

CAMBRIDGE SOUTH

Planning Report



JESUS COLLEGE
CAMBRIDGE



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Cambridgeshire
County Council

Quod

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1 Introduction and Purpose of Submission

Purpose of this Report

- 1.1 The purpose of this report is to evaluate the proposals for the expansion of the Cambridge Biomedical Campus (CBC) onto the land known as Cambridge South, within the context of up to date national and local planning policy.
- 1.2 The report has been prepared on behalf of four major landowners (Jesus College, St John's College, Cambridgeshire County Council and a private family trust) ('the landowners') who have substantial landholdings to the south and south-west of CBC. These landowners have come together at the invitation of the CBC Strategy Group to propose how the future needs of CBC could be met through a sustainable expansion of CBC onto their land.
- 1.3 This submission is led by an overarching *Case for Cambridge South*, which provides the context for the submissions from the landowners to the Greater Cambridge Shared Planning Service ('GCSP'). That overarching document explains the need for expansion of CBC and CBC's vision for the Campus to develop into a world class Life Sciences innovation district by expanding onto and incorporating Cambridge South.
- 1.4 This report supports the *Case for Cambridge South* and is submitted alongside a series of other complementary reports to inform the preparation of the Greater Cambridge Local Plan. The additional documents submitted alongside this Planning Report are:
 - The CBC Vision 2050,
 - Draft Spatial Vision, prepared by Allies and Morrison,
 - Environmental Appraisal, prepared by Quod,
 - Transport Strategy, prepared by Vectos,
 - Utilities Appraisal, prepared by Buro Happold,
 - Cambridge South – Building a World Leading Innovation District for the Life Sciences, prepared by Creative Places.
- 1.5 The proposals for Cambridge South respond to the need to plan for the long-term future of CBC, which is explained more fully in '*Cambridge Biomedical Campus Vision 2050: Creating a Life Sciences quarter for Cambridge*' (the '*CBC Vision 2050*'), prepared by the CBC Strategy Group. The *CBC Vision 2050* sets out a long-term plan for the expansion and evolution of the Campus so that it may fulfil its remarkable potential. The vision is expressed as follows:

CBC Vision 2050

“Cambridge Biomedical Campus will be globally leading and locally rooted, the preferred destination for Life Sciences, where research, commercialisation and real-world application come together to create life-saving innovation in a vibrant local community.”

- 1.6 While the *CBC Vision 2050* does not detail specific development requirements, if CBC is to realise its potential as a world leading Life Sciences innovation cluster, it will need to answer certain key development challenges. Answering these challenges can only be achieved with an expansion of the Campus in close proximity to the existing CBC site.
- 1.7 The necessary nature and quality of the expanded Campus is explained in a series of goals and governing principles set out in the *CBC Vision 2050*, as follows.

The CBC Vision 2050 Principles

- *“Defined by co-location – Where research, business and clinical excellence come together, benefitting uniquely from proximity, to improve lives,*
 - *The smartest place in Europe – Unrivalled in its capacity to accelerate the cycle of discovery, scaling and commercialisation, supported by a smart environment that drives knowledge transfer.*
 - *A vibrant community – An inclusive, sustainable, genuinely affordable neighbourhood that is the best of Cambridge.*
 - *People centred – Designed at a human scale to promote innovation, talent, collaboration, health and wellbeing.*
 - *Globally connected – Dynamic relationships with, and connections to, innovative places throughout Cambridge, the UK, Europe and the world.”¹*
- 1.8 The scale and national importance of the Campus for the future of health and wellbeing research, innovation and discovery create a compelling case for expansion but also requires that any such expansion is planned and delivered to the highest quality.
- 1.9 The nature of the joint working between CBC and the landowners is unusual. CBC has no legal interest in Cambridge South and has not published the *CBC Vision 2050* as a developer. Rather, the CBC Strategy Group represents a collaboration of the most important Life Sciences institutions in Cambridge and its objectives are focused on promoting the expansion of opportunities for Life Sciences. CBC and the landowners have agreed to work jointly to ensure that Cambridge South can be planned and delivered as an expansion of the Campus – to be

¹ Page 11, *CBC Vision 2050*.

developed, controlled and managed to further its future as the most important concentration of biomedical Life Sciences in Europe.

Cambridge South

1.10 The landowners' holdings comprise a large study area to the immediate south of Trumpington and CBC, divided by linear development along Cambridge Road, bordered to the west by the M11 and to the east by Babraham Road. To the south, the study area is enclosed by the Cam River corridor, the village of Great Shelford and by land which rises towards the Gog Magog Hills. The land is fragmented and there is currently no clear landscape structure framing or unifying the southern fringe of Cambridge. However, the land is designated Green Belt and it currently performs the important task of restricting the southern expansion of the City.

Figure 1: Cambridge South Study Area



1.11 Parts of the study area east and west of Cambridge Road were the subject of separate submissions to the Greater Cambridge Planning Service's (GCSP's) Call for Sites exercise in March 2019 and consultation responses to the Greater Cambridge Local Plan – The First Conversation: Issues and Options consultation ('the First Conversation') in February 2020. The four landowners have now come together to work with CBC to realise the opportunity for comprehensive redevelopment, focused on meeting the identified needs of the Campus and local communities.

1.12 The *CBC Vision 2050* identifies an important agenda for expansion but also for change and diversification if CBC is to build on its exceptional base to achieve its full potential as a world leading biomedical innovation district. The Vision identifies the type of development required

to support the Campus to 2050, including more research, R&D floorspace, additional clinical development and, just as importantly, supporting commercial uses, housing, greenspace and social infrastructure, the absence of which are constraining the Campus.

- 1.13 The planning, master planning and technical work supporting this submission directly responds to that Vision. Continued joint working between CBC and the landowners will evolve that development brief, and it will be shaped by engagement with affected communities and with the Greater Cambridge planning authorities. It is, however, sufficiently clear to be translated into a draft spatial framework.
- 1.14 The consultant team has developed a draft Development Brief with CBC and considered how it may be accommodated in the context of the characteristics of the study area. Led by a careful landscape analysis, a strategy has been developed which can unite and enhance the landscape, improve public access to the Green Belt and enhance the amenity to the south of the City whilst creating two development zones within which the needs of CBC can be sustainably met.
- 1.15 Green Belt land will be used but there are exceptional reasons to do so, and the submissions describe how long-term Green Belt boundaries can be established and the retained Green Belt land substantially enhanced to create an appropriate southern edge to the City.
- 1.16 This Planning Report summarises that work in the context of planning policy.

Structure of this Report

- 1.17 This Planning Report is structured as follows:
- **Section 2 - The Need for Growth in Life Sciences** summarises the national role of Cambridge and sets out the challenges to its future.
 - **Section 3 - The Need for Growth at the Cambridge Biomedical Campus** summarises the growth needs of the CBC and explains the generation of the Brief used to guide the emerging proposals.
 - **Section 4 - Southern Cambridge Context** introduces the study area and the land identified for expansion in its current context and explains its relationship with CBC.
 - **Section 5 - Development Proposal** sets out how the spatial requirements of the *CBC Vision 2050* can be accommodated on the expansion land.
 - **Section 6 - Environmental Considerations** provides an overview of the environmental constraints and opportunities that have guided the development of the proposals.
 - **Section 7 - Planning Policy** considers the compliance of the proposals with national, regional and local planning policy.
 - **Section 8 - Summary and Conclusions.**

2 The Need for Growth in Life Sciences

- 2.1 CBC has grown rapidly over the last twenty years to establish itself as a nationally important concentration of leading Life Sciences institutions and businesses clustered close to Addenbrooke's and now Royal Papworth Hospitals. It has done so under the guidance of the previously prepared *2020 Vision*, which was first published in 1999 and which provided the basis for collaboration between the Cambridge University Health Partners (CUHP), Cambridge University and the Medical Research Council with a shared goal of planning for “*a future in which the Campus became an international centre of excellence*”.²
- 2.2 By 2020 the Campus had surpassed the growth aspirations of its original vision. The Campus has evolved into an exceptional asset for Cambridge and the UK, currently employing an estimated 20,000 staff, through successfully attracting a number of major occupiers including Abcam, the Royal Papworth Hospital, the UK Medical Research Council and the global R&D headquarters for AstraZeneca. It is a measure of the success of the Campus that the land known as Phase 2 and referred to at the time of the *2020 Vision* as the ‘2040 land’ is now substantially developed or committed for development.
- 2.3 In the context of the current global pandemic and the growing importance of Life Sciences, CBC has developed into a platform with exceptional potential for further growth. The *CBC Vision 2050* identifies that potential but also recognises the need for the Campus to diversify its range of amenities and supporting activities if its potential is to be realised. The Vision recognises that existing issues of unsustainable traffic conditions and a chronic lack of suitable housing for Campus workers also need to be addressed.
- 2.4 The very specific factors driving future demand for employment floorspace at the CBC are set out in the report ‘*Cambridge South – Building a world leading innovation district for the Life Sciences*’, prepared by Creative Places and submitted alongside this Planning Report.
- 2.5 The *Case for Cambridge South* also explains the need for the evolution and growth of the Campus and has been prepared jointly with CBC. As this section of the Planning Report explains, these expert assessments should carry great weight, not least because building on the success of Cambridge's Life Sciences expertise is directly supported by up-to-date national policy.

Cambridge's national role

- 2.6 is one of the world's leading centres of Life Sciences research, innovation and healthcare provision. The critical importance of the UK's leading role in Life Sciences is directly recognised and supported in the most up to date expressions of national policy.
- 2.7 The Government's 2017 *Industrial Strategy* confirmed the importance of the Life Sciences sector in the UK economy, with the sector given prominence as a major component of the current and future economic base of the UK. The *Industrial Strategy* noted the UK's “*leading-*

² 2020 Vision at Addenbrookes. Cambridge University Hospitals NHS Foundation Trust, July 2004.

edge” in the Life Sciences sector but also that its development is being held back by a lack of investment.³ The *Industrial Strategy* identified the importance of building innovation excellence across the country and the role of universities in attracting investment, including specifically the importance of the research cluster supported by the Cambridge Laboratory of Molecular Biology at the Campus.

2.8 As part of its strategy to reinforce the UK Life Sciences offer, the *Industrial Strategy* led to the sector-specific *Life Sciences Industrial Strategy*, also published in 2017, which recognises the important role of ‘clusters, infrastructure and place’ in growing the Life Sciences sector. It acknowledges the Golden Triangle of Cambridge, London and Oxford as the third largest technology cluster in the world and recommends the co-location of universities and discovery science.⁴

2.9 Most recently, the Government has published *Build Back Better – our plan for growth* (March 2021). The UK’s international success in Life Sciences is given a prominent role in leading the economic recovery from the pandemic. The Prime Minister’s foreword is particularly direct and pertinent and it leaves no doubt about the central importance of science and innovation:

“I believe the formula for our success can be seen in the collaboration between industry, science and government that led to the production of the vaccines. Strong and active government investing massively in science and technology, coupled with a dynamic enterprise economy that embraces the instincts and know-how of the private sector.”⁵

2.10 In that context, Life Sciences are given a prominent role. The document explains:

“The UK is one of the best places in the world for life sciences. Over many decades the UK has established clusters of the most advanced scientific research facilities anywhere in the world, made possible by top class universities ...globally renowned clinical research and a unique cradle to grave health care system in the NHS. The government has worked closely with industry and scientists to grow the life sciences sector through delivering the Life Sciences Industrial Strategy. This provides a road map for the UK to take the lead on cutting edge, emerging industries, such as genomics, early stage diagnostics, advanced therapies and digital health.”

2.10 The sector is identified as employing 224,000 people in England with a turnover of £73.5bn but there is no doubt that the Government is determined that the UK should capitalise on its world leading credentials, which represents one of the country’s most significant opportunities for growth. As the document makes clear:

“The pace of technological change and global competition means that we must consider how to support the sectors and technologies that will help shape the UK’s future, for example:

³ Page 61, *Industrial Strategy: building a Britain fit for the future*. Department for Business, Energy & Industrial Strategy, November 2017.

⁴ Page 23, *Life Sciences Industrial Strategy*.

⁵ Page 6, *Build Back Better – our plan for growth*. HM Treasury, March 2021.

