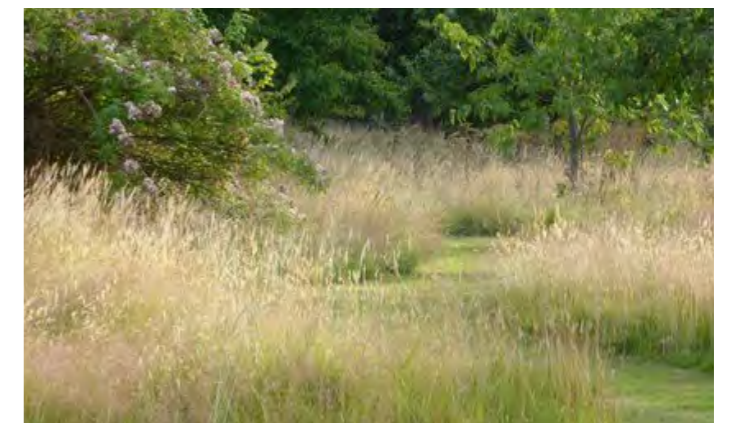
Landscape Principles

3.65 The northern edge of the area should combine mounding and new woodland planting to incorporate the route of the public footpath

CHARACTER AREA ZONE 2

(147/SD 131 a/2), which follows the northern boundary, into the sustainable drainage network (SuDs) and open space strategy to help provide an enhanced public right of way.

- 3.66 The massing and scale of development plots should be sensitive to their rural location, with buildings located away from the northern boundary behind earthworks and new tree and hedgerow planting, to diffuse the views of buildings from the north.
- 3.67 The plots should be characterised by low density development and having a close association with the landscape - typical of rural farmsteads and hamlets in the area.
- 3.68 The north-west areas of the site should be dominated by open spaces to take account of the key viewpoint into the site at the point where the public footpath connects with the Birmingham Road.
- 3.69 Native trees and shrub species should integrate new buildings into the landscape of the character of the area through careful grouping, reflective of the local landscape character area.
- 3.70 Landscape elements should be closely associated with the green and blue infrastructure strategy for surface water attenuation and seasonal wetland to form well-wooded streamlines.
- 3.71 The campus footpath network should connect with existing byways.
- 3.72 Sensitive use of lighting to mitigate the impacts of light spillage

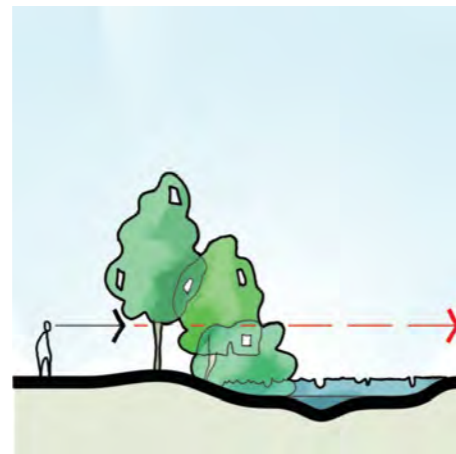


IMAGES DISPLAYING OPEN GREEN SPACE AND DEVELOPMENT INTEGRATED WITH SURROUNDING LANDSCAPE
IMAGES ABOVE ARE INDICATIVE ONLY OF WHAT COULD BE ACHIEVED AT WELLESBOURNE CAMPUS - THEY ARE NOT REQUIREMENTS

CHARACTER AREA ZONE 2 KEY LANDSCAPE COMPONENTS



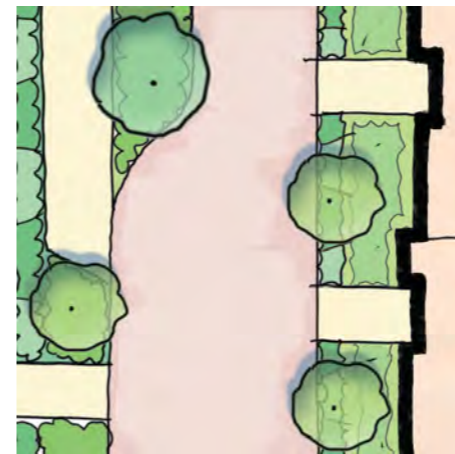
NATURALISTIC CORRIDORS CONSISTING OF OPEN AMENITY SPACES, PEDESTRIAN/CYCLE ROUTES AND ATTENUATION AREAS.



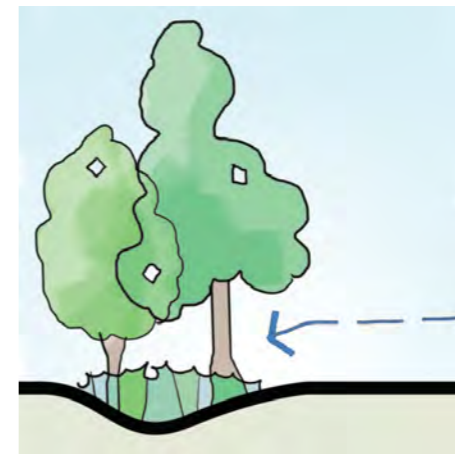
WET WOODLAND PLANTING TO LINE ATTENUATION BASINS AND SWALES.



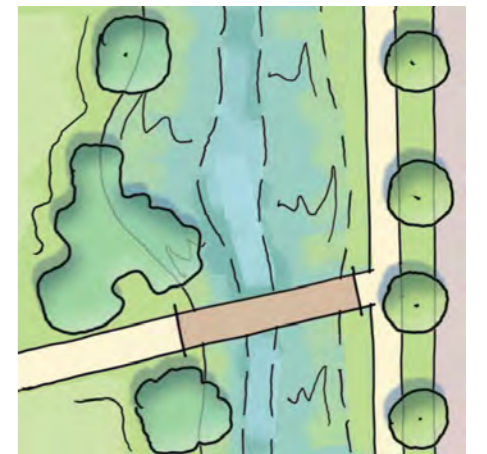
NATIVE SCREENING BUFFERS TO NORTHERN SITE BOUNDARY.



STREETS TO BE SHARED SURFACES WITH VERY LIMITED ACCESS FOR VEHICLES.



SUDS FOR STREETS TO CONSIST OF DRY SWALES WITHIN VERGES.



SUDS TO BE LARGE LINEAR EXPANSES OF NATURALISTIC DRY ATTENUATION AREAS.

SUPPORTING IMAGES



IMAGES DISPLAYING OPEN GREEN SPACE AND NATURAL LANDSCAPES



ZONE 2 TYPICAL STREET INDICATIVE SKETCH

CHARACTER AREA ZONE 3A CENTRAL INNOVATION CAMPUS



ZONE 3A
Central Innovation Campus

INDICATIVE PLAN FOR GUIDANCE ON FUTURE
DEVELOPMENT WITHIN ZONE 3A

Description

- 3.73 Central innovation character area, comprising research and innovation featuring some existing users and the future users envisaged for the Innovation Campus.
- 3.74 The built environment is led by key landscape assets, with buildings responding positively to the proposed north-south green infrastructure corridor connecting with the village centre to the south and allowing integration between different occupiers.

Suitable Uses

- 3.75 Combination of research and innovation uses, as well as collaborative activities between campus users within the innovation hubs.

Form

- 3.76 Opportunity for moderately dense development plots.

Materials

- 3.77 Predominance of neutral tones, metallic, wood and glazed facades which promote sustainability, and support collaboration, through providing transparent, active frontages.

Building Heights

- 3.78 Buildings with a modern look and feel, ranging between 2 and 3 storeys.

Transition

- 3.79 Where buildings are adjacent to open space, boundary treatments and materials should limit the use of hard boundary features to ensure a natural transition into green infrastructure, providing a sense of openness.

Heritage Principles

- 3.80 As the character area transitions away from existing designated heritage assets to the South-West, greater building heights suitable, and capacity for innovative design.

Ecology Principles

- 3.81 Combination of soft and hard surfaces within the green corridor, with undulating paths, urban furniture and gathering spaces - promoting a slower pace.
- 3.82 No barriers to wildlife movement within the green corridor which provides connectivity between the pond and brook to the south and landscape buffer to the north.
- 3.83 Incorporation of Sustainable Drainage Systems (SuDS) of a natural quality in each plot for flood mitigation and to benefit biodiversity.
- 3.84 Incorporation of green/sedum roofs as part of the landscape and biodiversity net gain strategies.
- 3.85 Removal of non-native ornamental hedges and replacement with native species-rich hedgerows.

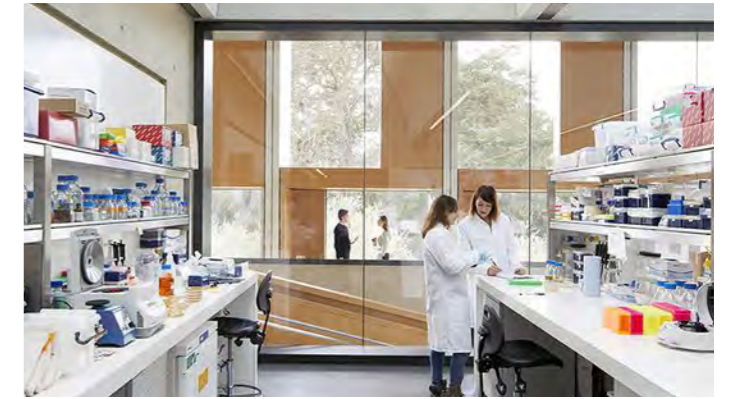
Landscape Principles

- 3.86 The form and layout of the central part of the campus is to be driven by the SuDs and open space strategy, integrating with the community character area. This strategy builds upon the enhancement of the existing landscape and the existing barn and associated pond.
- 3.87 Landscape elements should be closely associated with both the green infrastructure and SuDs strategies forming a network of linear parkland areas characterised by groups of trees, wet woodland and swales.
- 3.88 A cycle and footpath network will connect the development plots of the Inner Campus areas to the east of the site via the landscape open spaces.

CHARACTER AREA ZONE 3A

These will be separated from service roads as much as possible.

- 3.89 Groups of native trees and shrub species should be planted in appropriate locations throughout the Character Area to help integrate new buildings into the landscape
- 3.90 The zone will be accessible via the secondary service road network. This will be designed to reduce traffic speed and provide priority to cyclists and pedestrians.

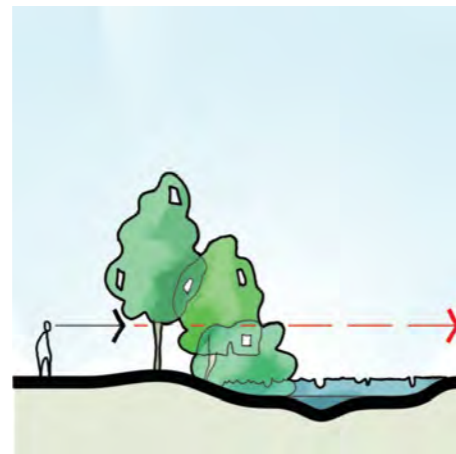


IMAGES DISPLAYING OUTDOOR GREEN SPACE, LAB INNOVATION AND RESEARCH SPACE, AND NEUTRAL TONED FACADES
IMAGES ABOVE ARE INDICATIVE ONLY OF WHAT COULD BE ACHIEVED AT WELLESBOURNE CAMPUS - THEY ARE NOT REQUIREMENTS

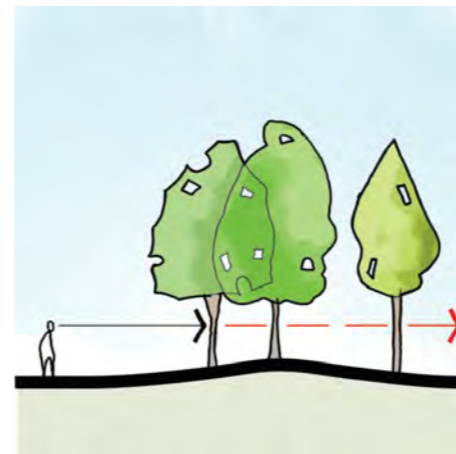
CHARACTER AREA ZONE 3A KEY LANDSCAPE COMPONENTS



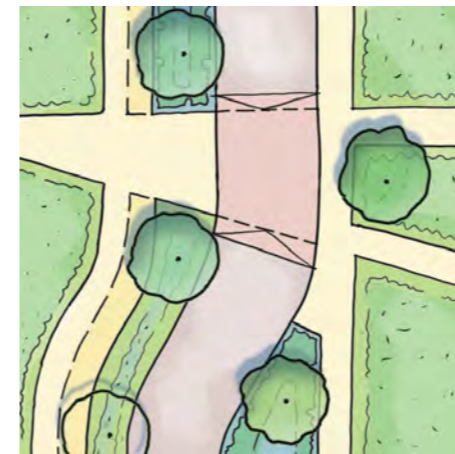
NATURALISTIC CORRIDORS CONSISTING OF OPEN AMENITY SPACES, PEDESTRIAN/CYCLE ROUTES AND ATTENUATION AREAS.



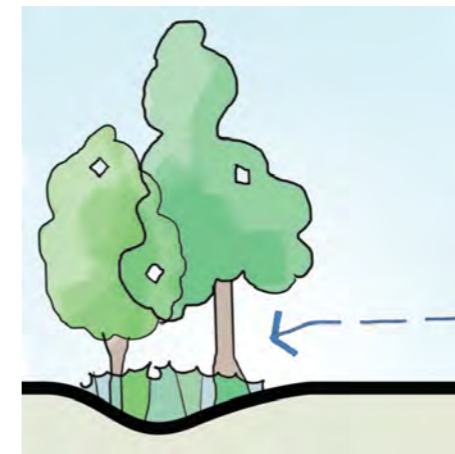
WET WOODLAND PLANTING TO LINE ATTENUATION BASINS AND SWALES.



GROUPS OF CLEAR STEM PARKLAND TREES WITH VIEWS THROUGH CANOPIES.



STREETS TO CATER FOR LIMITED VEHICLE USAGE WITH SHARED FOOT/CYCLE WAYS TO THE BACK OF VERGES, SWALES AND TREES.



SUDS FOR STREETS TO CONSIST OF DRY SWALES WITHIN VERGES.

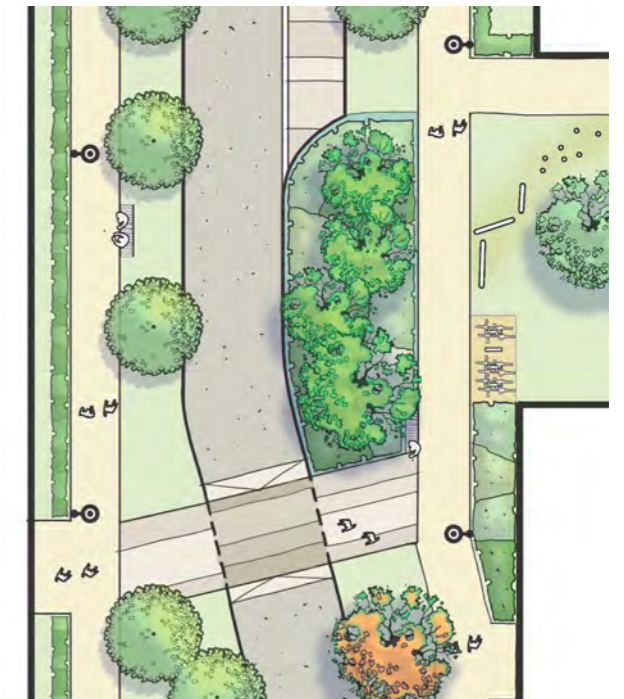
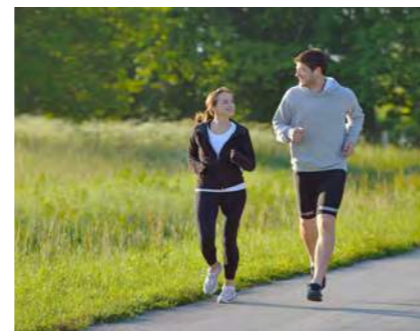


RETAINED AND ENHANCED FIELD POND TO FORM AS A CENTRAL FEATURE WITHIN THE CAMPUS HEART.

SUPPORTING IMAGES



IMAGES DISPLAYING OPEN GREEN SPACE AND NATURAL LANDSCAPES



ZONE 3A TYPICAL STREET INDICATIVE SKETCH

CHARACTER AREA ZONE 3B SOUTH INNOVATION CAMPUS



INDICATIVE PLAN FOR GUIDANCE ON FUTURE DEVELOPMENT WITHIN ZONE 3B

ZONE 3B

South Innovation Campus

Description

- 3.91 Part of the Central campus character area, that will accommodate innovation uses situated at the Southern edge of the built form, transitioning to the agricultural research fields situated to the South.
- 3.92 The built environment is led by landscape assets and is of a form and scale that responds positively to the agricultural research fields, new woodland path and also to the rest of the Innovation Campus to the north.
- 3.93 There will be improvements to the cycle and footpath network associated with enhancements to the northern edge of the existing brook.