- *In life sciences we will build on our performance and leadership to date to create the most advanced genomic healthcare system in the world.*

2.11 All economic sectors are important, but none are singled out as offering greater promise than Life Sciences. The fact that this is so directly expressed in the most up to date national policy provides a strong message to the Greater Cambridge Local Plan to recognise the national importance of the sector and a clear expectation that the City will plan to “*support*” the sector, so that it can “*help shape*” our economic future.

2.12 Against this background, the *Case for Cambridge South* spells out the importance of CBC both economically, but also in terms of the contribution which it makes to global healthcare research and discovery. It also details, however, how the success of the Campus and the platform that it has established for growth mean that it will soon run out of floorspace.

2.13 The Local Plan must respond if it is to play the part expected by government policy.

Challenges facing Cambridge

2.14 Despite its success (and sometimes because of it), Cambridge suffers from significant constraints and obstacles to achieving the growth that should be expected of it. Those obstacles are well documented and emerging planning policy recognises how important it is that they are addressed.

The Oxford to Cambridge Arc

2.15 Cambridge, for instance, sits at the eastern end of the Oxford-Cambridge Arc, which the National Infrastructure Commission (‘NIC’) has identified as an area of particular economic potential. Cambridge is recognised as being amongst the UK’s most productive, successful and fast-growing cities, playing host to a “*highly skilled labour force, world-leading research facilities, knowledge-intensive firms and technology clusters which compete on the world stage*”.⁶

2.16 The Arc contains some of the UK’s most productive and innovative places, where world-class research, innovation and technology are brought together to make a valuable contribution to the national economy. However, the success of the region has historically been undermined by a chronic undersupply of homes, and the NIC concluded that the rate of housing delivery will need to double to one million new homes by 2050 if the area is to fully realise its potential.⁷

2.17 The Arc has also been undermined by a lack of infrastructure provision. The Government’s *National Infrastructure Strategy* recognises the importance of infrastructure in underpinning the economy, with transport, digital, energy and utility networks being vital for jobs, business and economic growth.⁸ The NIC identified that it is only through transport and housing being

⁶ Page 8, Partnering for Prosperity: A Deal for the Cambridge – Milton Keynes – Oxford Arc. National Infrastructure Commission, 2017.

⁷ Page 8, Partnering for Prosperity: A Deal for the Cambridge – Milton Keynes – Oxford Arc.

⁸ Page 8, National Infrastructure Strategy. HM Treasury, November 2020.

planned and delivered through a single integrated programme that the economic potential of the Arc be unlocked.⁹

- 2.18 Following the identification of the Oxford-Cambridge Arc region as a growth opportunity of national significance, the Government announced its intention to adopt an Oxford-Cambridge Arc Spatial Framework by the end of 2022 as government planning policy in order to stimulate and guide investment.
- 2.19 The Government recently published a policy paper which provides an *Introduction to the Spatial Framework*, recognising the economic capability of the region which accounts for 7% of England's GVA.¹⁰ It also recognises the shortcomings of the region, including poor east-west connectivity and poor housing affordability, citing Cambridge's worsening housing affordability ratio of 12.8 (against England's average of 7.4) as a key constraint to future economic growth. The *Introduction to the Spatial Framework* also recognises that the historic undersupply of homes and ever-increasing demand puts home ownership out of reach for many in the region, a problem which is faced at a local level for employees of CBC.
- 2.20 The policy paper also recognises that the shortage of housing makes it harder for businesses to locate in the most productive locations close to other institutions, and to attract the skilled workers they need. This results in longer and more polluting journeys as people travel further to get to work. The *Introduction to the Spatial Framework* crucially acknowledges that the historic patterns of growth are unlikely to be sustainable in the future for the economy, environment or communities in the Arc unless there is a step change in investment in infrastructure and housing.

The Greater Cambridge City Deal

- 2.21 The Government is alive to this. The Greater Cambridge City Deal agreed between the Cambridge local authorities and government in 2013 secured investment for Cambridgeshire worth up to £500 million over a 15-year period. The deal is intended to enable vital improvements to infrastructure and to support the creation of 44,000 new jobs, 33,500 new homes, resulting in an estimated £4 billion of private sector investment in the Greater Cambridge area.¹¹
- 2.22 The City Deal recognises the internationally significant role of Cambridge:

*“Greater Cambridge competes on a global stage and is a gateway for high-tech investment into the UK. It is also the innovation capital of the country, with more patents per 100,000 population than the next six cities combined. Greater Cambridge's economic success to date is the story of a networked and connected city region characterised by world-leading innovation”.*¹²

- 2.23 Government funded infrastructure investment in order to facilitate growth is apparent in the south of the city through enhancements in the guided bus network, park & ride improvements

⁹ Page 34, Partnering for Prosperity: A Deal for the Cambridge – Milton Keynes – Oxford Arc.

¹⁰ Page 2, Planning for sustainable growth in the Oxford-Cambridge Arc: an introduction to the spatial framework. Ministry of Housing, Communities & Local Government. February 2021.

¹¹ Greater Cambridge City Deal. HM Government, June 2014.

¹² Greater Cambridge City Deal. HM Government, June 2014.

at the M11 junction, the commitment to a new rail station at Cambridge South, government plans for East West Rail and the new rapid transit link currently being provided from Sawston. The purpose of that investment is to provide opportunities for sustainable growth – but that can only be achieved if sufficient land is allocated to enable that growth.

- 2.24 The provision of the investment was predicated on an agreement that the region would seek to double its GVA output by 2041, from £22 billion to £40 billion.¹³ Economic growth in the Life Sciences sector has been growing at 23% per annum since 2012/13 but the sector’s continued success cannot be taken for granted.¹⁴ In the face of international competition for global talent and investment, that growth rate can only be sustained through determined strategies for investment in infrastructure, housing and ‘place.’

Cambridgeshire and Peterborough Independent Economic Review

- 2.25 The Cambridgeshire and Peterborough Independent Economic Review (‘CPIER’) report prepared by the Cambridgeshire and Peterborough Independent Economic Commission assessed the Cambridgeshire and Peterborough economy and its potential for growth. It considered the requirements of the City Deal, including the ambition to double the region’s GVA, and assessed the region’s ability to meet those requirements.

- 2.26 The CPIER report set out three alternative growth scenarios that would achieve the doubling of GVA, each a combination of employment and productivity growth. It identified a central scenario as ‘most reasonable’, requiring a productivity growth rate of 0.8% per year, in combination with the generation of 126,000 new jobs by 2041.¹⁵ Delivering jobs at this scale is reliant upon Local Plans allocating sufficient employment land in locations which can achieve high productivity.

- 2.27 The CPIER report found that if the traditional forecasting tools (the East of England Forecasting Model or EEFM, 2010) are used, by 2031 the region would have 65,000 less additional workers than projected under the CPIER’s blended approach.¹⁶ It is this conservative forecasting approach that has in part contributed to the region’s historic undersupply of homes, as housing allocations based on conservative jobs forecasts have not kept up with actual levels of growth. The CPEIR report provides a clear warning for the consequences of under-planning the region’s growth.

- 2.28 The report also documents the constraints that act as barriers to economic growth and must be addressed. The outstripping of housing provision by job growth means that both existing and future housing demand is much higher than historically forecast. The CPIER report found:

“Consequently, house prices have soared and journey times have increased as congestion has intensified. This has meant that many have been forced to endure unpleasant commutes or have been priced away from the city altogether due to the unaffordability of rents”.

¹³ Cambridgeshire and Peterborough Independent Economic Review. Cambridgeshire and Peterborough Independent Economic Commission, 2018.

¹⁴ Cambridge Ahead, 2020

¹⁵ Page 35, Cambridgeshire and Peterborough Independent Economic Review.

¹⁶ Page 46, Cambridgeshire and Peterborough Independent Economic Review.

- 2.29 The CPIER report noted that under delivery of housing is one of the most significant barriers to growth that Cambridge is facing. Whilst housing demand has grown rapidly, supply has not been able to keep pace. Cambridge City Council and South Cambridgeshire District Council have collectively delivered an average of 1,669 new homes per annum against a combined Local Plan requirement of 1,675 over the last 8 years¹⁷ but the housing targets (14,000 homes for Cambridge and 19,500 homes for South Cambridgeshire respectively) were based on an assumption of 0.8% job growth for the Plan period.¹⁸ This anticipated rate was exceeded with actual job growth of 2.4% between 2010 and 2016 (and much higher growth in the Life Sciences sector).¹⁹ Consequently, the strains apparent on housing affordability, labour supply and long distance commuting are a direct result in part of insufficient planned housing growth.
- 2.30 The housing situation in Cambridge results from a unique combination of external pressures. Whilst under delivery plays a significant part, Cambridge also has a significant number of residents in rented accommodation compared to the national average (35% of residents live in private rental sector ('PRS') properties, as opposed to the national average of 17%),²⁰ reflecting the flexible nature of those in employment associated with research and with Cambridge University, as well as the unaffordability of homes to the local population. However, little of the city's housing stock has been purpose designed for renting. The traditional approach to the provision of housing, a focus on open market sale, has failed to address the needs of this set of occupiers. Consequently, many of those seeking smaller units, flexible tenures or high-quality shared accommodation for professionals have been unprovided for, forced to live in poor-quality accommodation not suitable for their needs. In turn, this has reduced the availability of stock for those in need of rented accommodation on lower incomes.
- 2.31 Cambridge's house prices are extremely high when compared to the national average – between April and September 2020 the average price of a house sold in Cambridge was £531,951 and in South Cambridgeshire the average price of a house sold was £469,794.²¹ The Government's November 2020 House Price Index shows that the average UK house price is £249,633.²² Whilst Cambridge residents enjoy relatively high salaries compared to national averages, house prices so far above the national average put home ownership out of reach of many on low and medium incomes and act as a direct handicap in the recruitment and retention of workers.

GCSP Local Plan Evidence Base

- 2.32 A suite of documents was published in November 2020 by GCSP to support work on the Greater Cambridge Local Plan. The documents informed a *Development Strategy Options Report* that tested three different levels of growth against eight different spatial options for the distribution of development. The growth levels are summarised in Table 1 below.

¹⁷ Housing Dashboard, Cambridge Ahead. February 2021

¹⁸ These were based on EEFM forecasting figures as noted at paragraph 2.17.

¹⁹ Page 44, Cambridgeshire and Peterborough Independent Economic Review.

²⁰ Page 5, Assessing the Housing Needs of Hospital Workers: A report for Cambridge University Hospitals NHS Foundation Trust. Savills, January 2020.

²¹ Housing Dashboard, Cambridge Ahead. February 2021

²² House Price Index, HM Land Registry. November 2020

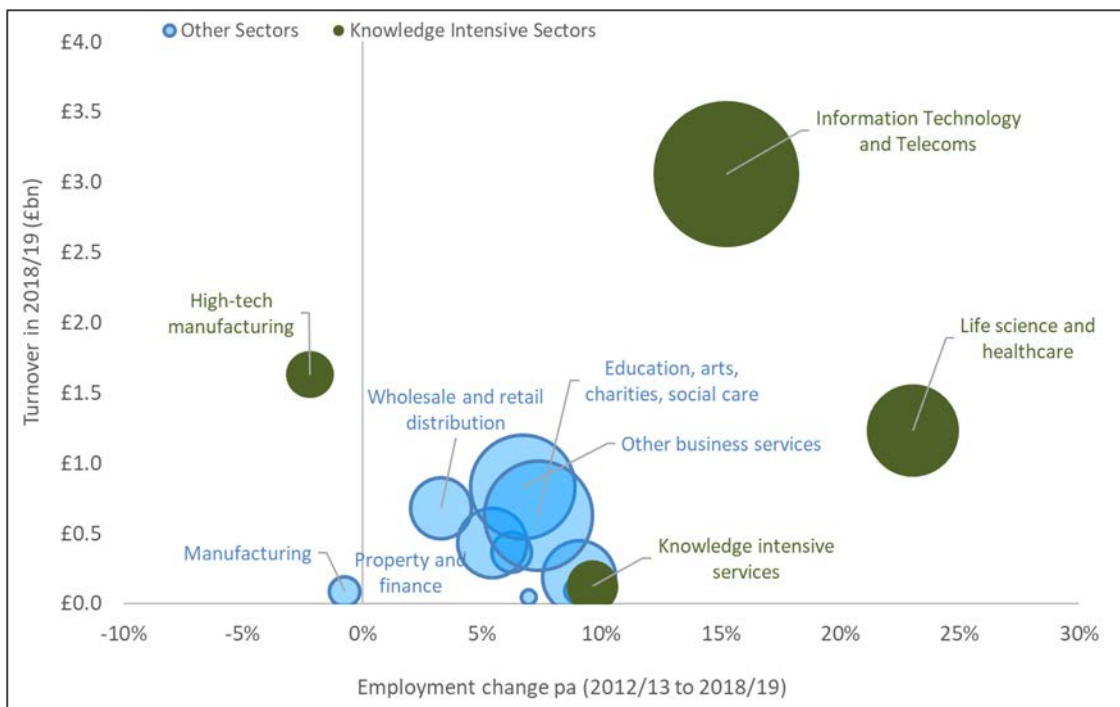
Table 1: GCSP Greater Cambridge Local Plan growth scenarios for jobs and homes

Growth level	Minimum	Medium	Maximum
Employment (jobs) total	45,800	58,500	78,700
Employment (jobs) per annum	2,181	2,786	3,748
Housing (dwellings) total	36,700	42,000	56,500
Housing (dwellings) including 10% buffer	40,300	46,200	62,700
Development in pipeline	36,400	36,400	36,400
Additional housing to be allocated in new Local Plan	3,900	9,800	26,300

- 2.33 Notably, these scenarios all contrast with the CPIER report, which identifies a need for 126,000 jobs in order to meet the agreed GVA target (i.e., an additional 68,000 jobs) and in order to rectify serious pressure on the housing market.
- 2.34 Similarly, even the maximum job growth level (78,700 jobs) identified in the GCLP evidence base would create a shortfall of approximately 45,000 jobs against the CPIER’s identified target of 126,000.
- 2.35 The potential failure of the Local Plan evidence base to plan for enough new jobs to meet the GVA target is a consequence of continuing to use the EEFM model, which was used to develop previous Local Plans. The justification for this approach in the *Development Strategy Options Summary Report*, states that the medium level is intended to consider longer term patterns of employment and place less weight on the fast growth seen in the recent past.²³ This does not recognise the unique growth seen in Cambridge over a sustained period, however, or the local authorities’ commitment to plan for higher levels of growth in the City Deal.
- 2.36 Data published by Cambridge Ahead data shows growth of 23% per year for the six years between 2012-13 to 2018-19 in Cambridge City – this is shown in the graph below.

²³ Page 14, Development Strategy Options Summary Report. Greater Cambridge Shared Planning, November 2020.

Figure 2: Employment and Turnover in Cambridge



Source: Cambridge Ahead (2020)

- 2.37 The conclusions drawn from the emerging local plan evidence base seek to constrain job growth on the basis of a lack of housing supply, but then constrain housing supply based on a lack of job growth. A failure to address the backlog of housing supply and to provide enough employment floorspace to address future growth needs misunderstands government policy and expectations for Cambridge and endangers the continued success of CBC.
- 2.38 A more positive approach to growth is required but, whatever scale of employment and housing growth is ultimately adopted in the new Local Plan, CBC has a unique need to be enabled to expand.

The necessary nature of growth

- 2.39 In order to most effectively plan for future growth, the CPIER report suggested encouraging a specific type of growth known as the innovation district model.²⁴ Innovation districts are often focused on specific technologies or industries and bring together large and established firms with start-ups to benefit from proximity, collaboration and knowledge spill over. Support is provided by existing and newly planned housing, whilst locating within concentrated urban areas enables firms in the innovation district to draw on the local labour market as well as established research and science bases. The nature of the typical occupiers of innovation districts (a dynamic mix of universities, commercial occupiers and other institutions) means their success can directly support regional economic growth. The CPIER report cites CBC as an innovation district that already exists in the region with many of the ingredients necessary for growth.

²⁴ Page 50, Cambridgeshire and Peterborough Independent Economic Review.

2.40 The *Case for Cambridge South*, however, and the report by Creative Places identify that CBC does not currently fulfil its potential as a fully-fledged Innovation District and that it faces increasing international competition from global locations able to offer the full range and scale of facilities attractive to globally footloose Life Sciences investment.

3 The Need for Growth at CBC

- 3.1 The *Case for Cambridge South* explains how the *2020 Vision* guided the establishment of the Biomedical Campus and created the framework for its remarkable expansion and success. The vision at that time was recognised as being sufficiently important to release land from the Green Belt and fundamentally reshape the southern fringe of Cambridge. That vision has now run its course, CBC has exceeded its original promise and the Campus is virtually full. It is time for a new vision, but the future can now be approached with even greater conviction – there is no need to speculate about aspirations for growth, CBC is a reality and the need for world class investment in health-based research and discovery is undeniable.
- 3.2 Government policy could not be more supportive of the principle that the UK must make the most of its leading advantage in Life Sciences, which it identifies as one of the most important sectors for the future of the UK economy.
- 3.3 The *CBC Vision 2050* articulates the need for the expansion and diversification of CBC and it does so using the insight of those uniquely qualified to understand its needs. The *Case for Cambridge South* encapsulates the Vision but also identifies the urgency of meeting it. CBC faces unprecedented global competition for investment. This report does not repeat that analysis, but it does draw attention to the fact that Cambridge competes on behalf of the UK against global competition (rather than against other locations in the UK). This was specifically identified in Dame Kate Barker’s CPEIR report, which recommended:
- “The UK Government should adopt a ‘Cambridge or overseas’ mentality towards knowledge-intensive (KI) business in this area, recognising that in an era of international connectivity and footloose labour, many high-value companies will need to relocate abroad if this area no longer meets their needs. Ensuring that Cambridge continues to deliver for KI businesses should be considered a nationally strategic priority.”*
- 3.4 In applying that priority, the *CBC Vision 2050* is clear that change is necessary at the Campus as well as expansion if CBC is to compete with the best in the world.

The CBC Vision 2050

Addressing existing constraints

- 3.5 The *CBC Vision 2050* is clear that “*over the next three decades, the Campus must be transformed so that it can continue to lead the world in Life Sciences as a thriving innovation district.*” The original strategies for development did not foresee the demand from businesses for placemaking. The Vision explains (on page 25) that much of the aspiration for shared and amenity space has not been realised. CBC has added essential infrastructure to accommodate growth but the pace of growth has limited the ability of the partners to curate the integrated, appealing quarter CBC needs to be to enable innovation.
- 3.6 As the Creative Places report sets out, the take up of land at CBC has accelerated in the last 5 years and the rapid pace of development has resulted in occupiers operating in isolated buildings with limited scope for networking, joint working, spillover communal spaces or shared

amenities. The collaboration that Life Sciences is heavily reliant upon has been able to happen at CBC to some extent, but the nature of the built form on the Campus does not currently lend itself to supporting that collaboration to its fullest potential.

3.7 The Creative Places report anticipates that the remaining floorspace at the Campus will be absorbed by the mid-2020s. Attempting to satisfy the need for ancillary business floorspace to accommodate spin-off companies and supporting businesses, or the demand for hotel provision, conference space and supporting childcare and community facilities within the Campus itself would severely limit the land available to add to the cluster of internationally important research businesses and institutions. Demand for these services is set to increase as Phases 2 and 3 of CBC are developed, but there is insufficient space onsite for them to be accommodated and the land that is available is already subject to high levels of demand.

3.8 By contrast, the Vision recognises that its future requires evolution into a more integrated environment, as an innovation district:

“Innovation districts demonstrate a new relationship between economic activity, place making and networking. Open innovation rewards collaboration and innovative organisations and workers require the proximity that allows the quick and seamless exchange of knowledge, ideas, intellectual property and projects. Science parks co-locate firms but true innovation districts demonstrate a mixture of organisations co-located in strong environments built to support collaborative activity while also providing good places to live and work.”²⁵

3.9 As the Creative Places report demonstrates, the role CBC should be playing in leading the country’s growth in biomedical science will be severely constrained unless space for complementary expansion is provided for in a well-connected sustainable location in immediate proximity to the Campus.

3.10 The Vision is clear that, part of that necessary mix requires CBC to evolve as a mixed working and living community. The institutions and businesses based at CBC all have important roles as key local employers, but the existing deficiencies in onsite services, facilities and a lack of nearby housing accessible to many mean that the Campus and its neighbourhood is not able to meet the needs of employees. The rise in housing unaffordability and the lack of supply of housing locally have impacted on access to housing for CBC employees, many of whom are key workers or recent graduates, with earnings that do not give them the chance to buy into the general local market or secure private rented accommodation near to their place of work. The Creative Places report studies these local constraints and confirms that analysis. It also recognises that the best innovation districts around the world increasingly offer a mixture of housing and support services on or adjacent to the Campus for employees and their families. Doing so not only enhances the wellbeing and quality of life for workers, it also adds to the vibrancy of a truly collaborative place.

Principles for future growth

3.11 The *CBC Vision 2050* sets out CBC’s aspirations for the future of the Campus. The Vision promotes the development of the Campus into one of the best places in the world to work in health and Life Sciences, underpinned by the evolution of CBC into a vibrant community in its

²⁵ Page 20, *CBC Vision 2050*.

own right. It seeks to build on CBC's success as a centre of excellence for healthcare provision in the UK and as a global innovation hub, using its collection of institutions and businesses to propel further success at an international level.

3.12 The **CBC Vision 2050** defines the characteristics of places where collaboration works most effectively to understand how these can be applied to both the existing Campus and the future expansion land. The urban form needs to be built and managed in a way that best encourages collaboration, engagement and the shared sense of purpose to strengthen the networks that CBC supports and serves. Failing to address existing qualitative deficiencies will limit occupiers' ability to attract and retain talent and limit the quality of collaboration that should be central to CBC's success.

3.13 In order to achieve this, the *CBC Vision 2050* identifies that an expanded Campus should take on the following form:

- *"A mature Campus, with a wide range of complementary spaces for business, research and healthcare institutions,*
- *A connected place, with enhanced physical and digital links to other local and international centres of research and clinical excellence,*
- *A 20-minute neighbourhood, integrated into its community, where people can enjoy a healthy environment and a high quality of life,*
- *A fully functioning urban extension to Cambridge, with a mix of business, residential and supportive infrastructure,*
- *An engine of economic growth, creating jobs and improving productivity locally and throughout the UK."*²⁶

3.14 Addressing future growth needs and the shortcomings of the Campus requires the provision of floorspace on the expansion land. Principles of good placemaking, sustainability and productivity will be applied to the existing Campus alongside its future expansion in order to achieve its transition into a fully-fledged innovation district.

Growing sustainably

3.15 The *CBC Vision 2050* identifies the foundations and components necessary for sustainable growth. In addition to further commercial R&D space, the vision identifies a number of specific requirements.

i.) New hospitals

3.16 Development of a new cancer hospital, a new children's hospital and continued redevelopment of Addenbrooke's will increase the range of specialisms onsite and provide further opportunities for teaching, research and innovation as part of a movement to match academic

²⁶Page 7, Cambridge Biomedical Campus Vision 2050: Creating a Life Sciences quarter for Cambridge. Cambridge Biomedical Campus, January 2021.

expertise. Investing in and replacing ageing infrastructure as healthcare provision evolves will strengthen the offer of CBC, enhance health service provision to its substantial catchment population and provide the basis to drive the continuing growth of the Campus. Some of this can be achieved on land reserved on the existing Campus, but future requirements exceed the floorspace that is available. Expansion adjacent to the existing Campus is the most effective way to deliver future clinical development needs, integrated with the existing centre of excellence. ii.) Further research centres

- 3.17 The Laboratory of Molecular Biology at CBC is one of the world's most important research centres and is a testament to the research strength of CBC alongside The University of Cambridge School of Clinical Medicine. These are magnets for staff with specialist knowledge and highly desired skills and distinguish CBC from global competitors. They are also magnets for healthcare businesses seeking to work openly and collaboratively. To stay competitive in the research sector, the Vision identifies that CBC must plan for more advanced research centres to continue to attract global talent to the Campus and to retain Cambridge's significance as a centre of international excellence for Life Sciences.

iii.) Supporting commercial uses

- 3.18 Co-location is an important part of promoting innovation, but communal spaces are also needed. These spaces allow people to meet and build relationships, provide neutral spaces to relax in, and places in which to share ideas and boost the networks on which the Campus relies.
- 3.19 CBC needs new spaces that allow those already working on the Campus to do just this. Some uses, such as coffee shops, cafés, gyms or crèches can be accommodated through intensification. However, uses such as hotels, conference centres, collaboration spaces and business incubators need to form part of a wider comprehensive development offer that will better meet the needs of employees.

iv.) Transport and accessibility

- 3.20 CBC already benefits from access to the Cambridge Guided Bus Network and will benefit from extensions to the network and from the development of the Cambridge South station onsite. Whilst CBC is the only location on the edge of Cambridge that benefits from such transport connections, further investment is necessary in sustainable modes and connections in order to convert the investment in new infrastructure into a connected, sustainable neighbourhood.

v.) Diversity of offer

- 3.21 The most effective innovation districts host a range of businesses that can share ideas and collaborate on projects in a dynamic and agile way. CBC must broaden its offer to welcome a variety of complementary businesses that can serve and benefit from its activity. There is, for example, a need for support offices as well as for logistics floorspace.

vi.) New homes and affordable homes

- 3.22 The employment opportunities at the Campus bring demands for new homes and services, which if not considered and planned for holistically can have negative impacts on existing communities through increased house prices, congestion and reductions in the quality of life. CBC's employees themselves have their own needs – they need places to live, places to spend

leisure time and places that provide the services for daily life. The Campus cannot currently serve these needs.