Suitable Uses

- 3.94 Combination of research and innovation uses, as well as collaborative activities between campus users within an innovation hub.

Form

- 3.95 Opportunity for moderately dense development plots. To the North of the Brook development would be moderately dense and to the south of the brook this would be lower density, reflective in scale of the existing glass houses.

Materials

- 3.96 To the North of the Brook a predominance of neutral tones, metallic, wood and glazed facades to promote sustainability and support collaboration through providing transparent, active frontages.
- 3.97 To the South of the brook materiality is likely to consist of glazed and wood facades, reflecting the sensitive transition to the open agricultural fields to the South

Building Heights

- 3.98 North of the brook buildings should be 2 - 3 storeys in height, south of the brook buildings should be 1-2 storeys in height.

Transition

- 3.99 Ensure a natural transition into green infrastructure where buildings are adjacent to provide a sense of openness.

Ecology Principles

- 3.100 Incorporation of Sustainable Drainage Systems (SuDS) with a natural quality in each plot for flood mitigation and to benefit biodiversity.
- 3.101 Incorporation of green/sedum roofs where appropriate to their use as part of the landscape and biodiversity net gain strategies.

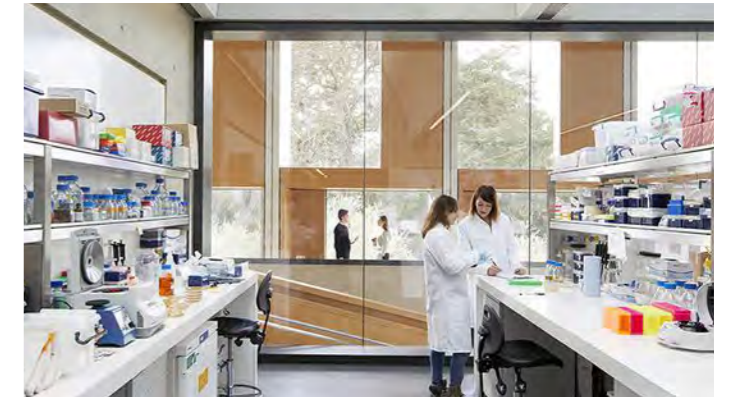
Landscape Principles

- 3.102 Emphasis on the new woodland path along the existing brook - enhancing connections through the site, encouraging contact with its rural environment and promoting a slower pace.
- 3.103 New woodland path to be designed and created in a sensitive manner in relation to ecology with new lighting avoided and tree removal minimised to mitigate impacts on ecological assets with.
- 3.104 The South Innovation Campus landscape character features close co-ordination with the green infrastructure and SuDs in the form of green roofs, rain gardens, swales and attenuation basins.
- 3.105 Native trees and shrub species should integrate new buildings into the landscape character of the area through careful grouping.
- 3.106 Riparian planting will line the course of the brook to enhance the existing wildlife corridor. This will also increase the flood capacity of the watercourse as part of the site wide water attenuation strategy.
- 3.107 The primary streets to the North and East of this zone will form a central boulevard serving the

CHARACTER AREA ZONE 3B

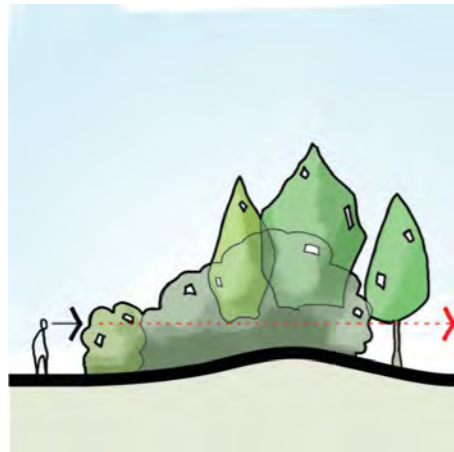
centre of the campus, with priority to vehicle traffic at reduced speeds. Wide pedestrian and cycle zones will be segregated from traffic by street trees and urban drainage zones.

- 3.108 Landscape elements should be closely associated with both the green infrastructure and SuDs strategy, forming a network of linear parkland areas characterised by groups of trees, wet woodland and swales.
- 3.109 The massing and scale of development plots to the North of the zone will be of a form that helps to animate the central boulevard, showcase activity within the buildings and create social and generative space
- 3.110 Sensitive use of lighting to mitigate the impacts of light spillage.

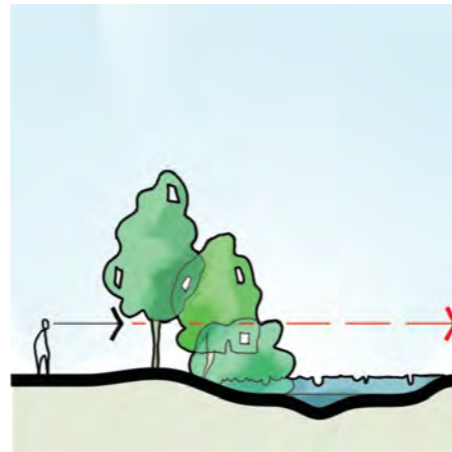


IMAGES DISPLAYING THE INTEGRATION OF NATURE AND RESEARCH AND INNOVATION LABS AND GLASSHOUSES/POLYTUNNELS
IMAGES ABOVE ARE INDICATIVE ONLY OF WHAT COULD BE ACHIEVED AT WELLESBOURNE CAMPUS - THEY ARE NOT REQUIREMENTS

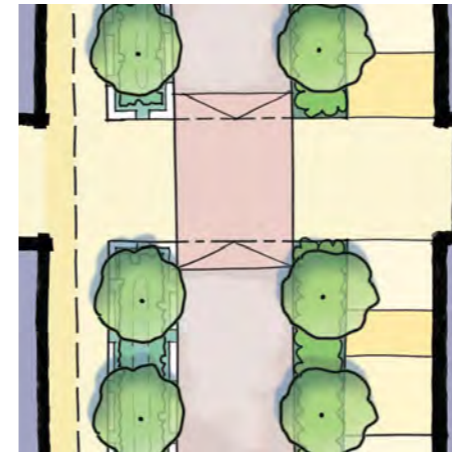
CHARACTER AREA ZONE 3B KEY LANDSCAPE COMPONENTS



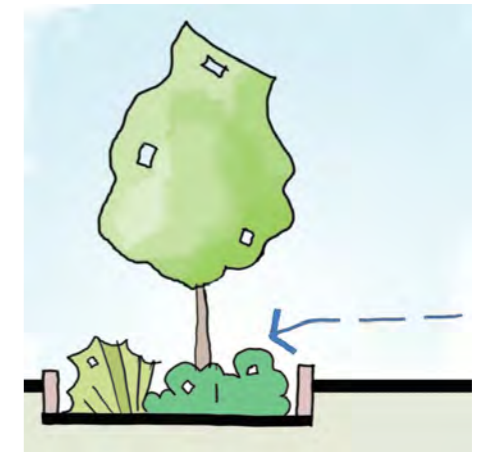
BOUNDARY PLANTING TO PROVIDE IMPERMEABLE SCREENING ALONG SOUTHERN BOUNDARY.



WET WOODLAND PLANTING TO LINE RIVER CORRIDOR AND PROVIDE SCREENING FROM CONSERVATION AREA.

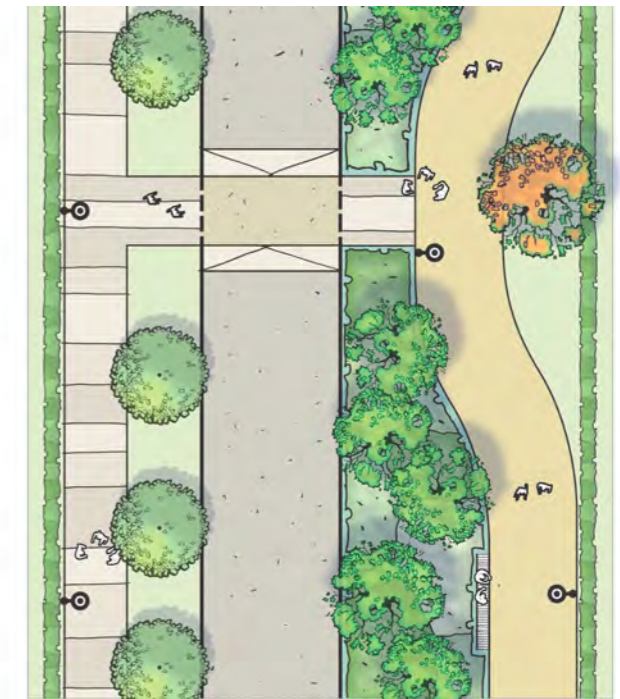
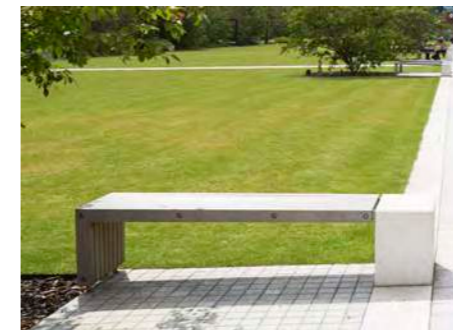


PRIMARY STREETS, SUITABLE FOR ALL TRAFFIC. URBAN CHARACTER WITH LOW SPEEDS.



SUDS FOR STREETS TO CONSIST OF RAIN GARDENS WITHIN ROADSIDE VERGES.

SUPPORTING IMAGES



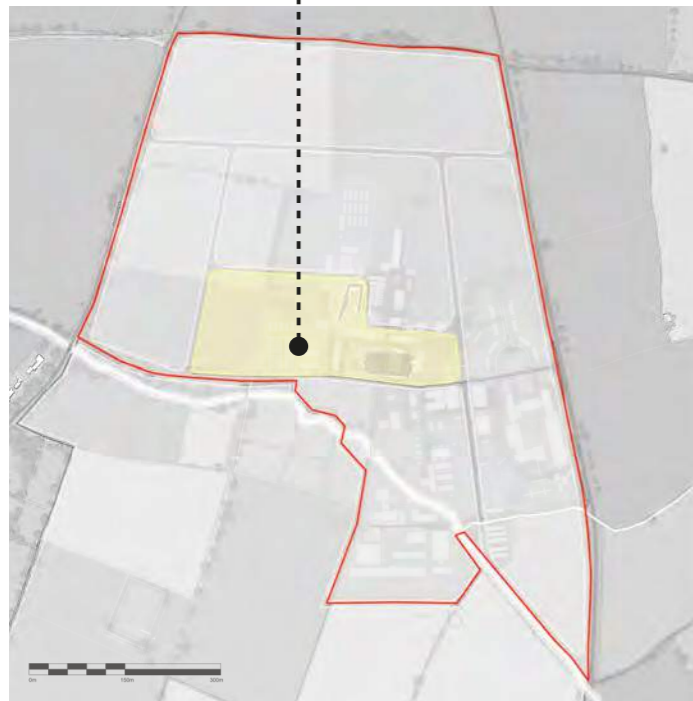
ZONE 3B TYPICAL STREET INDICATIVE SKETCH

IMAGES DISPLAYING OPEN, GREEN PUBLIC AND MAINLY PEDESTRIAN SPACES

CHARACTER AREA ZONE 4 VILLAGE CENTRE



INDICATIVE PLAN FOR GUIDANCE ON FUTURE DEVELOPMENT WITHIN ZONE 4



ZONE 4
Village Centre

Description

- 3.111 The social heart of the campus, the development of which will be driven by key retained and enhanced landscape and non-designated heritage assets - including the pond, hedgerows, and barns that are to be re-purposed.
- 3.112 These features orientate towards the enhanced east-west central boulevard. This provides an opportunity for a landmark innovation building and a more formal square, framing the re-purposed barn range and connecting the north-south green infrastructure corridor and the central boulevard.

Suitable Uses

- 3.113 Proposed uses to be focused on the campus community, providing a central community hub that integrates the different areas of the campus including a mobility hub, innovation hub and canteen, campus HQ, and some research and development uses within the landmark innovation building.

Form

- 3.114 Low density built development - responding to the enhanced green and blue infrastructure assets, with a combination of soft and hard surfaces along the central boulevard, providing rhythm and activity to the heart of the campus.
- 3.115 Buildings with active ground floors and frontages to main boulevard as a central gathering point - welcoming visitors and staff on campus and emphasising the connection between interior spaces and the greenery and rurality of the campus.

Materials

- 3.116 To reinforce the role of this character area as the

Village centre buildings should utilise bolder shapes and a wider variety of tones and materials, including brick, wood and glazed facades.

Building Heights

- 3.117 Buildings ranging between 1 and 3 storeys.
- 3.118 Opportunity for landmark feature buildings along the central boulevard, so as to create an identity and gateway for the Campus.

Transition

- 3.119 Ensure a natural transition into green infrastructure where buildings are adjacent to provide a sense of openness.

Ecology Principles

- 3.120 Naturally integrated landscape strategy, incorporating the existing features and enhancing them in a modern approach, namely linking to the North-South green corridor.
- 3.121 Enhancement of the main pond and adjacent vegetation and landscape, incorporating it in the strategy for flood mitigation and ecology.
- 3.122 Existing woodland blocks to be retained.
- 3.123 Connectivity between the brook to the south and the landscape buffers to the north and west maintained through the woodland corridor, hedgerow retention and use of amphibian tunnels below roads.
- 3.124 Incorporation of Sustainable Drainage Systems (SuDS) with a natural quality in each plot for flood mitigation and to benefit biodiversity.

Additional Features

- 3.125 Mobility Hub as a key feature, promoting alternative forms of movement on campus - this Hub could provide bus facilities, e-scooter/e-bike hire, parcel lockers, etc.

CHARACTER AREA ZONE 4

Landscape Principles

- 3.126 The landscape will be driven in form and distribution by the SuDs and open space strategy.
- 3.127 The creation of an east-west foot and cycle connection along a central boulevard is a key driver for this area. The character of the landscape will transition from a naturalistic semi-rural landscape adjacent to Charlecote, to a managed parkland campus within the Village Centre.
- 3.128 The character of the Village Centre will be urban and formal, with avenue trees, green lawns and parkland trees layered alongside hard landscape plazas suitable for hosting community events.
- 3.129 Landscape elements should be closely associated with both the green infrastructure and SuDs strategy, forming a network of linear parkland characterised by parkland tree groups, wet woodland and swales. Urban rain gardens will begin to play a greater role in street design for this area.
- 3.130 Cycle and footpath networks will connect the Village Centre to all areas of the campus.
- 3.131 Native trees and shrub species should integrate new buildings into the landscape character of the area through careful grouping,
- 3.132 The landscape should protect and enhance existing wildlife corridors.
- 3.133 The Village Centre will serve as a key transition point between the primary and secondary road strategy.

Heritage Principles

- 3.134 The existing barns provide a feature that informs the wider historical context of the site.
- 3.135 The barns and pond will be retained and enhanced, thus integrating them at the heart of the campus, integrating built form with the green infrastructure.

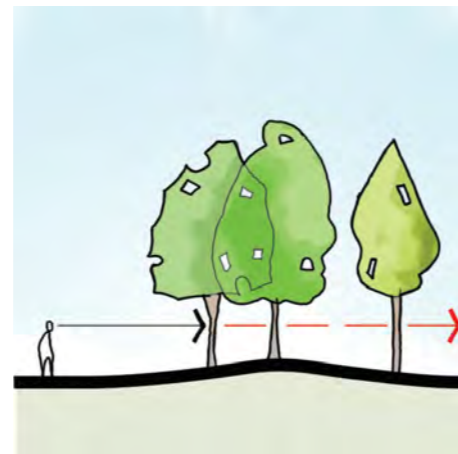


IMAGES DISPLAYING LANDMARK BUILDINGS, SOCIAL AREAS, AND GREEN INFRASTRUCTURE INTEGRATION
IMAGES ABOVE ARE INDICATIVE ONLY OF WHAT COULD BE ACHIEVED AT WELLESBOURNE CAMPUS - THEY ARE NOT REQUIREMENTS

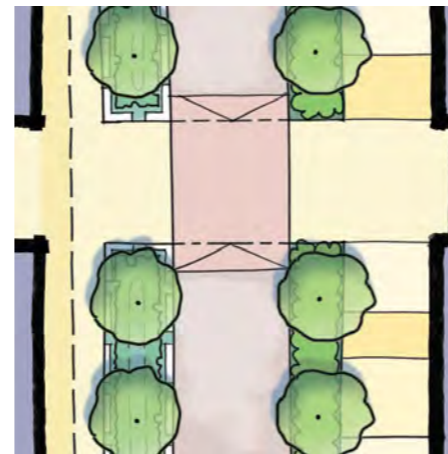
CHARACTER AREA ZONE 4 KEY LANDSCAPE COMPONENTS



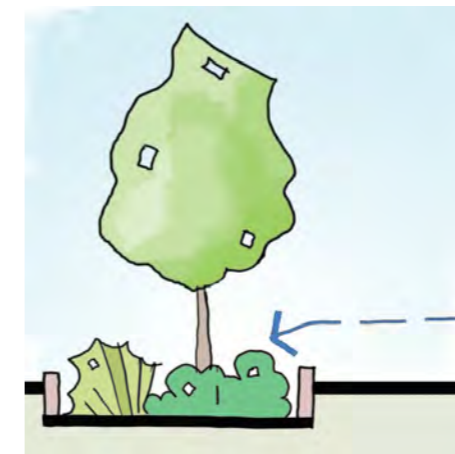
CENTRAL PLAZA SPACES TO CAMPUS HEART.



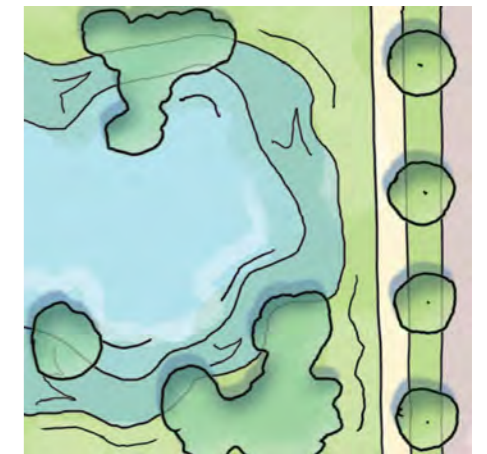
GROUPS OF CLEAR STEM PARKLAND TREES WITH VIEWS THROUGH CANOPIES.



PRIMARY STREETS, SUITABLE FOR ALL TRAFFIC. URBAN CHARACTER WITH LOW SPEEDS.



SUDS FOR STREETS TO CONSIST OF RAIN GARDENS WITHIN ROADSIDE VERGES.



ATTENUATION PONDS TO FORM AS CENTRAL FEATURES WITHIN THE CAMPUS HEART.

SUPPORTING IMAGES



IMAGES DISPLAYING OPEN, GREEN PUBLIC AND PEDESTRIAN SPACES



ZONE 4 TYPICAL STREET INDICATIVE SKETCH

CHARACTER AREA ZONE 4

Repurposed Barns

- 3.136 The existing barns represent a key heritage asset to be retained as a reflection of the true rural origins of the site and the identity of Wellesbourne Campus.
- 3.137 The repurposed barn range will work as the central gathering point for social activities on the Campus, linking south to the Village Centre (square and main boulevard) and west to the enhanced pond and green heart of the Campus and north through the enhanced green corridor.
- 3.138 Provision of a heritage information point provides public information and aid interpretation on the site historic features.



EXISTING BARN RANGE



IMAGES DISPLAYING TRADITIONAL BARNs CONVERTED TO SOCIAL MULTIPURPOSE SPACES
IMAGES ABOVE ARE INDICATIVE ONLY OF WHAT COULD BE ACHIEVED AT WELLESBOURNE CAMPUS - THEY ARE NOT REQUIREMENTS

CHARACTER AREA ZONE 5 MAIN INNOVATION CAMPUS FRONTAGE



ZONE 5

Main Innovation Campus Frontage



INDICATIVE PLAN FOR GUIDANCE ON FUTURE DEVELOPMENT WITHIN ZONE 5

Description

3.139 The character area at the Eastern most part of the campus, adjacent to the A429 which provides the main gateway into the site and opportunities for landmark innovation buildings.

Suitable Uses

3.140 Combination of research and innovation uses, in addition to centralised multi-storey car parks and a centralised waste, recycling, utilities and energy hub.

Form

3.141 Opportunity for higher density development plots.

Materials

3.142 Materials that help to create a sense of arrival to the Innovation Campus. A predominance of neutral tones, metallic and glazed facades which promote sustainability and support collaboration through providing transparent, active frontages.

3.143 For the centralised parking and services buildings, it is envisaged that these use facades that help to integrate with the built and rural environment, incorporating green vertical walls as predominant facade elements.

Building Heights

3.144 Buildings with a modern look and feel, allowing for 2 to 4 storeys along the A429 frontage with 4 storey buildings situated at the gateway to the campus.

3.145 Opportunity for landmark/feature buildings facing the new campus entrance and boulevard, so as to create an identity and gateway for the Campus, integrating with the east-west central boulevard.

Transition

3.146 Ensure a natural transition into green infrastructure where buildings are adjacent to provide a sense of openness.

Ecology Principles

3.147 Incorporation of Sustainable Drainage Systems (SuDS) of a natural quality in each plot for water attenuation flood mitigation and to benefit biodiversity.

3.148 Existing woodland blocks to be retained.

3.149 Incorporation of green/sedum roofs as part of the landscape and biodiversity net gain strategies.

Additional Features

3.150 Centralised multi-storey car parks to be located on the eastern edge of the site, as part of the wider campus strategy for efficient and flexible transport and movement.

3.151 Centralised waste, recycling, utilities and energy hub to be located on the eastern edge of the site.

Landscape Principles

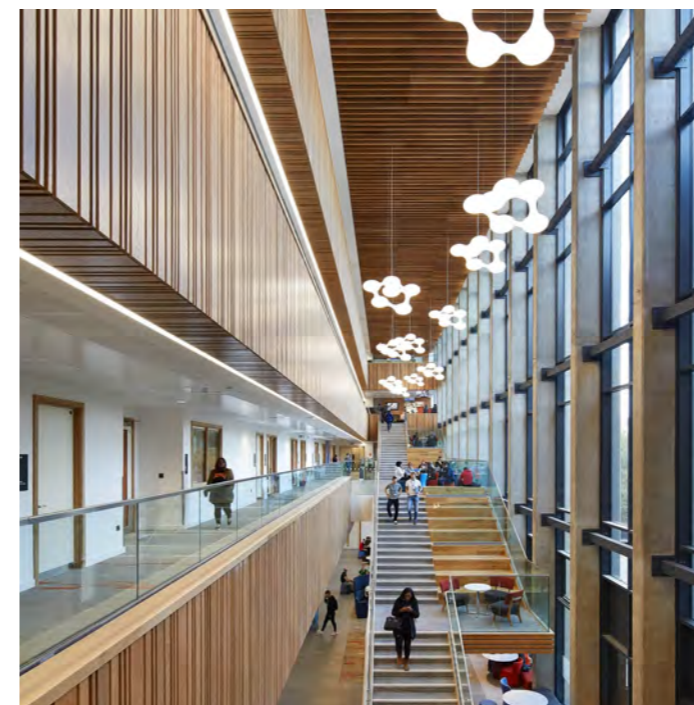
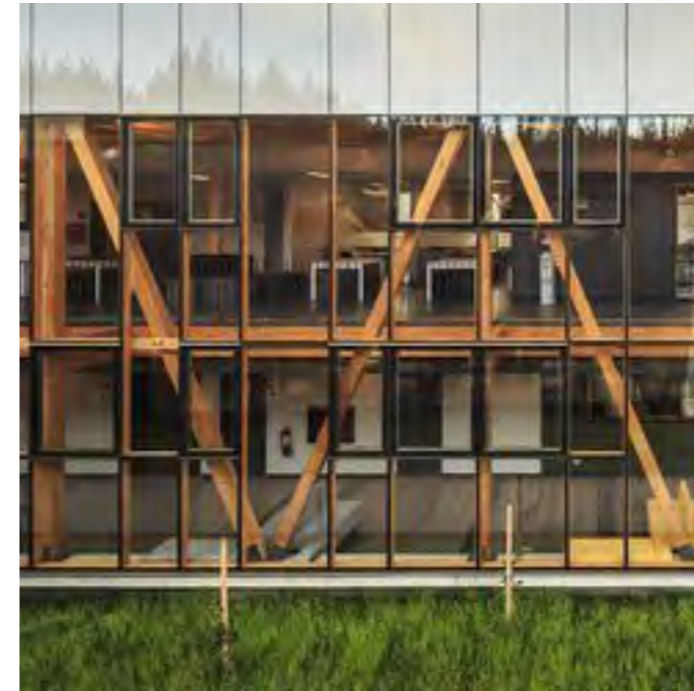
3.152 10-15 metre deep native screening buffer to be created along Eastern boundary of the site to enhance existing hedge boundary. This will provide softening to the development blocks visible along the A429.

3.153 The reduced visible sensitivity of this Character area helps to justify taller, higher density development along the A429 (between 2 and 4 storeys) although this should still respond to its rural context.

3.154 Multi-storey car parking facilities are proposed for this location. The introduction of landscape features into the design of these buildings, such as facade greening and biodiverse roof systems, will be encouraged to provide softening to these.

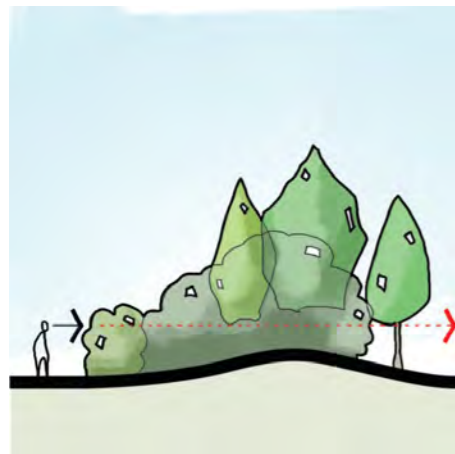
CHARACTER AREA ZONE 5

- 3.155 Similar to the Central and Southern Innovation Campuses, the landscape is to be more urban in character and designed to create spaces for encouraging community engagement and collaboration between the occupants of the campus.
- 3.156 SuDs will take the form of urban rain gardens, clusters of dense greenery to take in water runoff, and water features throughout this area of the masterplan (shown in the supporting images on following page).
- 3.157 Use of formal avenue trees to line primary and secondary roads, with specimen parkland trees within campus greens and lawn areas. Wet woodland areas will be confined to the southern edge of the site along the brook.
- 3.158 Streets are to be primary roads throughout Zone 5, with road space suitable for all vehicle traffic and segregated space for pedestrians and cyclists.
- 3.159 Sensitive use of lighting to mitigate the impacts of light spillage.

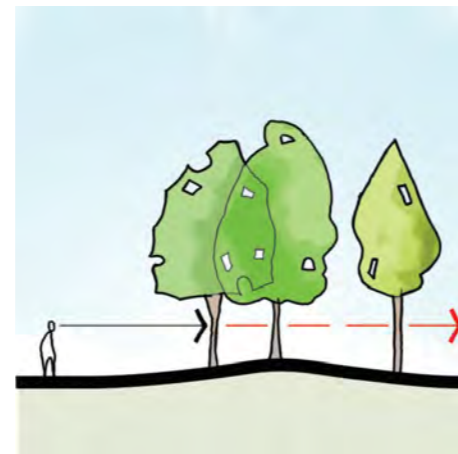


IMAGES DISPLAYING MODERN FACADES, A MATERIAL PALETTE CONSISTING PRIMARILY OF WOOD, GLASS, METAL, AND INTEGRATED GREENERY
IMAGES ABOVE ARE INDICATIVE ONLY OF WHAT COULD BE ACHIEVED AT WELLESBOURNE CAMPUS - THEY ARE NOT REQUIREMENTS

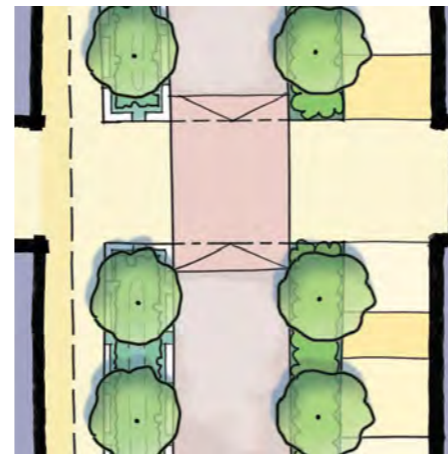
CHARACTER AREA ZONE 5 KEY LANDSCAPE COMPONENTS



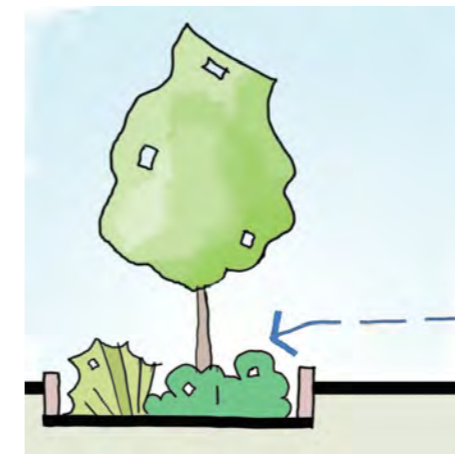
BOUNDARY PLANTING TO PROVIDE IMPERMEABLE SCREENING ALONG THE EASTERN BOUNDARY.



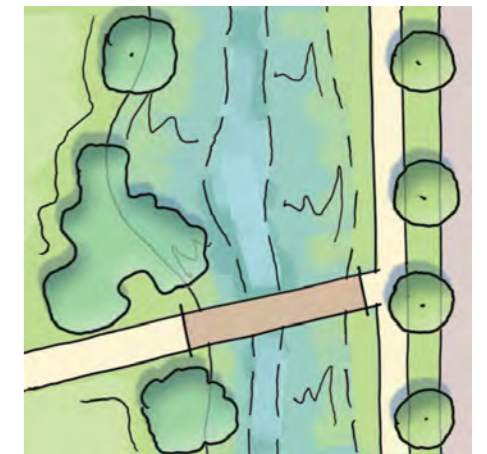
GROUPS OF CLEAR STEM PARKLAND TREES WITH VIEWS THROUGH CANOPIES.



PRIMARY STREETS, SUITABLE FOR ALL TRAFFIC. URBAN CHARACTER WITH LOW SPEEDS.

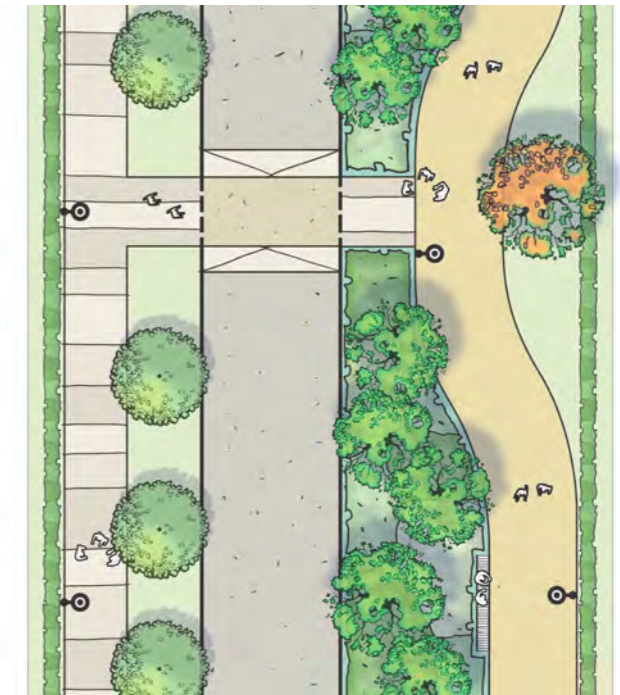
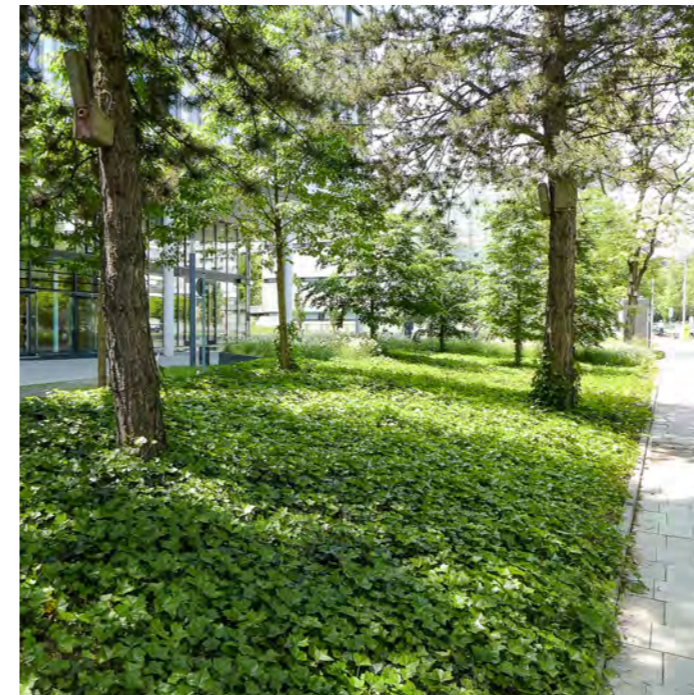


SUDS FOR STREETS TO CONSIST OF RAIN GARDENS WITHIN ROADSIDE VERGES.



SUDS TO BE LARGE LINEAR EXPANSES OF NATURALISTIC DRY ATTENUATION AREAS.