- 3.23 Whilst a significant proportion of CBC workers will continue to live away from the Campus, it is apparent that the shortage of suitable and affordable housing accessible to the Campus impacts adversely on the wellbeing and quality of life of workers, whilst generating longer distance commuting and creating problems of unaffordability. It also add to the difficulty of recruiting and retaining staff. These issues are set out in more detail in the Creative Places report.
- 3.24 Just as importantly, however, the absence of housing from the Campus is an important missed opportunity. It reduces its vitality and limits its ability to support a range of services and means that CBC cannot benefit from the sense of community, vibrancy and interaction that comes with a truly integrated Campus. Co-living and co-working can dramatically strengthen the Campus.

Projected need

- 3.25 The work undertaken to develop the *CBC Vision 2050* has enabled the preparation of a draft Development Brief for the expansion land.
- 3.26 The overall vision for expansion is that *“Cambridge Biomedical Campus will be globally leading and locally rooted, the preferred destination for Life Sciences, where research, commercialisation and real-world application come together to create life-saving innovation in a vibrant local community.”* The landowners have responded to that vision with plans for a comprehensive and integrated innovation district with the core Life Sciences occupiers provided with expansion space and supported by an ecosystem of complementary office, hotel, conference, retail and leisure uses, as well as new homes that can accommodate employees of the expanded Campus, together with associated community space, including schools and high-quality open spaces.
- 3.27 The derivation of the spatial requirements of the draft Development Brief is explained in the report from Creative Places and the floorspace requirements generated by the Vision can be summarised as follows:
- Provision of 4,360,000 sqft GEA (405,000 sqm) of employment floorspace, including clinical, research, commercial R&D, education, supporting office and logistics spaces, comprising:
 - 680,000 sqft of clinical floorspace,
 - 1,220,000 sqft of research floorspace,
 - 1,610,000 sqft of commercial R&D floorspace,
 - 600,000 sqft of supporting office floorspace,
 - 100,000 sqft of supporting logistics floorspace,
 - 150,000 sqft of education floorspace.
 - Provision of 5,000 homes.
 - Provision of supporting ancillary uses, including:

- 225,000 sqft (20,900 sqm) of hotel and conference space.
- 215,000 sqft (20,000 sqm) of supporting leisure and retail uses.
- Provision of 30,300 sqft (2,815 sqm) of community uses.
- Provision of 35 ha of formal and informal amenity space, embedded in wider Green Belt enhancements as well as providing critical nature network linkages to the Cambridge region.
- Provision of supporting transport infrastructure and improved transport connections.

4 Cambridge South Study Area Context

- 4.1 This section explains the physical nature of CBC in its current form. It also introduces the study area being considered for the expansion of CBC and provides information regarding its current uses and environmental constraints. It examines the changing context of the southern Cambridge area, and how a careful landscape analysis has enabled the identification of development zones, which are ideally located to enable the evolution of the Campus.

The Cambridge Biomedical Campus

- 4.2 CBC is a global leader in medical science, research, education and patient care and is one of the UK's largest centres of medical research and Life Sciences. Located on the southern edge of Cambridge, CBC lies close to the M11 and the Trumpington and Babraham Park and Rides. CBC is constrained to the north by residential development and Long Road, to the east by Hills Road and to the west by the West Anglia railway line. To the south, CBC is bordered by open agricultural land, part of which forms land allocated for the current Phase 3 of CBC's growth.
- 4.3 The development of CBC originally largely centred around the Addenbrooke's Hospital, but since 2000 CBC has expanded by 28 hectares through a phased release of Green Belt land through the Local Plan process. This has enabled the establishment of a concentration of complementary organisations, including Cambridge University Hospitals NHS Foundation Trust, Royal Papworth Hospital NHS Foundation Trust, AstraZeneca, Abcam, the Wellcome Trust, Cancer Research UK, University of Cambridge, the Medical Research Council and the Cambridge Academy for Science and Technology. The co-location of these organisations has enabled a uniquely successful environment, establishing CBC at the forefront of the Life Sciences sector in Europe and the UK.
- 4.4 The Campus principally consists of employment floorspace in the form of large standalone R&D and clinical buildings. There is no current hotel or conference centre provision onsite, and there is a limited level of retail/food provision and few shared spaces. There is no site-wide leisure or amenity provision, although a small amount is proposed within the second phase of the AstraZeneca headquarters development for AstraZeneca's own employees. There are a number of at grade and multi storey car parks onsite, and to the south of Dame Mary Archer Way lies the helipad that serves Addenbrooke's Hospital.

The Cambridge South Study Area

- 4.5 The study area lies adjacent to the southern urban edge of Cambridge, spanning the administrative boundaries of Cambridge City Council and South Cambridgeshire District Council. It comprises over 400ha primarily in arable agricultural use with very limited public access.
- 4.6 The study area encompasses land that forms two gateways to Cambridge from the south east and south west, divided by existing linear development along Cambridge Road. The Cambridge South study area is bordered to the north by Hauxton Road and Addenbrooke's Road with Trumpington and CBC beyond the local road network, to the west by the M11 and to the east by Babraham Road. To the south, the study area is enclosed by the River Cam

corridor, the King's Cross branch of the Cambridge to London Railway line, the village of Great Shelford and Hinton Way. Beyond Cambridge South to the south east land rises towards the Gog Magog Hills.

Figure 3: Cambridge South Study Area



Relationships with surrounding uses

Cambridge Southern Fringe

- 4.7 The wider southern urban area of Cambridge, which the site borders, has benefitted from a significant amount of planned growth historically. The Trumpington Meadows, Glebe Farm and Clay Farm sites were allocated in the Cambridge Southern Fringe Area Action Plan which was adopted in 2008 by South Cambridgeshire District Council and planned as part of the *Vision 2020* to complement the establishment and growth of CBC. Approximately 3,200 homes have been brought forward since 2010, extending Cambridge's south western urban boundary closer to the M11. These sites, collectively known as the Cambridge Southern Fringe, are for the most part now built out.

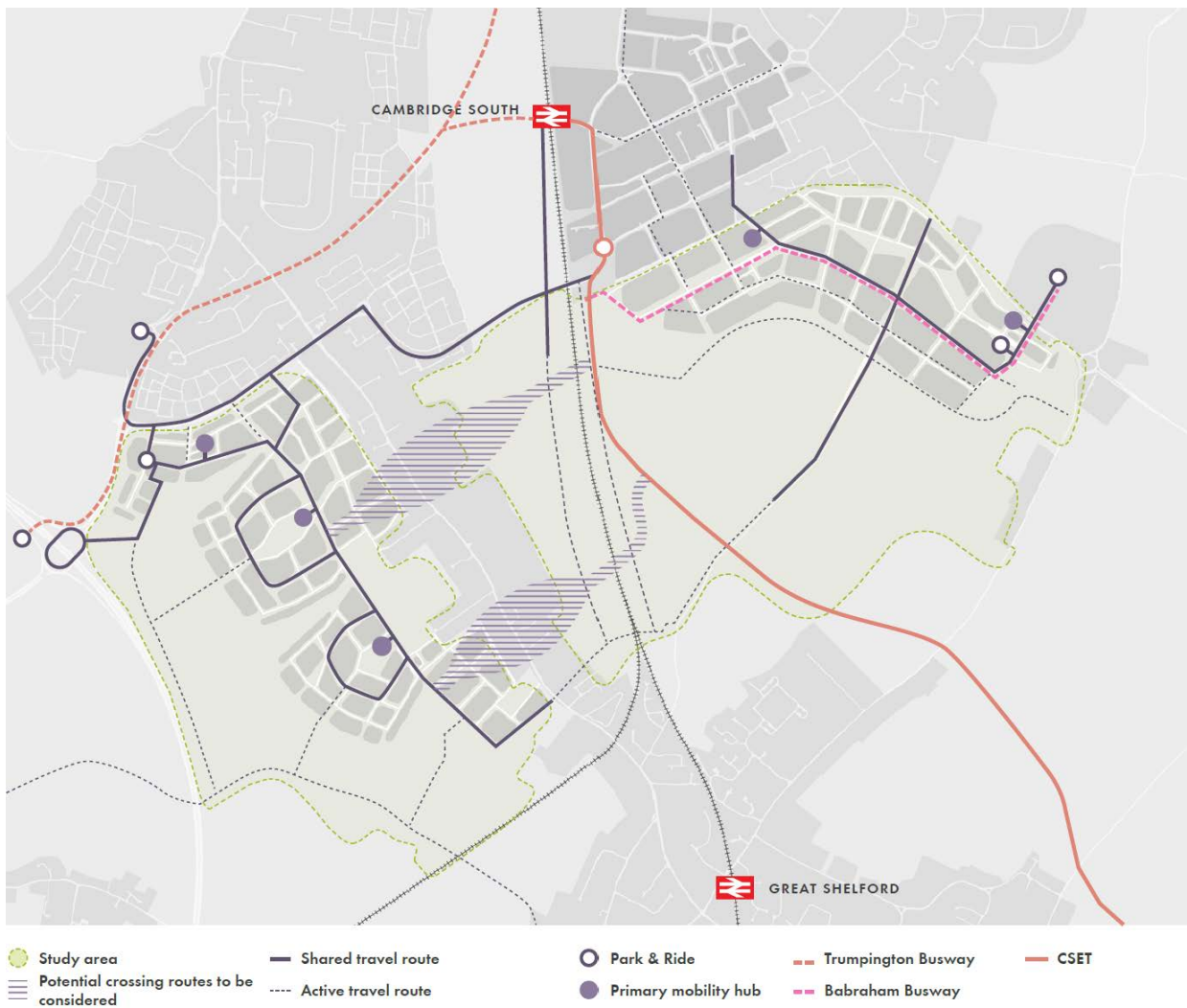
Transport connections

- 4.8 Cambridge South is close to existing transport infrastructure, including the Babraham Park and Ride, Trumpington Park and Ride and the guided busway. These facilities support the use of sustainable transport, although much more can be done to enhance local connectivity and reduce reliance on the car.
- 4.9 Cambridge South is in close proximity to a number of proposed transport infrastructure projects. The scale and location of the land means it can benefit directly from these

improvements as they are brought forward. The emerging transport infrastructure projects are detailed more fully in the *Transport Vision and Strategy* submitted alongside this report but can be summarised as follows:

- **Cambridge South East Transport ('CSET')** - the Greater Cambridge Partnership ('GCP') has consulted upon the route and location of a travel hub for a new public transport link connecting the A11 and the Cambridge Biomedical Campus. The scheme completion is targeted for late 2024. The Phase 2 route bisects the study area and new stops are proposed on land to the north and south.
- **Cambridge Autonomous Metro ('CAM')** - plans are being developed which would connect CBC with Cambridge City Centre and other settlements.
- **East-West Rail** - a new direct connection between Cambridge and Oxford is expected to be complete in the mid-2020s. The preferred route into Cambridge is from the south via the West Anglia Main Line.
- **Park and Ride improvements** - a new Park and Ride and travel hub is proposed at Junction 11 of the M11, and improvements are planned at the Babraham Park and Ride.

Figure 4: Existing and proposed transport connections



- 4.10 Immediate proximity to CBC means the study area has the advantage of being within short walking and cycling distances from employment generating uses, as well as being highly connected via the bus network. Locating complementary land uses here can reduce the pressure generated on the local road network by removing the need to travel further afield. Ease of movement is key – the wider area has good strategic links and is set to benefit from future transport infrastructure investment, but the strength of the proposals lies in the convenience of movement between the land and CBC.
- 4.11 The scale of the land allows it to meet CBC’s development requirements. Joint working with CBC will enable a carefully selected range of complementary uses to be planned, phased and brought forward so that the expansion land can operate as part of the Campus, internalising journeys and enhancing its strength as an integrated innovation district.
- 4.12 A network of active and sustainable transport connections can unite these deliberately complementary uses and allow a new form of mobility – non-car travel enabled by local living and working.

Identifying the Development Zones

- 4.13 The land within the study area is fragmented and there is currently no clear landscape structure framing or unifying the southern fringe of Cambridge. However, the land is designated Green Belt and it currently performs the important task of restricting the southern expansion of the City.
- 4.14 For the last Local Plan, the Councils instructed the preparation of the Cambridge Inner Green Belt Assessment (2015), which established the role of the land in preventing unnecessary development but also that:
- neither the western nor the eastern elements of Cambridge South contribute to the approach to the historic core of Cambridge. The western site is described as providing an approach to suburban development at Trumpington, whilst Addenbrookes hospital is said to block any visual connection with the historic city, even from elevated views across the eastern land.
 - The southern edge of Cambridge lacks a suitable Green Belt boundary – instead, the boundaries are formed by ‘hard urban edges’. The development along Cambridge Road offers its back to views from the M11, creating a continuous poor edge to the built-up area, whilst the current CBC boundary is very visible and also presents an unrelieved urban edge.
 - The area is said to lack a strategic landscape structure.
- 4.15 The Study recognised that land to the north and east of the study area sits in a landscape bowl, which contains Cambridge but that the rise in the landform from there towards White Hill and intervening vegetation are key in maintaining the separation of Cambridge and Great Shelford. Similarly, on the western side of the study area the significant landscape features are the valley corridor of the River Cam and the hard boundary formed by the M11. The flat, barren agricultural land offers open and exposed views to Trumpington and the properties on Cambridge Road in contrast with the soft green edges that generally characterise the city. These observations have helped inform the landowners’ own analysis and helped define the

opportunity through development, to create a planned, landscaped long term southern boundary to the City.

4.16 The landscape analysis is explained in Allies and Morrison’s *Draft Spatial Vision*. It uses the character and topography of the land to define two development zones within a new, strong landscaped framework.

Figure 5: Opportunities for Green Belt enhancement



4.17 At present the land at Cambridge South is arable agricultural land with very limited public access. If Green Belt land is released to enable the expansion of CBC, a positive strategy can be put in place funded by the development to transform the Green Belt. The Draft Spatial Vision shows the commitment to enhance an equivalent amount of Green Belt land for every hectare lost. Very substantial improvements can be made to the quality and use of the Green Belt by opening it up to public access and investing in landscape, biodiversity, cultural and recreational enhancements.

4.18 These improvements would connect the Cam river corridor and White Hill in particular to the residential neighbourhoods of Cambridge and Great Shelford and form an enhanced, sustainable long term Green Belt boundary.

4.19 The new landscaped framework would also help to establish identifiable access points or gateways to the City at both Babraham Road and Hauxton Road. The successful transition from treed approaches to urban streets that are characteristic to Cambridge can be created through the careful placement of green buffers and buildings.

5 Development Proposals

- 5.1 The draft spatial framework proposes the delivery of two development zones formed by a new landscape structure that will form an enhanced, sustainable long term Green Belt boundary. The landowners' proposals are developed and explained in the *Draft Spatial Vision* but summarised here.
- 5.2 The proposals are draft – some flexibility will be necessary as the Campus responds to changing pressures and opportunities and any proposals will be the subject of extensive consultation – as well as examination through the local plan process and subsequent planning applications. However, the principles proposed are explained here.
- 5.3 Whilst the various components are explained in turn, the overriding intention is the creation of a fully integrated, mixed use neighbourhood where different land uses complement each other and work together to host a vibrant community that functions as a high quality innovation district.

Employment floorspace

- 5.4 The proposed employment floorspace, which comprises clinical, research, commercial R&D, education, logistics and support office uses would be concentrated in two locations within the study area. The principal expansion of employment space would be planned in the eastern zone as a direct expansion of the current Campus. Many of these uses will benefit from immediate proximity to encourage maximum interaction but even then, the current characteristic concentration of major employment sites would be broken down with shared public realm, cafes, amenities and shared space.
- 5.5 Facilitating an inclusive innovation ecosystem will require a density of development that promotes connectivity between institutions. The new employment uses would be curated to bring activity and interest to public spaces, helping to express the character and values of a collaborative neighbourhood. Support and amenity spaces that encourage networking, knowledge spill over and innovation would be integrated within the expanded Campus to provide a richer experience for Campus employees and visitors. Car free and car restricted environments would enhance integration.
- 5.6 To address current shortfalls in R&D floorspace onsite and to support an innovation district that meets the needs of potential future occupiers, floorspace would be provided across a range of sizes. Where previous occupiers of CBC have largely been established institutions, flexibility and resilience comes from the ability to attract occupiers at different parts of their life cycle. Provision of a range of sizes of floorspaces with flexibility in leases and floorplates allows for spin-off companies to develop side by side with the institutions that have inspired them.
- 5.7 A smaller employment cluster in the western development zone would be included within the masterplan with the same principles as the east. It will attract businesses who regularly interact with the core cluster but who do not need to be in it. This can include a range of business types from support offices and services to institutions or organisations that seek their own space and identity. Private hospitals are one example but there any many public and

commercial Life Science uses for whom a location with immediate connection to CBC (rather than directly in the core) would be highly attractive.

- 5.8 The western development zone would also accommodate a micro consolidation centre where it would have direct access to the M11 junction in order to intercept and consolidate freight and deliveries to CBC. Uses can be planned here which would remove the need for vehicles to use Addenbrooke's Road and free the road to be better laid out for public transport, cycling, walking and (potentially) autonomous vehicles used as shuttles for shared travel.

Supporting ancillary uses

- 5.9 Provision of supporting ancillary uses is proposed to create a more comprehensive offer to support the operation of CBC. These would include provision of a hotel, a conference centre, and supporting retail and leisure uses.
- 5.10 The need for associated support activities for CBC has previously been acknowledged in local planning policy, with the Cambridge Local Plan 2018 providing support for uses including a hotel, seminar conference centre, small scale A1 (local shop), A3 (café), A4 (public house) and D1 (crèche) type uses, on the basis that these are acceptable to meet the needs of employees and visitors and to add to the vibrancy of the area.²⁷

Hotel and conference centre provision

- 5.11 CBC does not currently have any facilities large enough for conferences or to showcase the activities of its occupiers. The nature of the work at the Campus, however, is such that it attracts worldwide interest and that its mission requires dissemination of its knowledge. The absence of a hotel for visitors and of conference facilities has long been seen as an omission and a handicap. Conferences are a key facilitator of formal and informal engagement and the absence of facilities obliges occupiers to travel, often to London for events which would be far better held in Cambridge. To address this onsite deficiency a conference centre is proposed to strengthen the existing connections between occupiers onsite as well as to encourage new relationships to form. Hotel provision would support conferences whilst also serving other business visitor needs.

Retail and leisure provision

- 5.12 Supporting retail and leisure uses will go some way to meeting the needs of CBC employees, whilst also creating the type of dynamic, mixed-use spaces that can serve to attract future occupiers and employees to CBC. Provision of retail and leisure uses also reduces the need to travel elsewhere or offsite to meet employee needs and can contribute significantly to the overall improvements in the quality of life at the Campus.

Transport infrastructure

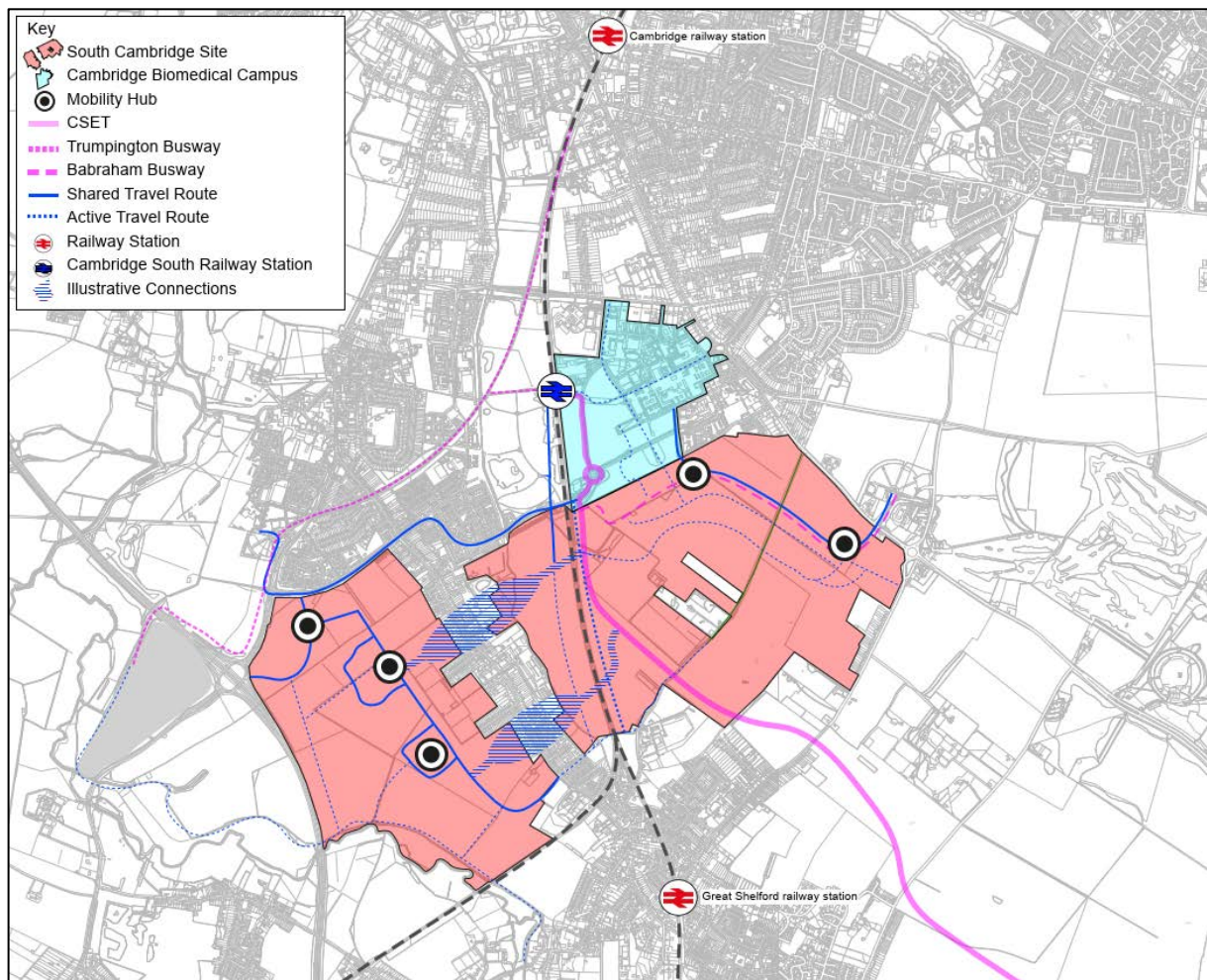
- 5.13 Development of the scale proposed must have sufficient transport infrastructure to support its needs and this is particularly pertinent for CBC as the local road network in the southern part

²⁷ Policy 17: Cambridge Biomedical Campus (including Addenbrooke's Hospital) Area of Major Change. Cambridge Local Plan, 2018. Cambridge City Council.

of Cambridge struggles with congestion. New investment can address existing constraints and bring a transformational approach to mobility at the Campus.