SUPPORTING IMAGES



IMAGES DISPLAYING PUBLIC SPACE, AND DENSE GREENERY AND WILDLIFE

ZONE 5 TYPICAL STREET INDICATIVE SKETCH

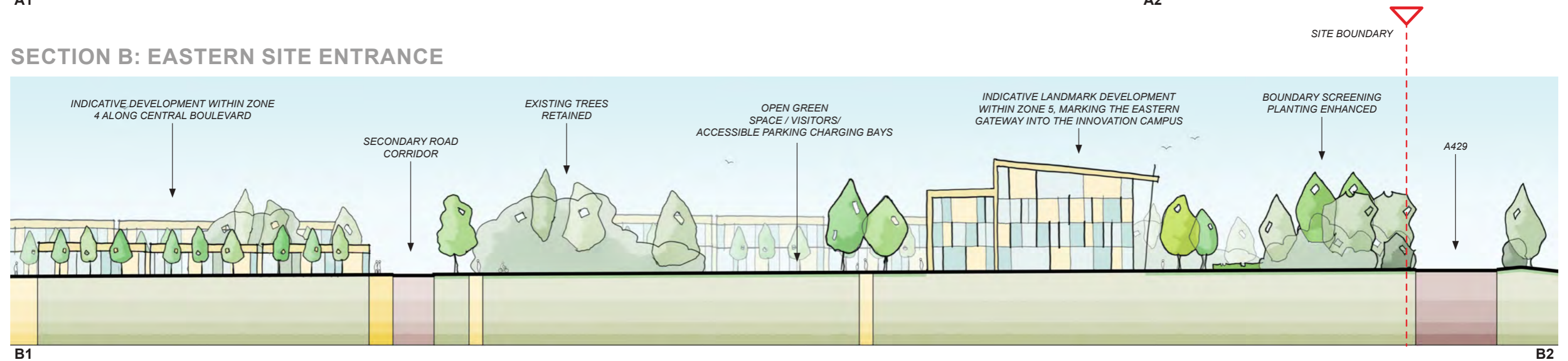


INDICATIVE MASTERPLAN LANDSCAPE SECTIONS

SECTION A: NORTHERN SITE BOUNDARY



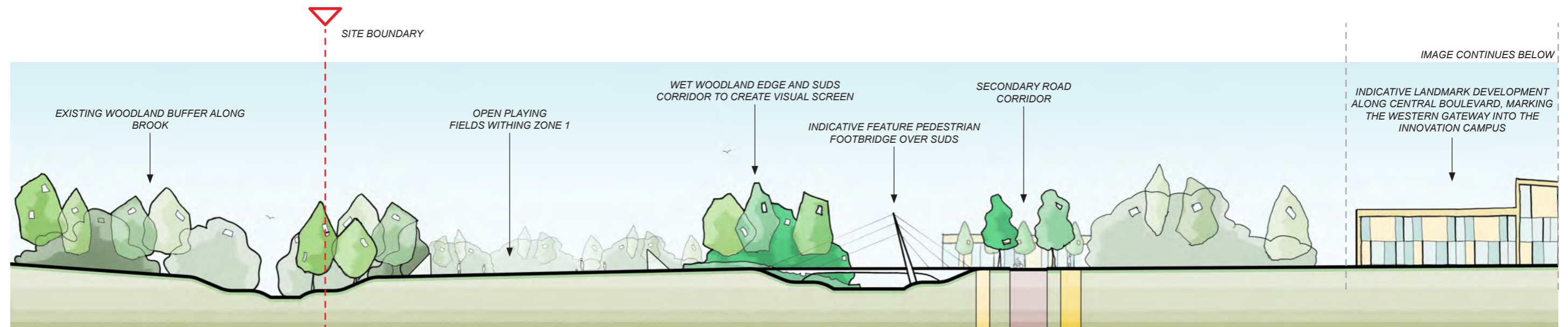
SECTION B: EASTERN SITE ENTRANCE



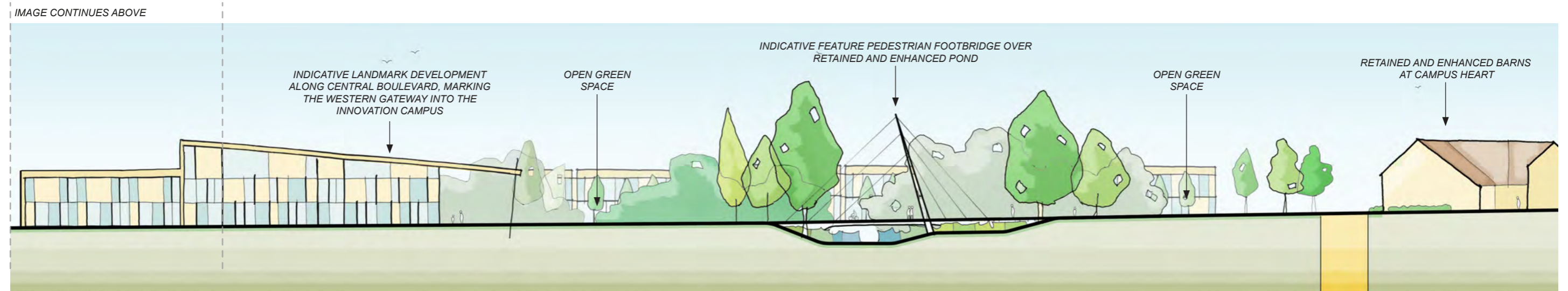


INDICATIVE MASTERPLAN LANDSCAPE SECTIONS

SECTION C: WESTERN SITE ENTRANCE AND VIEW TOWARDS RETAINED BARNES



C1

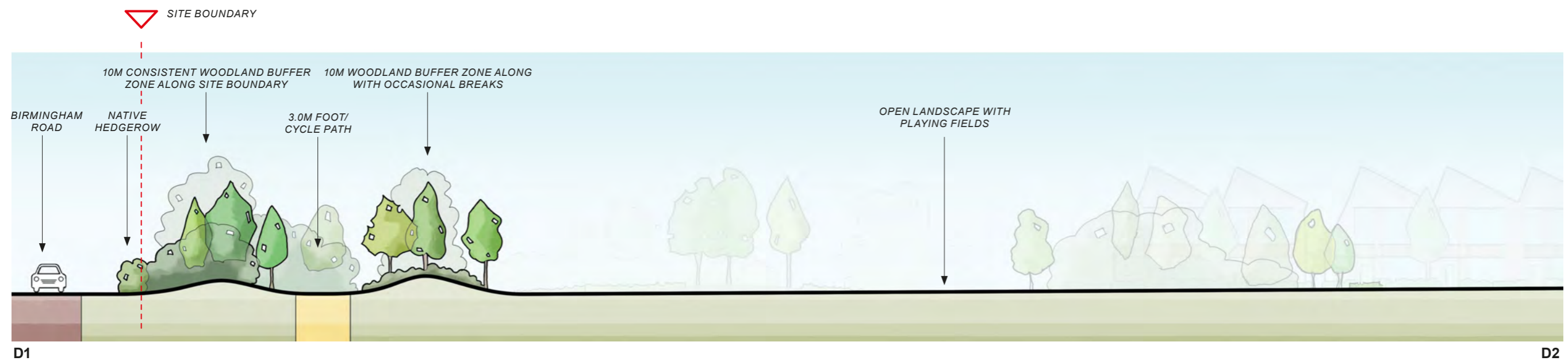


C2

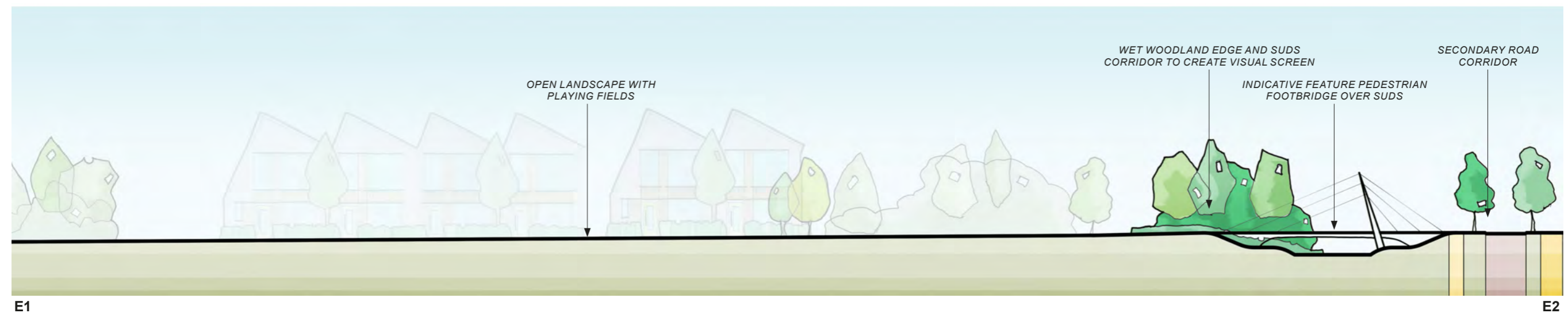


INDICATIVE MASTERPLAN LANDSCAPE SECTIONS

SECTION D: WESTERN SITE ENTRANCE AND VIEW TOWARDS SPORTS PITCHES



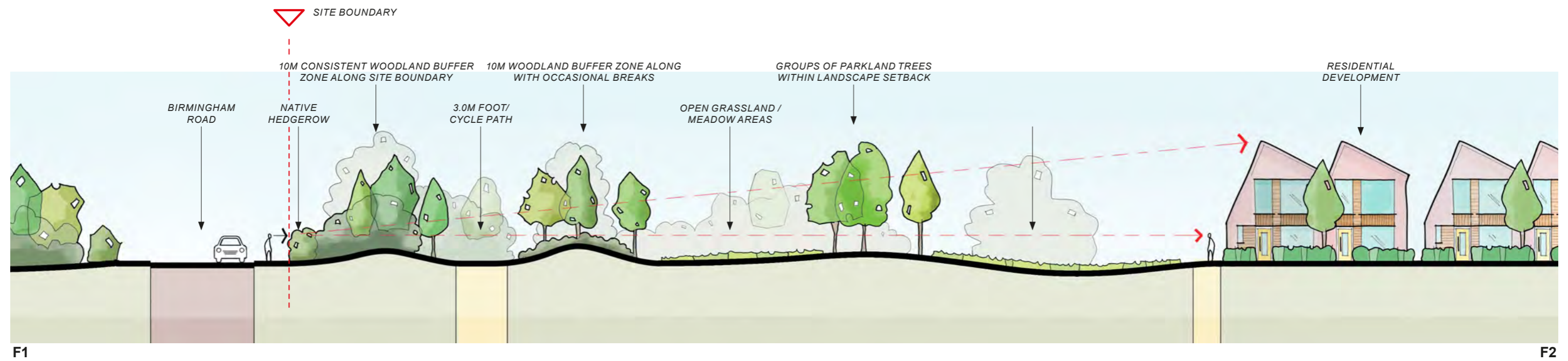
SECTION E: WESTERN SITE ENTRANCE AND VIEW TOWARDS SPORTS PITCHES





INDICATIVE MASTERPLAN LANDSCAPE SECTIONS

SECTION F: WESTERN VIEW TOWARDS ACCOMMODATION



ECOLOGY STRATEGY

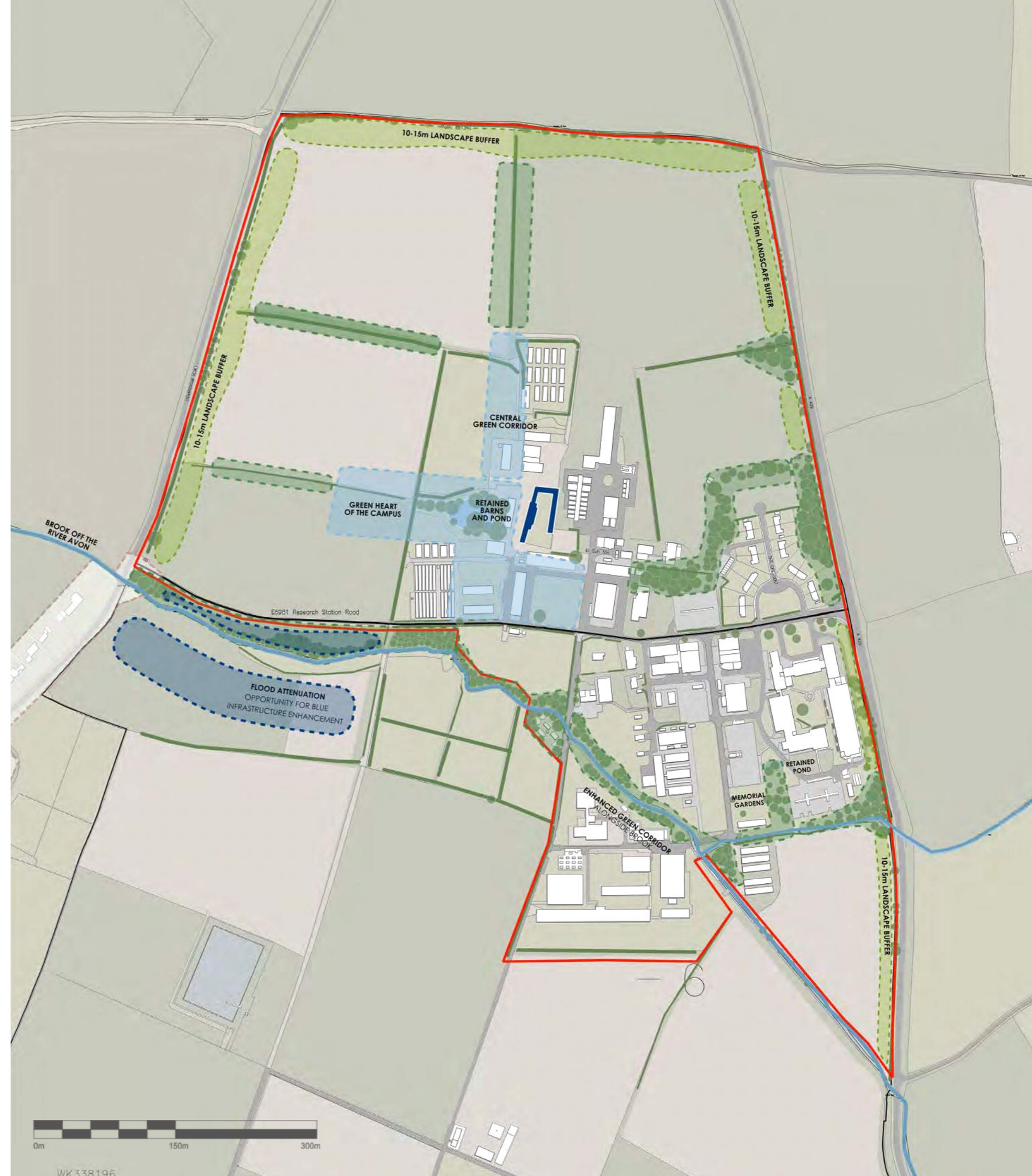
- 3.160 Given the rural and agricultural character of the site, the inclusion of a range of measures to retain, protect and enhance features of ecological value is a key driver of the framework masterplan.
- 3.161 This includes implementation of a 10 - 15m ecological barrier along the boundaries of the masterplan area, a green corridor running from north to south through the centre of the site, connecting the brook to the open countryside to the north.
- 3.162 In addition, a summary of further ecological measures and features which should be included within the masterplan are provided on page 49-50

KEY

-  Landscape Buffer
-  Key Retained / Enhanced Landscape Features
-  New / Enhanced Landscape Features
-  Flood Attenuation Features
-  Key Retained Assets
-  Site Boundary



ECOLOGY STRATEGY DIAGRAM



Existing Features of Ecological Value

- 3.163 The main pond, adjacent to the barn, is known to support a population of great crested newt. Measures to protect and enhance the site for great crested newt will be incorporated.
- 3.164 Part of the site is locally designated as an 'Ecosite' for great crested newt, wetland habitats and interesting arable flora.

Mitigation Measures

- 3.165 The existing trees and majority of hedgerows are to be retained, with compensatory native species-rich hedgerow planting undertaken to compensate for any losses. This will also ensure that footpaths utilise appropriate low-level lighting.
- 3.166 A sensitive lighting strategy will be implemented including maintaining dark corridors across the brook corridor, landscape buffers, retained hedgerows and woodland, and the ponds. Amphibian tunnels will be installed under roads to allow continued dispersal of great crested newt and other species, to prevent roads becoming a barrier to movement.
- 3.167 'Hedgehog Highways' will be created in all new close board fencing and boundary walls to allow continued movement across the site for hedgehog.

Creating Habitats of Biodiversity Value

- 3.168 The planting strategy adopted will utilise a range of native and wildlife friendly species.
- 3.169 The landscaping scheme, including a green corridor through the centre and landscape buffers at the peripheries, will result in the creation of a range of habitats of biodiversity value.
- 3.170 New SuDS features of a natural quality will be created throughout, to create a network of ponds to provide new wetland habitat suitable to benefit a range of species including great crested newt.