- 5.14 The *Draft Spatial Vision* embeds principles of sustainable living through a reduction in car use to inform the masterplan. Vectos' *'Transport Vision and Strategy'* forms part of this submission and outlines the vision for the future mobility of an expanded CBC.
- 5.15 In recognition of the need to reduce the number of cars on the road at CBC and in southern Cambridge, the masterplan has been developed to provide alternatives to car-based travel and to reduce car dependence. The overarching mobility strategy incorporates the following principles:
- Provision of a mixed-use development in line with 20-minute neighbourhood principles, where residents do not need to leave the wider site to get to work, school or the shops, in turn reducing pressure on the wider road network in southern Cambridge,
 - Designing residential development to meet the specific needs of Campus workers but also to enable home working or shared, local working,
 - Limited residential car parking provision,
 - Consolidated staff and visitor car parking, supported by managed shared transport between key locations, reducing the number of cars needing to access CBC,
 - Active travel corridors prioritised, enabling seamless movement around the site,
 - Mobility hubs and community concierge facilities to support localised car-free movement, car sharing instead of ownership and access to sustainable and active forms of travel, and
 - Provision of a micro-consolidation centre and supporting logistics floorspace closely located adjacent to the strategic road network which will reduce the number of heavy and other goods vehicles accessing CBC.
- 5.16 A reduction in car use is paired with a proposed transport network that supports active and sustainable travel, through the provision of walking and cycling routes within and between the development zones. Coupled with enhanced public transport, the connections and the deliberate co-location of supporting land uses enable a new approach to mobility.

Figure 6: Illustrative Location of Primary Mobility Hubs



- 5.17 Strategies such as reducing residential car parking ratios and providing consolidated parking and freight facilities will reduce the need to travel and reduce the use of the car. Concierge services and travel hubs will allow travel demands to be understood and responded to with flexible shared travel, car sharing and cycle hire.
- 5.18 Cambridge South is ideally located relative to CBC and to existing and emerging mobility corridors. These qualities create the opportunity for much greater internalisation of trips and the transport modelling undertaken so far and reported in the *Transport Vision and Strategy* suggests that CBC expansion can be delivered without adding to car trips on the local highway network (the so-called 'trip budget' approach which has become an aspiration of the local authorities).
- 5.19 The alternative to consolidating the requirements arising from CBC's expansion is a dispersed approach to employment and housing, which could only add to existing problems of excess carbon and congestion.

Housing provision

- 5.20 Cumulatively the uses proposed can add to the development, facilities, amenities and strength of CBC through investment in place making, complementary commercial uses, social infrastructure and transport solutions. However, unless these are underpinned by the vital residential development proposed, worker recruitment, retention and quality of life will be severely stained, and the true potential of the Campus will not be secured.
- 5.21 To address this demand for growth, the draft Development Brief proposes 5,000 new homes to be provided onsite. This provision equates to a home for 30% of the future employees of the expanded CBC, although it will also be attractive to many who already work at the Campus. With an existing workforce of 20,000, which is already forecast to grow by another 7,000 employees, even greater provision could be beneficially located here if the land area allowed.
- 5.22 Cambridge South is ideal for this purpose – close enough to be easily walkable to and from the Campus but not within the heart of the Campus itself. Creating a living community as part of the expanded CBC will add enormously to CBC’s sense of place, vibrancy and community. Whilst CBC adjoins existing residential areas, the evidence set out in the Creative Places report is that there is a severe shortage of suitable, affordable and local homes for workers at the Campus. Enabling local living would add substantially to the wellbeing of workers, whilst enhancing the nature of the Campus and facilitating recruitment for CBC occupiers.
- 5.23 The proposed housing mix is set out in the table below. It is very much draft at present and its precise composition will be informed through engagement with CBC employers, curated to best serve the needs of the Campus.
- 5.24 The housing mix proposed is in part oriented towards the identified needs of the hospital workers, as established in research undertaken by Savills for the hospitals. The suggested mix balances the standard local plan policy mix with the known need at the hospitals for smaller units and is intended to approximate to the optimum mix to meet the diverse needs of Campus workers. This proposed housing mix is, of course, subject to further discussion with GCSP.

Table 3: Proposed Housing Mix

Size of unit	Campus-focused homes	Local Plan policy compliant homes	Overall site housing mix	Overall provision
1	40%	20%	30%	1,500
2	20%	20%	20%	1,000
3	25%	30%	27.5%	1,375
4	15%	30%	22.5%	1,125
Total	100%	100%	100%	5,000

- 5.25 Provision of a high proportion of 1 and 2 bed homes much more effectively addresses the nature of need faced by CBC than a standard housing mix. The tenure mix will also need to recognise the specific needs of research staff or those in flexible or short-term roles. Provision of 50% of dwellings at a Local Plan policy compliant mix allows for the development to

accommodate the needs of non-hospital CBC workers, many of whom may earn above affordable housing thresholds or may be looking for larger properties.

5.26 In order for housing provision to fully support growth at CBC, it needs to be secured to specifically address the requirements of those who work at the Campus. A variety of mechanisms are intended for use to control housing provision. CBC employees will be prioritised for sales, lettings, re-sales and re-lettings so that housing continues to meet CBC demand in the longer term. Housing will also be subject to controls over third-party investors, so homes are occupied by local key workers and are not used as second homes or buy-to-let properties.

Key worker housing

5.27 Currently, 40% of the homes are proposed to be affordable housing, with tenure mixes and rental levels to be set to respond to the needs of CBC workers. A core part of the development offer is the provision of CBC-specific affordable housing. Affordable housing provided at Cambridge South would make a significant contribution towards CBC’s housing need, which in turn would lessen pressures on local housing need. A draft tenure mix is illustrated below.

Table 4: Indicative housing tenure mix

Tenure	Size of unit				Total
	1 bed	2 bed	3 bed	4 bed	
Market	900	600	825	675	3,000
Intermediate	240	160	220	180	800
Social rented	360	240	330	270	1,200
Total	1,500	1,000	1,375	1,125	5,000

5.28 The draft tenure assumptions show a provision of 40% of homes as affordable, with a 40:60 split between intermediate and social rented tenures. The Savills report findings indicate that there is a significant proportion of CBC workers that earn above the £25,000 threshold for affordable housing, but below the £40,000 minimum that would enable a comfortable move into the private sector. Intermediate housing provision is therefore a key part of the housing offer proposed, allowing those on medium incomes to access suitable residential accommodation.

5.29 Noting the specific needs of CBC employees, the specialist housing offer may include:

- ‘Landing pads’ enabling new starts to find their feet with fully furnished space on flexible terms without large deposits,
- Specially designed 2 and 3 bed shared apartments with en-suites and appropriately sized kitchen and living spaces,
- High quality professionally managed apartments and houses for rent offering longer tenancies,

- Homes for sale of different sizes across a range of prices to meet the needs of first-time buyers through to families and those on higher salaries.

5.30 A mix of rental and sale homes is proposed in response to housing need. To ensure that sale and rental properties are equally as accessible, a variety of types of financial opportunities for accessing residential accommodation are under consideration. This could include properties available for outright market sale, part rent part sale, discount market rent and sale, deposit assistance, and low-cost rent, addressing the affordability demands across the range of salaries at CBC.

5.31 As housing is specifically tailored towards meeting an identified need it is not constrained by typical market absorption rates that restrict the speed of delivery of private sector homes. Housing can therefore be built at speed, more quickly meeting the needs of CBC, whilst also not flooding the wider Cambridge housing market.

Community uses

5.32 Social infrastructure and community uses form a key part of the supportive environment for clusters and innovation districts, acting as the connecting mechanism between the different types of uses and the different needs of users onsite. Social infrastructure is particularly important for residential communities, but integration of homes and jobs allows the infrastructure to be used and made available to workers and occupiers as part of a truly integrated community.

5.33 An initial assessment of likely community uses and social infrastructure requirements generated by the 5,000 homes proposed has been carried out. The testing is based on the indicative proposed housing mix at this stage and will be subject to further discussions with GCSP. The tables below provide a summary of the likely childcare and education requirements generated and of the other social infrastructure intended.

Table 5: Summary of childcare/education requirements

Age Group	Detailed yields applied
Pre-school (0- to 3-year-olds)	c.1,070 children
Primary (4- to 10-year-olds)	c.1,210 children (equivalent to 5.8FE)
Secondary (11- to 15-year-olds)	c.790 children (equivalent to 5.3FE)

Table 6: Summary of other social infrastructure requirements

		5,000 homes
Population (based on an average household size of 2.2 people per household)		10,927 people
Primary healthcare demand	GP demand	6 FTE GPs
	GP practice size	C. 1,275sqm
Sports and open space	Outdoor sports	17ha
	Formal play space	4.4ha

	Informal play space	4.4ha
	Informal open space	4.4ha
	Allotments and community orchards	4.4ha
	Total outdoor and open space	35ha
Indoor community facility	Library space	c.330sqm
	Indoor community space	c.1,210sqm
Indoor sports facilities	Indoor bowls	0.13 centres
		0.79 rinks
	Sports halls	0.74 halls
		2.97 courts
	Swimming pools	0.53 pools
		2.10 lanes

Green space and open space

- 5.34 Green infrastructure with a strong sense of nature is an essential principle of the *Draft Spatial Vision* and it will be apparent both within the expanded Campus but also in the landscaped setting which encloses the expansion.
- 5.35 The proposed development generates a significant green space and open space requirement. Provision of green space and open space helps support the achievement of a high-quality place to live, promoting healthy and active lifestyles in proximity to nature. It also supports the reduction of carbon emissions as leisure and recreation uses can be met within the site.
- 5.36 The *Draft Spatial Vision* has been underpinned by a commitment to Green Belt enhancement which in turn has influenced the form and distribution of development proposed. This principle has guided the provision of a level of accessible open space which goes beyond policy requirements. It has also informed the development of green infrastructure strategies for the wider study area that respect and celebrate significant assets such as the Nine Wells Nature Reserve and offer strategic biodiversity improvements and extensive habitat enhancement.
- 5.37 Enhancements to the Green Belt will be designed for wildlife, recreation and landscape value and will be delivered through a phased approach to ensure development at Cambridge South is appropriately mitigated at every stage.

5.38 These principles are set out in the Draft Spatial Vision, whilst section 6 of this report addresses the environmental constraints and opportunities offered by the expansion proposals.

Figure 7: Illustrative masterplan



Masterplanning principles

5.39 The spatial requirements have been used by Allies and Morrison to establish the *Draft Spatial Vision* masterplan that forms part of this submission. The *Draft Spatial Vision* seeks to bring forward the overall vision for the site. To inform the *Draft Spatial Vision* a series of masterplanning principles have been developed:

- **Principle 1 – a welcoming piece of city.** The *Draft Spatial Vision* envisages growth to create a sense of arrival and to support a network of streets and open spaces with development connected and permeable to its surroundings.
- **Principle 2 – complete at every stage.** The *Draft Spatial Vision* has created a strategy for enlivenment from day one to add life to CBC in its current form, with a phased implementation that also facilitates long term plans.
- **Principle 3 – nurturing future growth.** Development shall be well defined and flexible and shall comprise simple plots with fronts, backs and sides. CBC will be easy to navigate yet interesting to explore and discover.
- **Principle 4 – made up of meaningful places.** Expansion shall create places to eat, linger, collaborate and have fun, creating moments of intensity and activity.