Enhancement Features

- 3.171 Bat and bird boxes will be installed into newly constructed buildings and on retained mature trees throughout the site to provide enhanced roosting and nesting opportunities.
- 3.172 Hedgehog boxes will be installed throughout the site, as well as bug hotels in areas of naturalistic planting to provide habitats for invertebrates.
- 3.173 Hibernacula will be created throughout the site to provide hibernation opportunities for amphibians and reptiles, and brash and log piles will be created from any removed vegetation.



BAT BOX, BIRD BOX AND HEDGEHOG HIGHWAY, BUG HOTEL AS ECOLOGY ENHANCEMENT FEATURES
IMAGES ABOVE ARE INDICATIVE ONLY OF WHAT COULD BE ACHIEVED AT WELLESBOURNE CAMPUS - THEY ARE NOT REQUIREMENTS

Further Surveys

- 3.174 Any future planning applications for development within the masterplan area will need to be supported by the applicable protected species surveys. Survey requirements will depend on the area the application(s) relate to and the nature of the proposals, but could include surveys for great crested newt, badger, bats, breeding birds, wintering birds, otter and water vole, and reptiles.
- 3.175 To inform planning applications which could affect the Ecosite, vegetation surveys with a focus on arable flora will be undertaken to allow appropriate mitigation to be incorporated into detailed proposals.

Biodiversity Net Gain

- 3.176 There is the opportunity for the development of the new Wellesbourne Campus to result in significant gains for biodiversity. To inform the masterplan, a Biodiversity Net Gain (BNG) Feasibility Assessment has been undertaken by specialist ecological consultants. The purpose of this assessment was to identify whether it would be possible for the development of the new campus to result in measurable net gains for biodiversity.
- 3.177 The assessment entailed a comparison of the pre-existing baseline of the site with a high-level post-development scenario. The post-development scenario was based on an indicative landscape masterplan and assumptions relating to habitat creation. It involved splitting habitats into three categories: area-based (such as grassland or woodland), linear (such as hedgerows), and rivers (such as streams).
- 3.178 The results of the assessment show that the development of the new campus could result in an approximate 25% net gain in area-based habitats and an approximate 18% net gain in linear habitats. An assessment in relation to river habitats was not undertaken at this stage due to the current high-level nature of the proposals, but enhancements to the stream should be incorporated into the proposals to ensure a net gain in river habitats is also achieved.

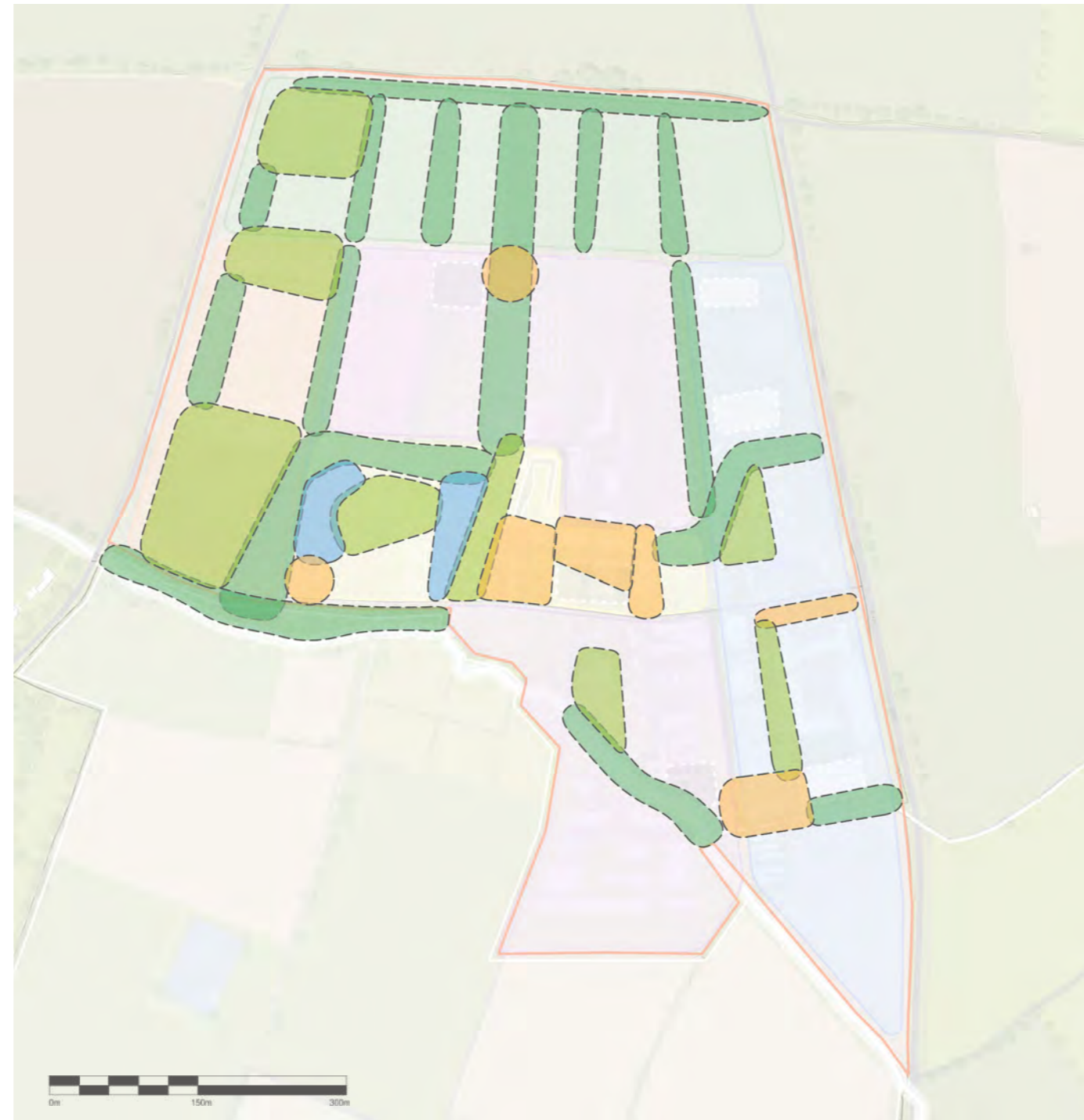


AMPHIBIAN TUNNEL, HIBERNACULA BRASH PILE, AND NATURAL SUDS AS ECOLOGY ENHANCEMENT FEATURES
IMAGES ABOVE ARE INDICATIVE ONLY OF WHAT COULD BE ACHIEVED AT WELLESBOURNE CAMPUS - THEY ARE NOT REQUIREMENTS

OPEN SPACE STRATEGY

3.179 A wealth of high quality, interconnected and multi-faceted open spaces is an essential component of the overall green infrastructure strategy for the Wellesbourne campus. The plan (right) presents the emerging strategy and consists of the following key elements:

- **Campus plazas:** Community and amenity focused public open spaces will comprise of a mix of both hard and soft landscape elements. The focus of these spaces is to foster a community driven culture and facilitate the social and collaborative ethos of the campus.
- **Campus greens:** The Greens also aim to provide social and communal amenity with a focus on both passive and active recreation. Spaces formality will vary, but primarily consist of open grassland and lawn areas, with occasional native parkland trees.
- **Water spaces:** Sustainable water management will be essential for the wider masterplan. There is an opportunity to create an integrated network of attenuation spaces across the green corridors. These will feed into permanent water spaces, which will serve as attractive place-making features, spaces for flood attenuation and wildlife.
- **Green corridors:** The primary role of the green corridors will be to aid with connectivity. These linear spaces will facilitate the movement of people, water and wildlife, and will combine a mix of woodland, amenity space and attenuation areas.



OPEN SPACE STRATEGIC PLAN



- 1. CAMPUS PLAZAS:**
 - FORMAL, URBAN CHARACTER,
 - A MIX OF HARD AND SOFT PLAZA AREAS
 - MIXED USE / EVENTS SPACES

- 2. CAMPUS GREENS:**
 - OPEN AREAS FOR PASSIVE / ACTIVE RECREATION
 - MIX OF FORMAL AND INFORMAL AS SUITABLE FOR CHARACTER AREA

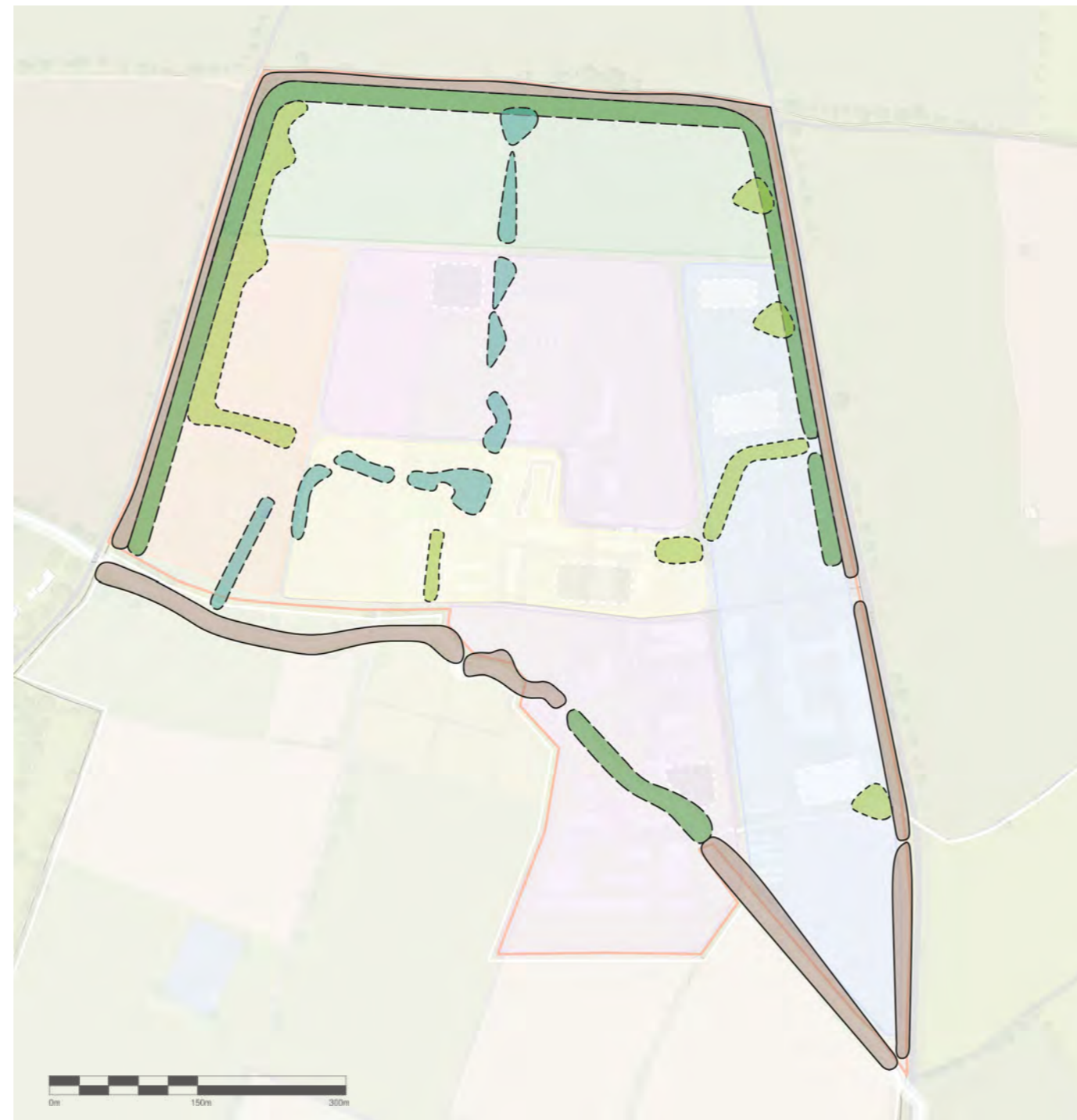
- 3. WATER SPACES:**
 - PERMANENT WATER BODIES
 - TO SERVE AS ATTRACTIVE FOCAL POINTS
 - SPACES FOR WILDLIFE, AND SUDS

- 4. GREEN CORRIDORS:**
 - LINEAR SPACES FOR SUPPORTING MOVEMENT OF PEOPLE, WATER AND WILDLIFE. MIX OF FORMAL AND INFORMAL

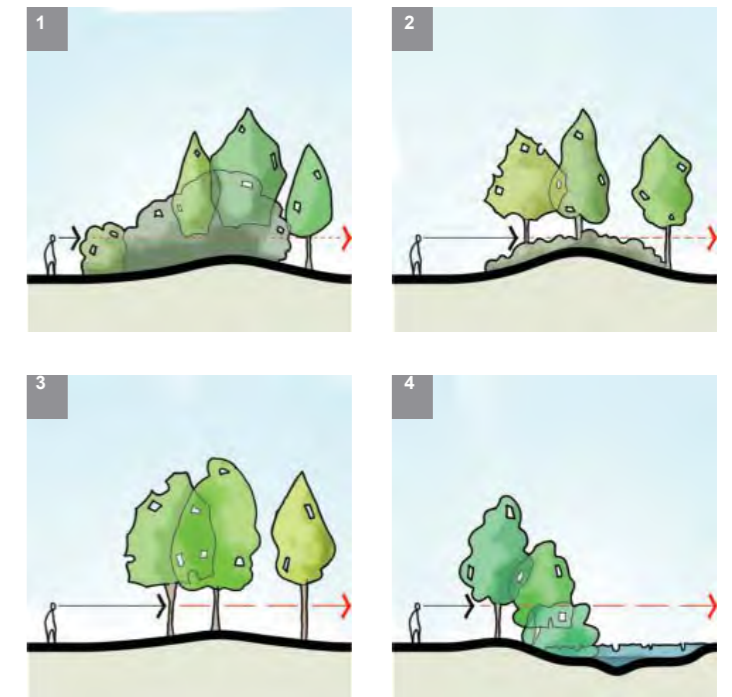
WOODLAND & SCREENING STRATEGY

3.180 It is important that the landscape strategy responds to the sensitivity of views of the site from the surrounding areas most critically the Charlecote and Hampton Lucy conservation area. The following woodland and screening strategy is proposed to mitigate this:

- Impermeable woodland screening: This type of screening will be prioritised for the most sensitive views to provide substantial screening of development. A mix of existing retained vegetation, hedgerows and native woodland will be combined with level changes to establish these screening buffers.
- Semi-permeable woodland screening: Similar in character to the impermeable woodland screens, this will combine dense native woodland and level changes. Occasional breaks in canopy will allow for occasional glimpse views through buffers.
- Groups of parkland trees: Consisting of clear stem native trees and prominent specimen parkland trees, this woodland type will be used more centrally in the campus to frame and terminate views.
- Wet woodland: This type of planting will consist of species suitable for flood prone areas. Density of planting will vary dependant on location to provide screening or frame views.
- Where viable and practicable, early implementation of this landscaping strategy may take place in the most sensitive areas of the site.