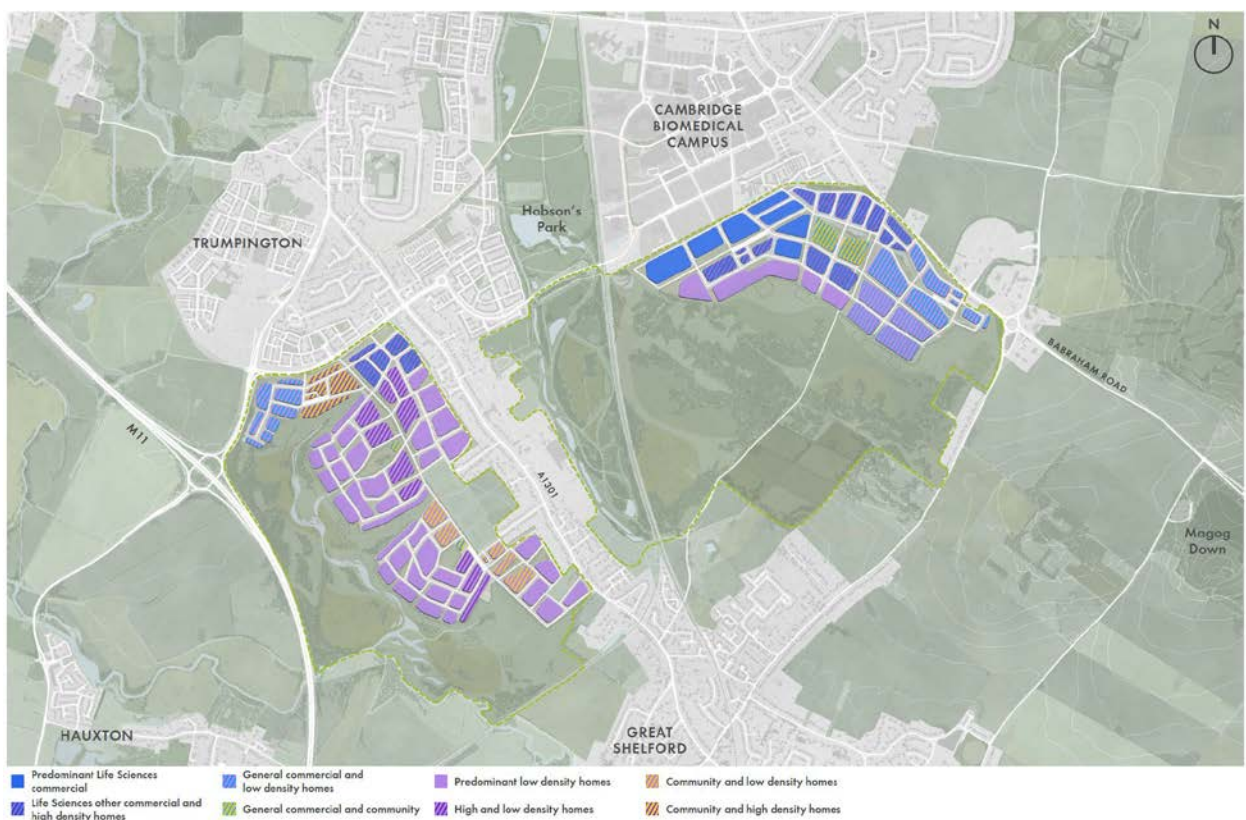
Development will be inclusive and open to people that work at CBC and to the people living nearby.

- **Principle 5 – wellbeing beyond walls.** The *Draft Spatial Vision* proposes development that is in touch with nature, building on local landscape character and environmental connections. Development will promote a healthy lifestyle and enable social and cultural interaction.
- **Principle 6 – a clear agenda for climate change.** The *Draft Spatial Vision* has planned development with carbon neutrality in mind, supported by active travel and a governance structure that promotes guardianship.
- **Principle 7 – a recognisable part of Cambridge.** The *Draft Spatial Vision* proposes expansion with its own character, but one that will form an exemplary extension to Cambridge and will form a bridge between the city and nature.

5.40 The proposals been heavily influenced by the need to create a place that responds to the aspirations of the *CBC Vision 2050*, in particular the need to focus on health, wellbeing and sustainability, within a strong landscape framework.

5.41 Quality of place, connectivity and high-quality urban design are non-negotiable qualities for the expanded Campus. Allies and Morrison architects describe how these qualities are to be achieved at Cambridge South in their *Draft Spatial Vision*.

Figure 8: Illustrative land use distribution



6 Environmental Considerations

- 6.1 This section summarises the conclusions reached in the *Environmental Appraisal* (prepared by Quod) that forms part of this submission and which considers the environmental planning case for growth at CBC. The Environmental Appraisal assesses the key environmental constraints and sensitivities associated with the expansion land and explores how growth at the CBC can respond in a way that aligns with the national and local objectives for clean growth and nature recovery.
- 6.2 The importance of responding to environmental sensitivities is embedded as a key principle in the draft masterplan developed by Allies and Morrison. The development proposals have been based on the need to provide an appropriate Green Belt boundary for the southern side of Cambridge, whilst also opening up the landscape for biodiversity enhancement, amenity and recreation. The need to protect sensitive environments, including habitats, heritage assets and areas of specific landscape character, has guided the approach to the scale, form and distribution of development.

Landscape (including Green Belt purpose and character)

- 6.3 Aside from its Green Belt designation, the study area and its wider landscape context are not subject to any other national, local or other landscape designations. There are a small number of listed buildings, two scheduled monuments, a Local Nature Reserve and a public right of way within the study area.
- 6.4 At a broad landscape scale, the expansion land sits within Natural England's National Character Area (NCA) 87 'East Anglian Chalk' which is characterised by remnant chalk grassland and rolling downlands mostly in arable production with sparse tree cover. As part of the preparation of the adopted Local Plan, landscape analysis was undertaken that identifies the western part of the study area and a proportion of the eastern part as lying within Landscape Character Area (LCA) 4B 'Granta Valley' within the River Valleys Landscape Type.²⁸ The southern area of the eastern part of the study area lies within the LCA 3B 'Gog Magog Chalk Hills' within the Chalk Hills Landscape Type that extends to the east.
- 6.5 A new Landscape Character Assessment (LCA) is being prepared as part of the evidence base for the GCLP. The interim draft LCA from September 2020 indicates that the western part of the study area and lower lying areas of the eastern part fall within the Lowland Claylands LCA. The River Cam valley is identified as part of the River Valleys LCA. The higher areas of ground of White Hill within the eastern part are identified as part of the Wooded Claylands LCA. The Lowland Claylands and Gog Magog Chalk Hills are identified as "*particularly vulnerable/susceptible to changes from major urban extensions than other landscape types around the edge of Cambridge*".²⁹

²⁸ Refer to the Landscape Character Assessment as part of the Cambridge Inner Green Belt Boundary Study. LDA, November 2015.

²⁹ Interim Draft Landscape Character Assessment Report (prepared as part of the evidence base for the Greater Cambridge Local Plan). Chris Blandford Associates, September 2020.

- 6.6 As described in the Councils' 2015 Inner Green Belt Boundary Study, currently "*views from the landscape east and south east of Cambridge are adversely affected by the presence of large, industrial and service buildings and structures in the railway corridor, at Cambridge Airport and Addenbrooke's Hospital. They detract from the edge and skyline of the city, and dominate the more subtle profiles of historic buildings in the historic core.*"³⁰
- 6.7 There is therefore an important opportunity to create a soft and green but robust and permanent edge to the city in this area, supporting the integration of built form into the surrounding landscape. As identified in the *Green Infrastructure Opportunity Mapping* undertaken for the GCLP, there are also a number of broad opportunity zones for the expansion land, including the opportunity for improvements to green infrastructure and linkages around the Gog Magog Hills and South Cambridge urban fringe, enhancement of the Hobson's and Vicar's Brook chalk river corridors, and urban greening and public realm improvements.
- 6.8 The proposed landscape strategy explained in the *Draft Spatial Vision* prepared by Allies and Morrison addresses these differences in landscape character across the expansion with landscape character area-specific strategies that will serve to both mitigate the impacts of future development and deliver enhancements at a substantial scale. The scale of expansion enables the CBC draft Development Brief to be satisfied as part of an integrated plan which respects important local environmental constraints, whilst enhancing access to and the settings of key characteristics in the landscape.
- 6.9 The development would deliver the following to address landscape issues within the eastern part of the study area:
- Protection of landscape and environmental features of high value through setbacks to buffer development,
 - Avoiding development on areas of higher ground, to protect areas that are identified as being susceptible or vulnerable to change,
 - Limiting of building heights, siting taller elements in sensitive views and closest to the existing urban areas,
 - Incorporation of a substantial protection zone around White Hill,
 - The enhancement of public access to the countryside through a network of connections, and
 - Management of a strategic countryside gap between development and settlements to the south.
- 6.10 The development would deliver the following to address landscape issues within the western part of the study area:
- Concentration of development within the north and the east of this area, closest to existing development, thereby screening the rear sides of existing development and creating a new landscaped edge to Cambridge,

³⁰ Inner Green Belt Study, LDA, November 2015.

- Management of a strategic countryside gap between development and settlements to the south,
- The provision of a new country park to give public access to the countryside and particularly to an enhanced River Cam corridor.

Surface water, drainage and water environment

6.11 The western part of the study area is bound by the River Cam, which is designated as a County Wildlife Site. Hobson's Brook lies between the eastern and western parcels. The flood risk across Cambridge South can be summarised as follows:

- Western area – Fluvial Flood Zone 3 (1 in 100 or greater chance of flooding) associated with the River Cam which is situated along the southern extent of the western area. Localised areas of high to medium surface water flood risk are identified in the central and western part of the western area.
- Eastern area – Flood Zone 3 extends into the north eastern corner of the eastern area, but the majority of this part of the study area lies in Flood Zone 1. This north eastern area is also subject to high to medium surface water flood risk. Detailed hydraulic modelling of the East site undertaken by Peter Brett Associates in 2016 shows that this Flood Zone 3 is due to surface water and does not therefore pose a constraint to development.³¹

6.12 The expansion land is underlain by Chalk Bedrock, which is classified as a Principal Aquifer. The study area is not located within a Groundwater Protection Zone ('SPZ') but there is a notably large SPZ situated 500m southeast of the eastern parcel. The springs at Nine Wells LNR are groundwater fed and are the main source of water for Hobson's Conduit.

6.13 Water infrastructure including water supply and wastewater capacity is recognised as an important consideration for any future development at the CBC Expansion Land, as set out in the Utilities Appraisal. At present, water supplied to Greater Cambridge through increased abstraction from the Chalk aquifer has placed the aquifer under unsustainable abstraction pressure. Longer term solutions are being explored through regional (Water Resources East) efforts although these would not be realised until the mid-2030s. To minimise pressure on water supply, the development would incorporate water efficiency measures across all uses and utilise grey / green water recycling at scale as part of any future proposals.

6.14 Relocation of the Cambridge Waste Water Treatment Works (CWWTW) is targeted for operation by March 2028 and will be designed to accommodate future Local Plan growth. From a water management perspective, the proposal for a large new neighbourhood should allow the water strategy to be designed from the outset for efficient and integrated management, rather than having to 'bolt on' to existing infrastructure.

6.15 The Environmental Appraisal identifies that protection of local water resources from pollution, including surface water runoff, is critical. The surface water drainage strategy would include a range of SuDS measures to mimic natural drainage to avoid adverse effect on watercourses and groundwater. Importantly, this would be accompanied by a commitment to land

³¹ Please refer to the Evidence regarding land south of the Cambridge Biomedical Campus Part 3 – Flood Modelling and Drainage Strategy Report. Peter Brett Associates, 2016.

management designed to protect and improve water quality which is likely to be affected currently by present agricultural practices.

- 6.16 Flooding is a key consideration for future growth and adequate climate change allowances will be applied to future flood risk and drainage strategies. Development will incorporate natural flood management, SuDS and a flood resilient design. The masterplan avoids locating development in areas prone to fluvial flood risk associated with the River Cam (in fact, the floodplain can be expanded). The areas of surface water flood risk can be mitigated through a well-designed surface water drainage strategy, with potential for mitigation to integrate with and regenerate existing watercourses.