WOODLAND SCREENING STRATEGIC PLAN

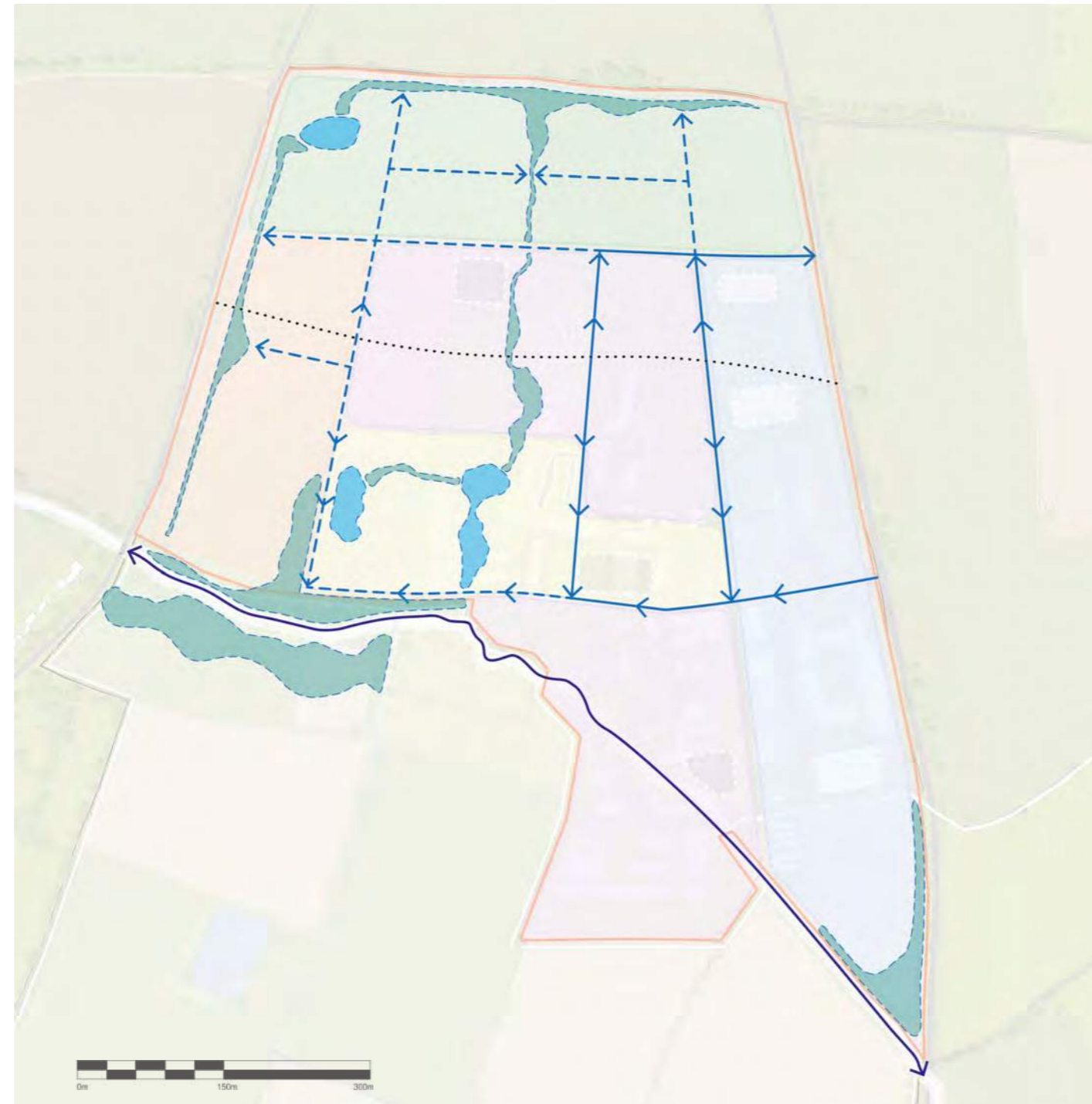


- 1. IMPERMEABLE WOODLAND SCREENING:
 - PROPOSED AND EXISTING NATIVE SPECIES TYPICAL OF LANDSCAPE LOCAL CHARACTER
 - PROVIDES COMPLETE YEAR-ROUND SCREENING
- 2. SEMI PERMEABLE WOODLAND SCREENING:
 - DENSE CLUSTERS OF NATIVE SPECIES WITH OCCASIONAL BREAKS TO PROVIDE PARTIAL VISIBILITY
- 3. GROUPS OF PARKLAND TREES:
 - SCATTERED GROUPS OF NATIVE AND NON-NATIVE PARKLAND TREES
 - CLEAR STEM TO ALLOW VIEWS BENEATH
- 4. WET WOODLAND:
 - WATER TOLERANT WOODLAND SPECIES FOR SUDS CORRIDORS
 - CAN VARY IN DENSITY AS APPROPRIATE

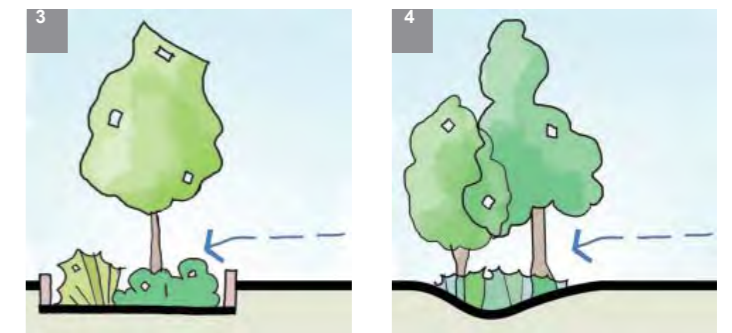
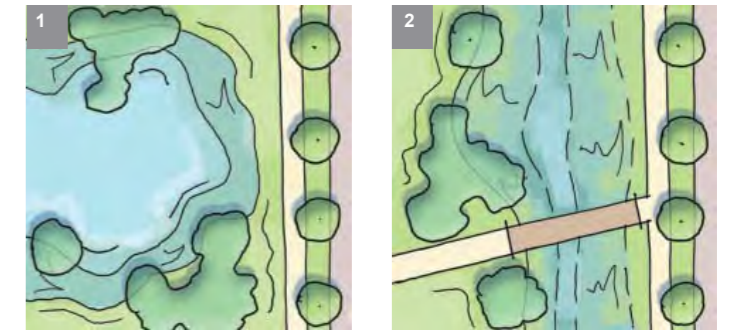
LANDSCAPE DRAINAGE STRATEGY

3.181 The role of water management is central to the landscape strategy. Responding to flood risk, minimising reliance on grey infrastructure and using water as a place-making, amenity and wildlife asset are all central to the green infrastructure strategy. The plan (right) illustrates the following key elements:

- Permanent water bodies: These will serve as lined attenuation ponds with permanent water and capacity as attenuation space during periods of flooding. These will also serve as amenity and place-making features at key locations within parkland areas.
- Drainage corridors: These will be a combination of dry and wet linear channels with reed beds, wet woodland and wet grasses. These will be a significant contribution as ecological corridors and spaces for wildlife.
- Rain gardens: Located to the sides of roads within Zones 3, 4 and 5 of the campus, these will provide urban drainage channels to street spaces, accompanied by amenity planting and street trees.
- Dry swales: Located to the sides of roads within Zones 1, 2 and 3, these will consist of dry depressions within streetside verges. Biodiverse grasses and street trees will typically be planted within swales.



DRAINAGE STRATEGIC PLAN



- 1. PERMANENT WATER BODIES:**
 - ATTRACTIVE WATER FEATURES TO PROVIDE A CENTRAL FOCAL POINT FOR GREEN SPACES
 - LINED ATTENUATION BASINS
- 2. DRAINAGE CORRIDORS:**
 - COMBINATION OF DRY AND WET LINEAR CHANNELS AND EXPANSIVE DRAINAGE AREAS
 - REEDBEDS, WET WOODLANDS AND GRASSES
- 3. RAIN GARDENS WITHIN STREET VERGES:**
 - URBAN CHARACTER, LINEAR SUDS TO STREET SPACES ALONG PRIMARY ROADS
 - SUITABLE FOR HARD LANDSCAPE CHARACTER
- 4. DRY SWALES WITHIN STREET VERGES:**
 - SUBURBAN/RURAL CHARACTER, LINEAR SUDS TO STREET SPACES ALONG SECONDARY ROADS
 - DRY SOFT VERGES WITH SLOPED DEPRESSIONS

SUSTAINABLE DRAINAGE

- 3.182 All proposed drainage systems will be designed with Sustainable Urban Drainage (SuDs) techniques to improve water quality and reduce peak flow rates associated with the development. Other than the immediate areas adjacent to the River Dene and the brook within the site, the majority of the Campus is within Flood Zone 1 and would not be affected by fluvial flooding.
- 3.183 The topographical profile of the Campus features localised depressions which act as natural sub-catchment areas. These could be developed as ecological features and enlarged allowing them to be utilised as swales/ ponds.
- 3.184 Proposals will be designed to regulate and control the current unrestricted discharge to existing water features to minimise the risk of flooding. With a positive surface water management regime, the Campus can be more confident that any new development will remain safe from flooding and further mitigate the risk of flooding downstream.

FLOOD RISK MITIGATION STRATEGY

Drainage Strategy

- 3.185 The proposed drainage layout will be sympathetic to the site's established existing surface water flow paths and features and will seek to utilise the existing low-lying areas and conveyance pathways.
- 3.186 All surface water flows shall be accommodated on-site reducing discharge to existing greenfield rates. Individual development areas will be required to accommodate the surface water from their own sub-catchment areas. The type of SuDs installation chosen will be appropriate to the features of the catchment area in relation to its immediate landscape, ecology, biodiversity and amenity. The drainage feature will be installed as close to the surface as feasible.
- 3.187 All drainage infrastructure/design shall take into account the impact of climate change on the installations. Any excess flows that cannot be contained must be routed via flood conveyance routes. All drainage features shall have the capacity to cope with excess flows so that they do not result in flooding elsewhere. Due to the topography of the site it cannot be drained in its entirety to the central brook. The watercourse on the Northern Boundary will also be a retained drainage feature and enhanced through further mitigation. SuDs techniques required for an individual sub-catchment area may differ in order to adapt to any changes in the geology or drainage pathways.



IMAGES DISPLAYING NATURAL GREEN SPACE AND BODIES OF WATER AS SUSTAINABLE DRAINAGE SYSTEMS
IMAGES ABOVE ARE INDICATIVE ONLY OF WHAT COULD BE ACHIEVED AT WELLESBOURNE CAMPUS - THEY ARE NOT REQUIREMENTS

Design Criteria

- 3.188 Peak Flow - The peak surface water runoff rate from the development to any highway drain, sewer or surface water body for the 1 in 1 year rainfall event and the 1 in 100year rainfall event should never exceed the peak greenfield runoff rate for the same event.
- 3.189 Volume Control - The maximum surface water runoff volume from the development to any highway drain, sewer or surface water body in the 1 in 100year, six hour rainfall event should never exceed the greenfield runoff volume for the same event.

Risk of Flooding on site

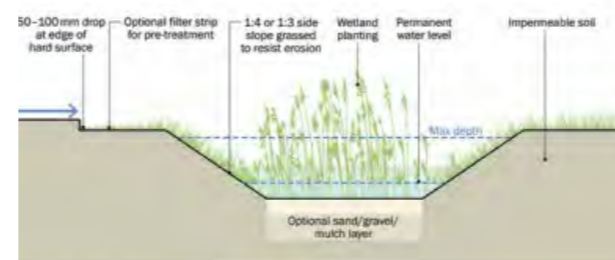
- 3.190 The drainage system must be designed so that; flooding does not occur on any part of the site for a 1 in 30 year rainfall event and flooding does not occur during a 1 in 100 year rainfall event in any utility
- 3.191 plant susceptible to water (e.g. pumping station or electricity substation). The design of the site must ensure that flows resulting from rainfall in excess of a 1 in 100 year rainfall event are managed in exceedance routes that minimise the risks to people and property.

SuDs Features and Installations

- 3.192 The form and size of the SuDs features that may be installed will vary to accord with the type of ground and the groundwater conditions that are found across the site. The figures adjacent show typical examples of a number of SuDs features that are considered to be best suited for the site.



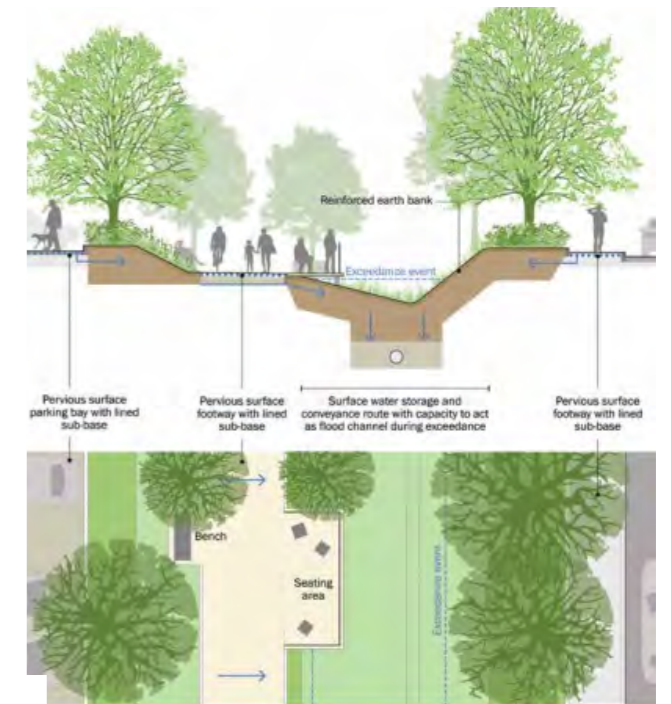
PLAN AND ELEVATION OF VEGETATED DETENTION BASIN



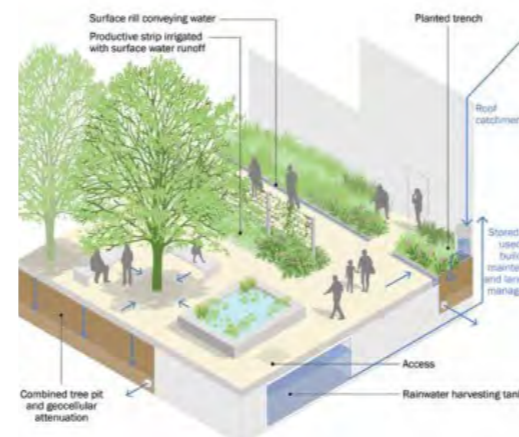
TYPICAL WET SWALE



WATER FLOWS FROM SHALLOW SWALES ACTING AS EDGE DRAINS FOR THE ROAD SUB-BASE



TYPOLOGY 9 - GREENWAY



COMMUNAL SPACE USING RUNOFF AS A RESOURCE



MULTI-FUNCTIONAL CIVIL SPACE

IMAGES ABOVE ARE INDICATIVE ONLY OF WHAT COULD BE ACHIEVED AT WELLESBOURNE CAMPUS - THEY ARE NOT REQUIREMENTS

CONNECTIVITY AND SUSTAINABLE TRANSPORT

Overview

- 3.193 In line with National Design Guide (2) and Stratford-on-Avon District Core Strategy Policy CS.2 'Climate Change and Sustainable Construction' principles, the key sustainable transport and movement principles for the masterplan site form an approach which seeks to reduce the need to travel in the first instance and to provide transport infrastructure which encourages travel by non-car modes.
- 3.194 An integrated approach to masterplanning and placemaking is critical to creating a successful and sustainable development which delivers jobs and services close to where people live, provides a strong sense of community and collaboration, and, in conjunction with improved public transport links and active travel infrastructure, minimises the number of trips made by car.
- 3.195 The strategy will work towards a flexible approach so that the campus can adapt to innovation in CAV (Connected and Autonomous Vehicles) – and to SDC's future transport strategy.

Active Travel Strategy

- 3.196 Building on the University's excellent track record at its Main Campus, development of the Wellesbourne Campus will prioritise access to nearby destinations including Stratford-Upon-Avon, Warwick, Coventry, and Birmingham by active travel and it will positively embrace and provide for new and emerging technologies such as shared micromobility solutions (e-bikes, e-scooters) which will help to reduce vehicles trips through the Campus.
- 3.197 The Masterplan will look to provide high-quality walking and cycling infrastructure to support the delivery of improvements to active travel infrastructure external to the masterplan site area, in particular to Wellesbourne. The Masterplan integrates PRow SD131a along the northern boundary and will enhance the connection to West Gate through the east-west boulevard.
- 3.198 A network of low-speed streets within the campus will create a welcoming environment that promotes walking and cycling. Pedestrian and cycle routes will be designed in accordance with the Government's 'Local Transport Note 1/20 – Cycle Infrastructure Design' (LTN 1/20). They will be well lit in a manner that is appropriate to its rural context, hard surfaced and well-drained so that they are usable at all times and seasons. Proposals will accord with Policy 5 of the Transport Strategy.
- 3.199 Ample, well-located, secure cycle parking at key destinations, alongside supporting facilities such as showers, lockers and drying rooms will ensure cycling is a viable mode choice to travel to the campus.

(2) NATIONAL DESIGN GUIDE: PLANNING PRACTICE GUIDANCE FOR BEAUTIFUL, ENDURING AND SUCCESSFUL PLACES. MINISTRY OF HOUSING, COMMUNITIES AND LOCAL GOVERNMENT (OCTOBER 2019)

Public Transport Strategy

- 3.200 Responding to the requirement of Policy LUT3 'Sustainable Development' of the Warwickshire Local Transport Plan 2011-2026 (3), development of the site will provide significant investment in public transport improvements to support modal shift away from private car travel as the dominant and recurring mode of choice.
- 3.201 The University has good working relationships with local bus operators and will work with operators to deliver improved bus services for the Campus, with a preference for zero carbon buses. Bus services will stop either within the Campus itself, along the A429 or via Birmingham Road (served by existing bus services).
- 3.202 Building on the established West Midlands Bus On Demand service, there is potential for additional Demand Responsive Transport (DRT) which provides a flexible service that provides shared transport to the campus, although these would need to be of sufficient capacity to accommodate the number of jobs that will be created on campus. Flexible DRT services could bolster bus provision in the longer term to meet unmet demand for journeys to destinations not served by fixed routes.

Logistics and Servicing Strategy

- 3.203 The street design would not preclude limited access by large vehicles, including emergency vehicles, but this will be the exception rather than the norm.

Mobility Hubs

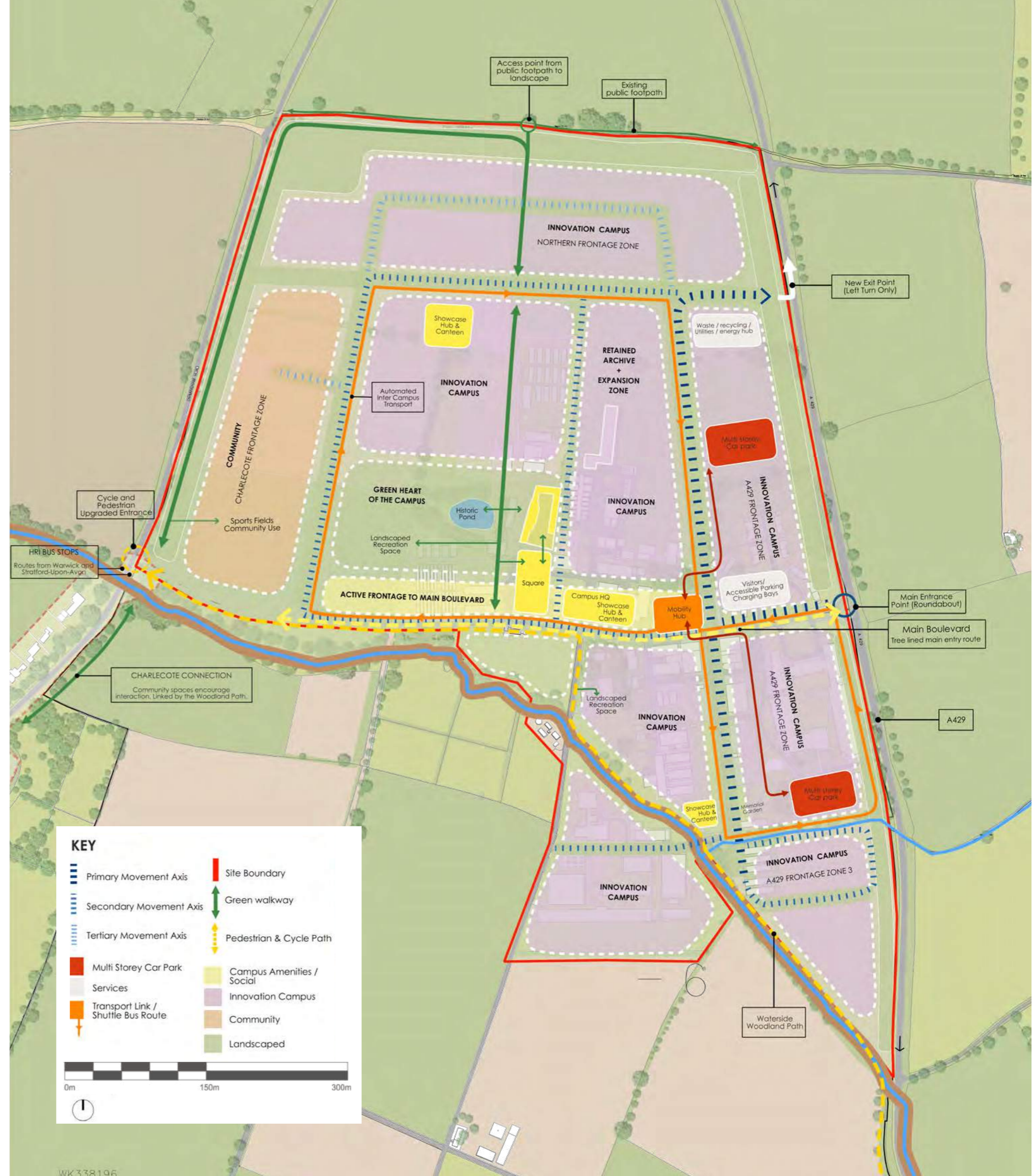
- 3.204 Mobility hubs will provide interchange and integration for existing and new modes such as bus facilities or e-scooter/e-bike hire, together with community functions (such as parcel lockers) and real-time information on bus and rail services.
- 3.205 Given the size of the masterplan site, a central mobility hub would be formed around a bus interchange, drop-off/pick-up area and shared transport (car club, e-bikes, etc.) parking/charging. Smaller mobility hubs will be dispersed around the site to provide areas in which to charge e-bikes or e-scooters.

(3) WARWICKSHIRE COUNTY COUNCIL, WARWICKSHIRE LOCAL TRANSPORT PLAN 2011 - 2026, ACCESSIBLE: [HTTPS://API.WARWICKSHIRE.GOV.UK/DOCUMENTS/WCCC-630-116](https://api.warwickshire.gov.uk/Documents/WCCC-630-116)

Restraint Based Car Parking Strategy

- 3.206 Parking provision will be provided in accordance with the requirements at Part O 'Parking and Travel' and Part R 'Air Quality' of SDC's Development Requirements masterplan (2020).
- 3.207 An important strength of the site is its access to the strategic road network, which is attractive to current and prospective occupiers. Whilst the vehicle fleet continues its transition to electrification over the coming years, electric vehicles will continue to have a significant capacity impact on the capacities of local and strategic road networks; which needs to be mitigated.
- 3.208 The Masterplan takes a flexible approach, future-proofed to adapt to expected changes in car usage and ownership. Demand for parking could reduce significantly over the coming decades and parking provision across the masterplan site will be designed to be readily converted to other uses easily.
- 3.209 Accommodating car parking in a series of Multi-storey car parks (MSCPs) that will be shared by multiple occupiers provides flexibility as these could be converted to active land uses or open space as demand for parking reduces over time.
- 3.210 Several MSCPs located along the eastern part of the masterplan site will remove the need for vehicles to pass through the heart of the site, ensuring a network of people-friendly internal streets. Limited accessible parking for staff and visitors would be located across the site to help those with mobility impairments. Parking for residents in the campus accommodation to the West would be separate to those of the non-residential uses, located near to the accommodation.

MOVEMENT STRATEGY DIAGRAM



Zero Carbon

- 3.211 Measures to reduce reliance on cars and work towards a net zero carbon development will include:
- Parking charges or permit system to regulate residential and commercial parking.
 - Electric vehicle charging provision for all households and commercial parking. Current policy requires 5% of non-residential spaces provide 7kW EV charging from the outset and a further 5% spaces provide with passive provision to be activated in the future. Within the MSCPs, at least one rapid charging point (43kW/50kW) will be provided.
 - Electric pool cars and car club vehicles will be sited across the site for use by residents and for employees.
 - Coordinated measures to support car sharing across different occupiers of the Campus.

Vehicle Access

- 3.212 In order to facilitate the expected increase in vehicle trips to the site and to enhance the sense of arrival, the main access from the A429 will be upgraded to form a three-arm roundabout.
- 3.213 In addition to upgrades to the main entrance, in order to provide additional flexibility and reduce vehicle movements through the core of the masterplan site, a new left-out only vehicle exit point will be created further north than the existing main vehicular access point on the A429.
- 3.214 West Gate will be solely for pedestrian and cycle access and South Gate would remain in use only for very limited vehicular access to the existing Campus, primarily for agricultural vehicles per existing arrangements.

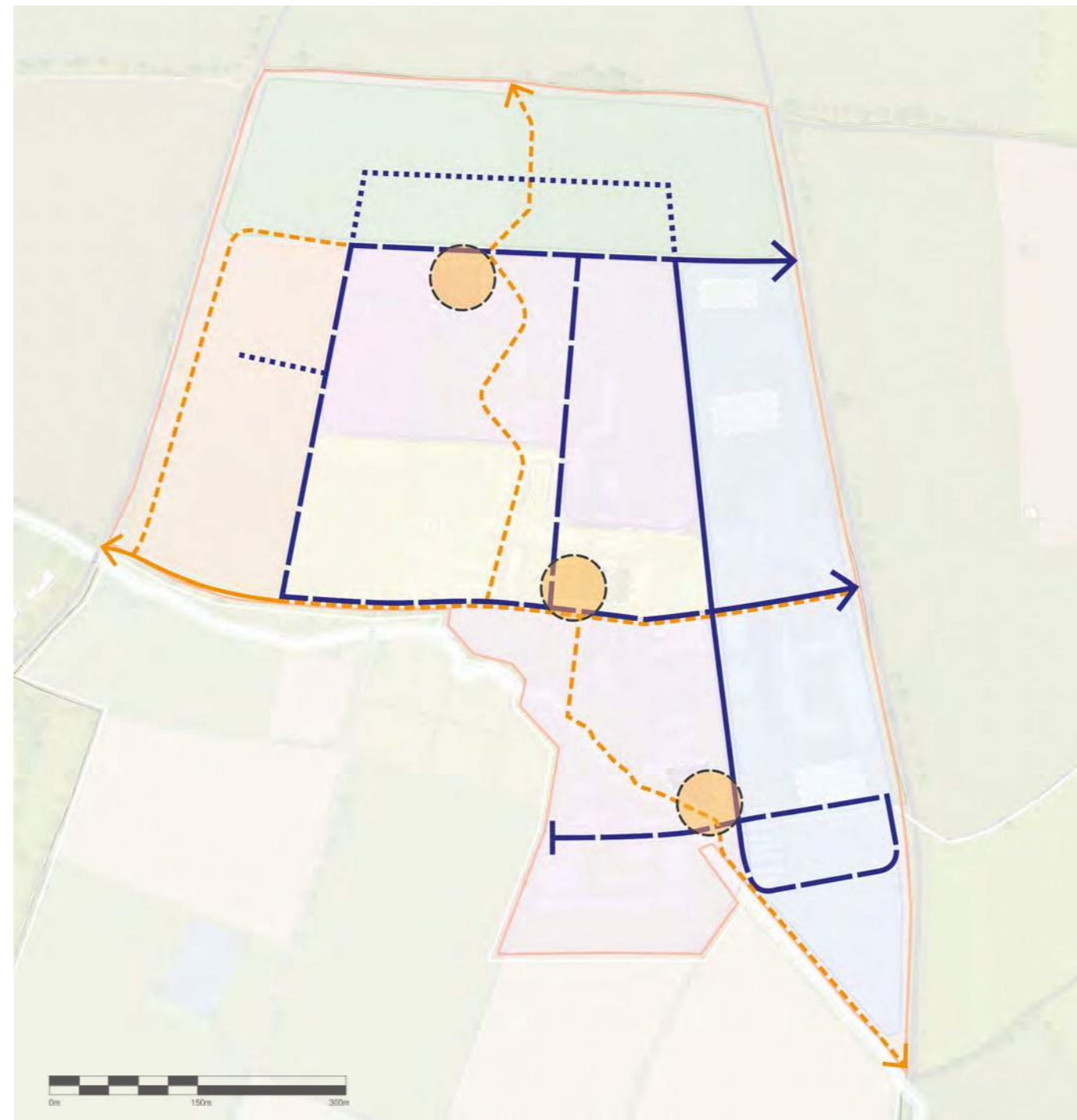


IMAGES DISPLAYING METHODS OF SUSTAINABLE TRANSPORT, AND ASSOCIATED HUB BUILDINGS WITH NATURAL MATERIALITY
IMAGES ABOVE ARE INDICATIVE ONLY OF WHAT COULD BE ACHIEVED AT WELLESBOURNE CAMPUS - THEY ARE NOT REQUIREMENTS

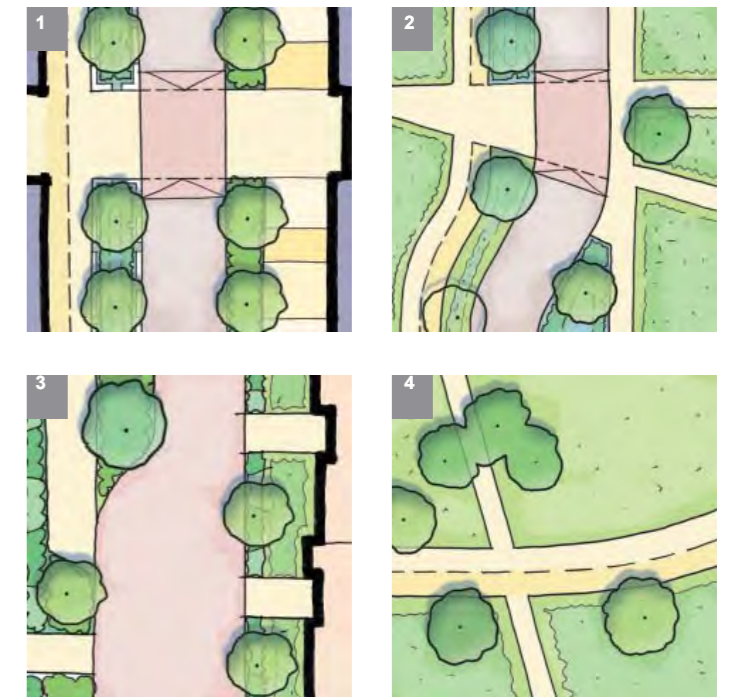
MOVEMENT STRATEGY


3.215 The landscape design will support the creation of a movement network which minimises car usage and encourages sustainable transportation. The following key elements are proposed:

- Primary streets: These streets will be prioritised for the eastern-most movement corridor, close to the parking and mobility hubs and site entrance via the A429. Primary streets will be suitable for all vehicle traffic and formal in character, with tree avenues, rain gardens, segregated foot and cycleways and regular crossing points at raised tables.
- Secondary streets: Secondary streets will be suitable for light vehicle traffic, with segregated foot and cycleways separated from the carriageway by verges, swales and street tree planting.
- Tertiary streets: Tertiary streets will be suitable for very occasional vehicle traffic (emergency services, delivery vehicles and disabled parking only). Tertiary streets will be shared surfaces, with the carriageway primarily for pedestrians and cyclists.
- Pedestrian/cycle link to Charlecote. This route will not be accessible for vehicles and serve as a pedestrian and cycle link to Charlecote.
- Strategic cycle-ways: 3.5m wide shared foot and cycle ways will be proposed along the main boulevard and central green corridor to enhance sustainable movement across the site and to the village of Wellesbourne.




MOVEMENT STRATEGIC PLAN

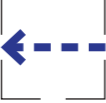


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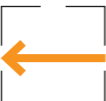
1. PRIMARY STREETS:

 - SUITABLE FOR ALL VEHICULAR TRAFFIC WITH SEGREGATED CYCLE ROUTES
 - FORMAL AVENUE TREES AND RAIN GARDENS
- 


2. SECONDARY STREETS:

 - SUITABLE FOR LIGHT VEHICULAR TRAFFIC
 - FOOT/CYCLEWAYS SEPARATED BY VERGES
 - INFORMAL STREET TREES AND SWALES
- 

3. TERTIARY STREETS:

 - SUITABLE FOR EMERGENCY SERVICES, DELIVERIES AND DISABLED VEHICULAR TRAFFIC ONLY SHARED SURFACES THROUGHOUT.
- 

4. PEDESTRIAN/CYCLE LINK TO CHARLECOTE:

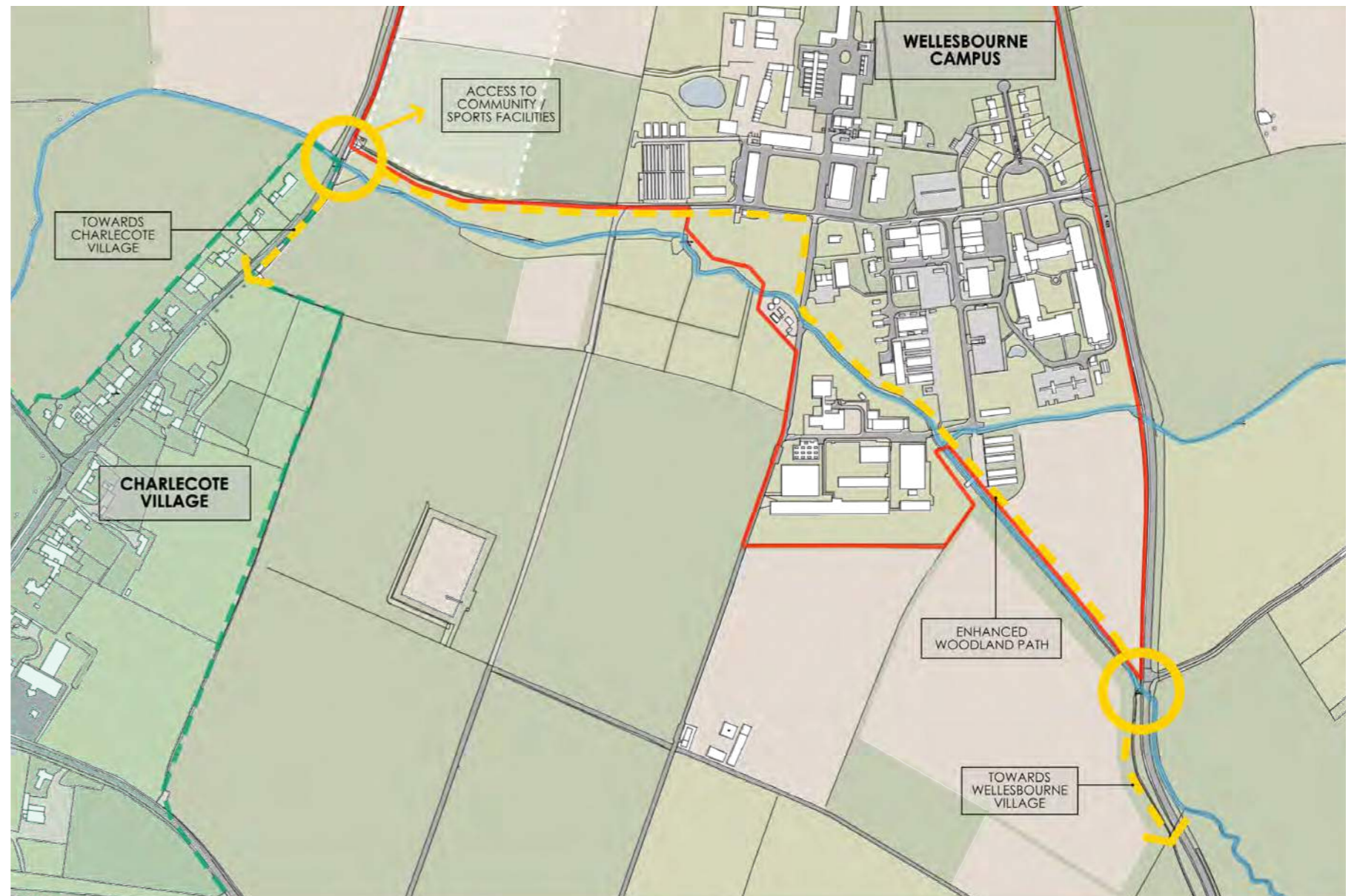
 - FOOT/CYCLE TRAFFIC ONLY TO ENHANCE LINK BETWEEN BIRMINGHAM ROAD AND CAMPUS.
- 

STRATEGIC CYLCEWAYS:

 - 3.5M WIDE SHARED FOOT AND CYCLEWAYS SEPARATED FROM ROADS

WOODLAND PATH

- 3.216 Enhanced link between Charlecote and Wellesbourne villages as well as Hampton Lucy village.
- 3.217 An opportunity to enhance the experience of using the woodland path through the creation of a "Sculpture/Art Trail."



IMAGES DISPLAYING WOODLAND AND WILDLIFE WALKWAYS
IMAGES ABOVE ARE INDICATIVE ONLY OF WHAT COULD BE ACHIEVED AT WELLESBOURNE CAMPUS - THEY ARE NOT REQUIREMENTS

INDICATIVE MASTERPLAN LAYOUT

3.218 This indicative diagram shows how the individual character areas link together to establish an overarching concept masterplan for the Campus. This indicative plan illustrates how the form of development could come forward based on a development ratio of approximately 45% for each individual development plot



TOP - INDICATIVE MASTERPLAN DIAGRAM WITH CHARACTER AREAS OVERLAID
RIGHT - INDICATIVE MASTERPLAN LAYOUT



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INDICATIVE BUILT FORM HEIGHTS

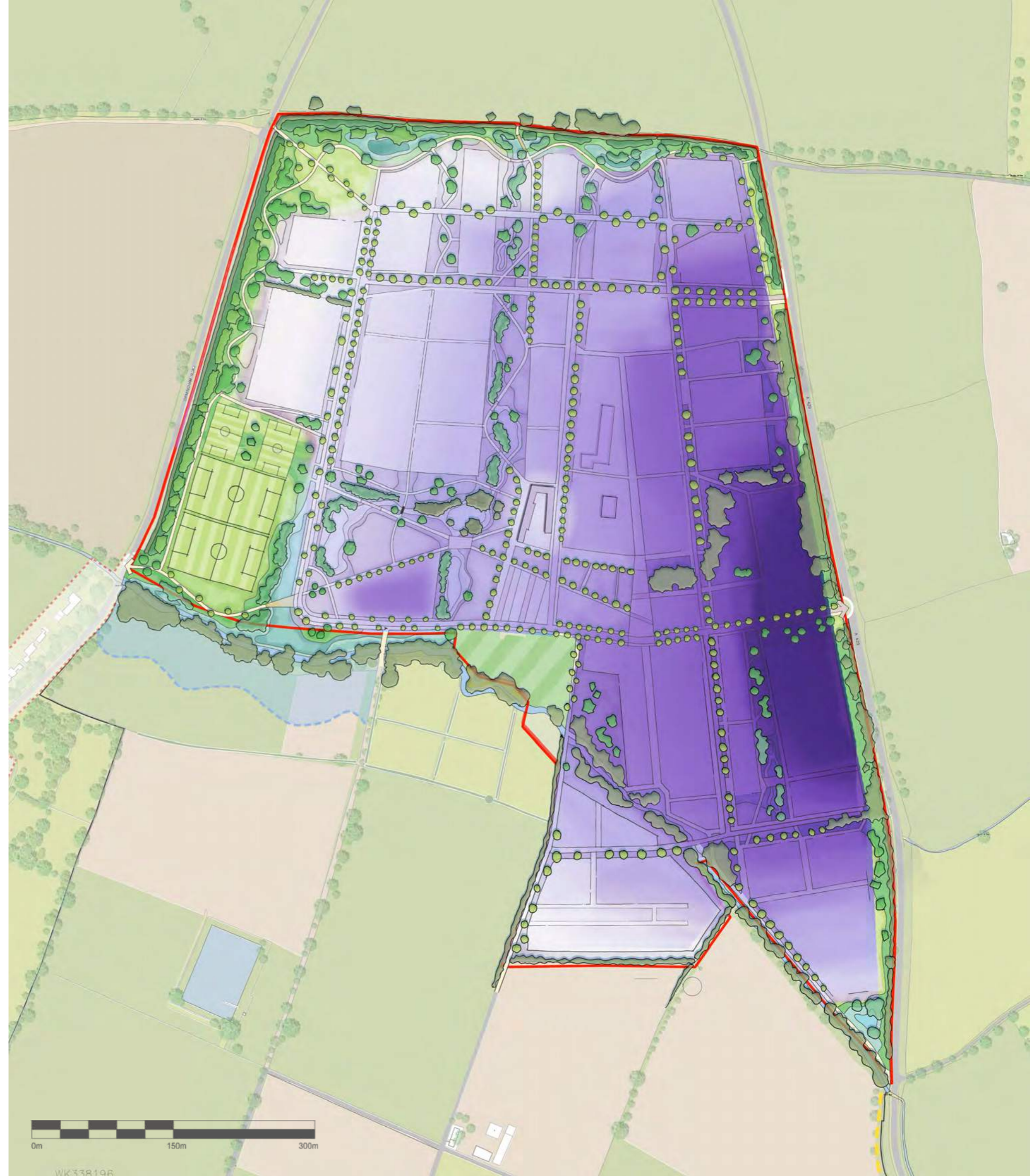
- 3.219 The masterplan aims to significantly improve the condition of the public realm and built form, generating new connections, frontages, a variety of uses, materials and building heights, as well as new landmarks to support placemaking on the campus.
- 3.220 These respond to its surrounding environment, factoring in the site's constraints and opportunities for the considered development of the Campus.
- 3.221 Built form heights should range from 1 to 4 storeys across the site, assuming the existing buildings fronting the A429 as a precedent for this massing principle.
- 3.222 A noticeably lower density and height should be contemplated towards the western and northern edge areas of the site, which respond to higher sensitivity constraints.
- 3.223 A gradually denser and taller built form can be pursued towards the eastern boundary and the central boulevard, providing a sense of place to the Campus.

KEY

-  Lower
-  Medium Lower
-  Medium Higher
-  Higher



INDICATIVE BUILT FORM HEIGHTS DIAGRAM



4. Delivery and Implementation

- 4.1 This section of the masterplan sets out how the masterplan will be delivered, including identifying the key infrastructure components and an indicative phasing plan.

HOW THE MASTERPLAN WILL BE DELIVERED

- 4.2 Development will be delivered through partnership working between Stratford-on-Avon District Council, the University of Warwick and businesses. The needs of the University and its businesses will be supported.
- 4.3 By establishing a masterplan, this masterplan will ensure that development happens in a co-ordinated way and the wider environmental, social and economic benefits are secured for the benefit of the area.
- 4.4 By preparing this masterplan, the Council is giving clear guidance to the University of Warwick and its stakeholders as to what type of development the Council expects to see, thus giving certainty and reducing the risks often associated with development. In return, the Council will seek to approve development proposals that accord with the masterplan principles without delay.

RELOCATING EXISTING BUSINESSES WITHIN THE CAMPUS

- 4.5 Stratford-on-Avon District Council and the University of Warwick will encourage existing businesses to relocate within the campus so that economic activity and job opportunities can continue to benefit local people. Existing businesses should be prioritised to minimise any disruption to their operations.
- 4.6 In order to facilitate development, there may be instances where businesses need to relocate to new premises on a temporary basis, including the main university campus. There is also scope to utilise the existing laboratory quad building to act as temporary space to accommodate different departments as and when required.
- 4.7 Indeed, the timing of the temporary relocation may be related to the operational needs of the faculties and businesses, the costs of relocation, or the costs of accommodation in a new location. The phases of development will need to be carefully considered to facilitate an orderly and comprehensive redevelopment of the campus. Regarding the relocation of the nursery, alternative suitable provision will be provided prior to the closure of the existing nursery and following full consultation with the occupier.

SUSTAINABILITY

- 4.8 The Core Strategy sets a requirement for development to achieve water and energy efficiency BREEAM 'Good' Standard however the University will, in accordance with its University-wide policy, ensure that all developments within the Campus achieve BREEAM 'Excellent' Standard.

GROUND CONDITIONS AND CONTAMINATION

- 4.9 The university campus comprises previously developed or brownfield land. Whilst the redevelopment of such land is encouraged, there are likely to be challenges arising from the history of the site.
- 4.10 It is possible that some previous uses may have caused limited contamination. Full and detailed site investigations will therefore be necessary when bringing forward development proposals.

FLOOD RISK, DRAINAGE AND SEWERAGE

- 4.11 Development will meet the requirements of Policy CS.4, Water Environment and Flood Risk and the Flood-Risk and Drainage strategy sets out measures for improving water quality and minimising flood-risk from all sources.
- 4.12 The SPD also sets out important principles related to the linkage of SuDS to green infrastructure to provide environmental enhancement and amenity, social and recreational value, as well as balancing storm flows and improving water quality. The design of SuDS should maximise the opportunity to create amenity, enhance biodiversity and contribute to a network of green and blue open spaces throughout the campus.

UTILITIES

- 4.13 Industrial and commercial buildings often have different utility (i.e. water, gas, electricity) requirements than homes. Stratford-on-Avon District Council recommends that developers contact the utility network providers for further information and guidance.

ELECTRICITY

- 4.14 National Grid owns, maintains and operates the electricity transmission network in England and supplies energy from generating stations to local distribution companies. The local distribution company in Stratford on Avon is Western Power Distribution (WPD). It is their role to provide electricity to homes and businesses. The University are in regular contact with WPD and will continue to discuss solutions to any short-term issues with power supply. This may require the use of temporary battery storage to address any short-term issues with electrical power supply.
- 4.15 The University may also need to utilise appropriate renewable energy sources, such as solar and ground-source heat pumps as sustainable forms of energy. The university will explore the use of a District Heating Network to provide a low carbon heating solution to the campus.

GAS

- 4.16 National Grid Gas owns and operates the gas distribution networks through which gas is transported to users. It also is the gas supplier in the West Midlands. On any individual site, connection to the network is the responsibility of the developer.

WATER

- 4.17 When specific detail of planned development location and sizes are available a site specific assessment of the capacity of the water supply network could be made. Any assessment will involve carrying out a network analysis exercise to investigate any potential impacts.

TELECOMMUNICATIONS

- 4.18 This Masterplan sets out a framework for significant investment in research and Innovation and to facilitate this, effective broadband connectivity is crucial. Proposals for the Campus will, as a minimum, meet the requirements of Core Strategy Policy CS.26, including connection to high speed broadband infrastructure capable of providing a minimum download speed of 30Mbps. Major infrastructure development must provide ducting that is available for strategic fibre deployment. The University will continue to have discussions with strategic providers to ensure sufficient broadband connectivity is available.

DELIVERING INFRASTRUCTURE

- 4.19 The key infrastructure components relating to the University of Warwick Wellesbourne campus are set out in the table in the following page. Please note that this table is not intended to be exhaustive and there will be other infrastructure items such as lighting and further ecological enhancements that will come forward on the campus. The approximate timescales indicated in the table are on the following basis:
- Short term - 1-5 years
 - Medium term - 6-10 years
 - Long term - 11+ years
- 4.20 Successful delivery of the redevelopment of the University of Warwick Wellesbourne campus is dependent upon effective co-operation between the Council, landowners, developers and a number of statutory agencies. The Council will expect to see evidence of collaboration between all stakeholders in developing complementary proposals. Each part of the development will contribute to infrastructure costs, and each proposal should consider its wider role in the provision of infrastructure costs, and each proposal should consider its wider role in the provision of infrastructure.
- 4.21 The Council adopted its Community Infrastructure Levy (CIL) in December 2017. The charging schedule sets out what forms of development are liable. The uses anticipated to come forward on the campus are not expected to be liable for CIL with the exception of any café (formerly A3 use) that may be required.

MONITORING AND REVIEW

- 4.22 The Council will monitor the delivery of the University of Warwick Wellesbourne campus using indicators such as:
- The delivery of new floorspace for research and development purposes
 - The delivery of key items of infrastructure listed in the table on the following page
 - This will be part of the Authority's Monitoring Report (AMR) which is published annually. If there is evidence that the masterplan is failing to guide successful delivery, it will be reviewed.

INFRASTRUCTURE DELIVERY

WHAT	WHEN	CHARACTER AREA	WHO	WHY	FUNDING SOURCE	RISKS TO IMPLEMENTATION
Road infrastructure, both internal network and creation of Mobility Hub and external Improvements (A429 Roundabout at existing main entrance and additional exit left turn onto A429)	Short-term	Zone 5	University of Warwick, Warwickshire County Council	Essential – required to facilitate progression of Campus development and facilitates the increased number of trips to the Campus that will result from the development	S106	Medium - requires establishing new vehicular access points onto A429
Power infrastructure (sustainably green sourced energy & distribution centre)	Short-term	All	University of Warwick, Warwickshire County Council	Essential – required to facilitate progression of Campus development	N/A	Low
Ecological boundary improvements, particularly around western boundary edge	Short-term	Zone 1 - Community, Zone 2 - North Innovation Campus, Zone 3B - South Innovation Campus	University of Warwick	Essential – required to facilitate progression of Campus development	N/A	Low
Site wide external landscape and pedestrians infrastructure	Short-term	All	University of Warwick	Essential – required to facilitate progression of Campus development	N/A	Low
Creation of SUDs/drainage overflow on SW site location	Short-term	Within wider site area	University of Warwick	Essential – required to facilitate progression of Campus development	N/A	Low
Improved Pedestrian and Cycle Links throughout campus and to Charlecote, particularly in the east-west pedestrian route	Short-term	All	University of Warwick, Warwickshire County Council	Essential – improves connectivity throughout the Campus and with the wider area	S106	Low
Relocated Playing Pitches	Short-term	Zone 1 - Community	University of Warwick	Essential – provides an important community use and is required to facilitate progression of Campus redevelopment	N/A	Low
Re-purposed Barns - External refurbishment and courtyard works	Short-term	Zone 4 - Village Centre	University of Warwick	Essential – creates a village centre to the Campus	N/A	Low
Re-purposed Barns - internal fit-out	Medium-term	Zone 4 - Village Centre	University of Warwick	Creates a village centre to the Campus	N/A	Low
Relocated Children's Nursery Building	Medium-term	Zone 1 - Community	University of Warwick	Provides an important community use and is required to facilitate progression of Campus redevelopment	N/A	Low

WHAT	WHEN	CHARACTER AREA	WHO	WHY	FUNDING SOURCE	RISKS
Relocated Campus Residential Accommodation	Medium-term	Zone 1 - Community	University of Warwick	Provides an important asset to Campus employees and is required to facilitate progression of Campus development	N/A	Low
Woodland Path	Medium-term	Zone 1, 3b, 4, 5	University of Warwick	Will provide improved east-west connections and allow better appreciation of natural environment	S106	Medium - detailed design needs to be worked up
Improved Connections to Wellesbourne including footpath/cycleway and A429 crossing to connect to Warwick Road.	Medium-term	Zone 5	University of Warwick, Warwickshire County Council	Important to establish a safe and attractive route to the village of Wellesbourne	S106	Medium - will require at-grade crossing of the A429 and potential reduction of traffic speeds on A249 to allow safe pedestrian passage.
Land based PV	Long-term	Wider Site Area TBD	University of Warwick	Will provide a renewable energy source to provide additional power supply to the campus	N/A	Medium - landscape and heritage considerations

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