Historic environment

- 6.17 Cambridge has a unique historical identity and is set within a historic landscape. The expansion land itself contains the Grade II Listed Nine Wells Monument, with a small number of Grade II listed buildings located close to the edge of the study area. In addition, whilst undesignated, the Hobson's Conduit / Hobson's River / Cambridge New River is a major landscape feature of high historical importance for the city and surrounding region. Three Conservation Areas, located to the south of the CBC expansion land, recognise the setting and special character of the historic settlements of Hauxton, Little Shelford, Great Shelford, Stapleford and Trumpington and form part of the rural setting to parts of the study area.
- 6.18 The study area lies within an archaeologically rich landscape with the Cambridge Southern Fringe identified as an area of archaeological significance. Two Scheduled Monuments (Settlement complex North of Hauxton and Causeway enclosure at Great Shelford) are situated in the south western part of the western area close to the River Cam, in arable fields.
- 6.19 Undiscovered archaeological remains likely to be associated with earlier settlement and land use (Neolithic, Bronze Age, Iron Age and Roman) may be relevant. The density of Prehistoric and Roman settlements in the area suggests that the archaeological potential in areas of undisturbed land is high and will therefore require careful evaluation to inform the future development design.
- 6.20 Protection and enhancement of the setting of heritage assets will be an absolute priority for future development. However, the known heritage assets within the study area would not be directly affected by any development. Green infrastructure improvements to the River Cam offer the opportunity to enhance the setting of the two Scheduled Ancient Monuments in the western part of the study area, and there is also the opportunity to improve connectivity to the Nine Wells Monument whilst respecting the role of the Local Nature Reserve.
- 6.21 It is recognised that the study area is visible in views from heritage assets, in particular Conservation Areas to the south and Scheduled Monuments located south of the River Cam, Magog Down to the south and west of Nine Wells Monument. The form of development and approach to landscaping would be designed to protect the historic character of the surrounding area. Strategies to mitigate against impacts on heritage assets include:
- Limiting the form and massing of development, to retain and enhance long distant views, particularly from the Gog Magog Hills,

- Sensitive design and strategic landscape planting across the southern boundaries of both parts of the study area to protect and enhance the setting of Conservation Areas and any Listed structures within proximity to the site,
- Archaeological investigations to understand the nature and extent of archaeological heritage, to which the detail of any future masterplans would respond.

Biodiversity, geodiversity and green infrastructure

- 6.22 The study area is largely comprised of arable land bound by hedgerows of varying quality. It is not very biodiverse, notwithstanding the general potential of arable land and hedgerows to support some protected or notable species. The eastern part of the study area contains the Nine Wells Local Nature Reserve ('LNR'). Other statutory and non-statutory designated ecological sites relevant are Sites of Special Scientific Interest ('SSSI'), LNRs, Local Geological Sites ('LGS') and County Wildlife Sites ('CiWS'/'CWS'). Due to their distance from the site, however, significant effects on any designated sites from development are not considered likely.
- 6.23 The site and wider area both contain areas of natural importance, but these are isolated sites that lack connectivity. Nature recovery opportunities therefore include connecting these isolated nature reserves and network of habitats for the benefit of biodiversity and for local residents. The wider area of chalk grasslands around the Gog Magog Hills and River Cam corridor has been identified as a strategic conservation opportunity for Cambridgeshire, and so the development will play a key role in delivering restored and connected habitats from Nine Wells LNR through to the Gog Magog Hills and wider countryside.
- 6.24 The landowners are committed to ensuring that development of the expansion land delivers at least 10% biodiversity net gain, which would be delivered through habitat enhancement within the development areas and within the substantial areas of land which are to be dedicated to green infrastructure provision. Detailed development of the expansion proposals is likely to show that this can be significantly exceeded. Development would include a strong ecological buffer to the Nine Wells LNR and will offer alternative opportunities for recreation and amenity in order to protect the LNR. Recreational needs will be accommodated through the provision of substantially enhanced green space, including a major new country park.
- 6.25 Enhancements in the western part of the study area will include improvements to the River Cam corridor through increasing the amount of wetland habitat. In providing green corridors and recreational and open space, growth at CBC would encourage delivery of Cambridgeshire's vision for Doubling Nature by creating a variety of new habitats including wetland habitats, meadows, calcareous grasslands, new copses, woodlands, hedgerows and roadside planting.

Land and agriculture

- 6.26 The majority of the study area is in use as arable land, with Agricultural Land Classification data indicating that land predominantly comprises Grade 2 (Very Good) agricultural land with localised areas of Grade 3 (Good to Moderate). The study area is underlain by chalk bedrock and is not situated within a Groundwater Protection Zone. There are no areas of historic or authorised landfill onsite and so the risk of significant contamination is limited.

6.27 It is recognised that development would result in a loss of Best and Most Versatile agricultural land. This loss is unavoidable and would occur in other locations on the fringe of Cambridge. Loss would be mitigated through appropriate reuse of soil resources on or offsite, and through maximisation of agricultural potential on remaining undeveloped land. Opportunities to integrate food growing uses as multi-functional greenspaces such as allotment gardens, orchards and grazing have been incorporated into the draft masterplan which would contribute to the green infrastructure aspirations of the emerging Local Plan.

Climate change

6.28 The principle of adapting to climate change is embedded in national, regional and local planning policy. Locally, the GCLP has declared a climate emergency and has committed to achieving net zero carbon by 2050.

6.29 Climate change is not considered to present any direct constraints to growth at CBC, in fact the form of development proposed is considered to be a highly effective way of delivering homes and employment sensitively and without the additional harm resulting from smaller, more dispersed spatial options. By virtue of the study area being located close to major public transport links, including the Trumpington and Babraham Park and Rides, the guided busway and the proposed Cambridge South station, in addition to it being integrated with a major employment destination, vehicular movements will be substantially reduced. Strategies will be implemented onsite to minimise car dependence to reduce carbon emissions further, such as the delivery of active travel routes such as footpaths, cycle paths and bridleways.

6.30 The location and layout of development will enable the principle of the 20-minute neighbourhood, which represents the ability to access all day-to-day services and facilities within a 20-minute journey by active or shared travel. Development of Cambridge South would incorporate built-in mitigation strategies to reduce embodied carbon and building energy use to near-zero.

6.31 To further mitigate climate change and minimise emissions associated with CBC expansion, development will seek to maximise the role of green and blue infrastructure. Development will:

- Incorporate natural flood management and SuDS to ensure resilience to increased risk of flooding associated with climate change,
- Integrate water efficiency measures within the masterplan,
- Provide high quality, energy efficient buildings, informed by best practice in low carbon design and construction,
- Establish a sustainable transport strategy to maximise pedestrian, cyclist and public transport provision to deliver a 20-minute neighbourhood.

Air quality

6.32 The Greater Cambridge area has three air quality management areas ('AQMAs'): one covering Cambridge city centre, one along the A14 and one along the M11. Air quality monitoring in the vicinity of the site indicates a good level of air quality at present.

- 6.33 Nearby residents, hospitals and ecological designations will be sensitive to air quality effects associated with the proposed development, as will future residents onsite. International ecological designations such as SACs, SPAs and Ramsar are sensitive to air quality changes but are of a sufficient distance from the expansion land to not be affected by the development.
- 6.34 The landowners are committed to improving health and wellbeing and are therefore seeking to deliver a development which is based on the fundamental principle of avoiding the need to travel through a unique planned mix of complementary uses and a travel strategy which is centred around walking, cycling and public transport. The development is also ideally located to support use of rail and other forms of shared and public transport.
- 6.35 The development would seek to avoid potential nitrogen deposition effects on ecological receptors associated with vehicular traffic through sensitive siting of access points, setbacks and use of landscape buffers. The implementation of a multifunctional river corridor within the western part of the study area will enhance air flow and filter out pollutants, contributing to improved air quality as well as providing green infrastructure, flood risk and amenity benefits.

Noise

- 6.36 The environment of the western parcel is heavily influenced by road traffic noise from the M11, Hauxton Road and Addenbrookes Road, and to a lesser extent the railway line on the western part's southern boundary. The eastern part of the study area is influenced by road traffic noise from the Babraham Road and the London to Cambridge railway line. Future noise sources may be introduced to the study area and surrounding context through development of emerging transport schemes such as the Cambridge South railway station and the Cambridge South East Transport scheme.
- 6.37 Mitigation against noise impacts to ensure sensitive receptors are protected and the quality of future residential amenity is safeguarded are proposed through:
- Implementation of a travel strategy as part of the 20-minute neighbourhood concept that is based on avoiding the need to travel, designed to minimise road traffic,
 - Implementation of good acoustic design principles to ensure appropriate noise conditions, with acoustic design measures integrated into the green infrastructure strategy to mitigate against noise from sources outside of the site boundary,
 - Design that places more sensitive uses closer to quieter areas,
 - Provision of carefully designed noise mitigation along the M11 and for future noise sources emerging from planned transport infrastructure schemes.

Wellbeing and social inclusion

- 6.38 As noted in the First Conversation and in Section 7 of this Planning Report, whilst Greater Cambridge overall is considered to be prosperous, there are inequalities present within the region. Cambridge has been identified as the most unequal city in the UK, and communities across parts of South Cambridgeshire face issues including limited access to services and transport.

- 6.39 Growth of CBC can positively contribute to levelling up opportunities and access for all whilst promoting healthy living, improved wellbeing and social inclusion. The expansion of CBC provides an opportunity for job creation alongside the delivery of a substantial number of new homes, including a significant number of affordable homes (c.2,000 homes). The homes would be planned and managed for CBC in response to the specific needs identified by the occupiers. The delivery of community infrastructure and supporting services, including schools, healthcare, sport and recreational facilities for residents of CBC would support the needs of the future community.
- 6.40 The proposed mix of uses and open spaces are intended to promote social interaction between new residents and existing communities around the site. New green spaces would encourage community wellbeing and support healthy lifestyles by providing spaces for play and sport.
- 6.41 Community engagement will be a key part of evolving the masterplan and will allow the existing community to help shape future proposals at CBC and help create a safe and inclusive development that meet the requirements of the area's existing and future population.

Natural resources

- 6.42 Under the adopted Minerals Plan (2011), a Minerals Safeguarded Area ('MSA') encroaches the south western corner of the western part of the study area, adjacent to the M11 and the River Cam. This is designated for deposits of sand and gravel considered to be of current or future economic importance and has been respected in the proposals. Under the Minerals and Waste Local Plan 2019 Proposed Submission Plan, small areas within the study area are identified as MSAs for sands and gravel (in the north east corner of the eastern part) and chalk (in the western part).
- 6.43 Future development will need to ensure sufficient capacity of waste infrastructure to accommodate future development. Development will also seek to use locally sourced and sustainable materials to minimise embodied carbon and mitigate climate change. Provision of waste infrastructure onsite will be delivered in line with GCSP, SCDC and CCC requirements. Opportunities to incorporate onsite sustainable waste management measures will be explored.

7 Planning Policy

- 7.1 This section provides an assessment of the draft expansion proposals against relevant planning policy principles and the emerging ‘Big Themes’ that the GCSP has proposed to guide development of the Greater Cambridge Local Plan.
- 7.2 This section also considers the justification for the release of land from the Green Belt having regard to the requirement in the National Planning Policy Framework (‘NPPF’) to demonstrate exceptional circumstances.

Principle of Sustainable Development

National Planning Policy Framework

- 7.3 The NPPF is underpinned by the principle of achieving sustainable development, which is summarised as meeting the needs of the present without compromising the ability of future generations to meet their own needs.³² Paragraph 8 defines the three overarching objectives of achieving sustainable development:

a) an economic objective – to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure;

b) a social objective – to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering a well-designed and safe built environment, with accessible services and open spaces that reflect current and future needs and support communities’ health, social and cultural well-being; and

c) an environmental objective – to contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.

- 7.4 These three objectives should be delivered through the preparation and implementation of Local Plans.³³ For Greater Cambridge, this means that the emerging Greater Cambridge Local Plan, and its Big Themes, should be aligned as closely as possible with the NPPF’s sustainable development objectives.

³² Paragraph 7, National Planning Policy Framework, 2019.

³³ Paragraph 9, National Planning Policy Framework, 2019.

Planning for sustainable outcomes

- 7.5 The extension of CBC to provide an additional c. 400,000 sqm of employment floorspace would create approximately 15,000 new jobs comprising a diverse range of roles. Growth at this scale is planned to support the long-term growth of CBC up until 2050, safeguarding its future at the forefront of the Life Sciences sector.
- 7.6 The scale of the study area offers the benefits that the nationally important objective of supporting the growth of a key centre for Life Sciences can be achieved within a sensitive, landscaped setting. The critical mass of the proposals enables investment in necessary infrastructure, whilst the quality of the location and proximity to public transport enable the development to be planned with the objective of enabling sustainable travel and of not increasing traffic on the network.
- 7.7 The proposals would also meet the social objectives in the NPPF through the provision of up to 5,000 homes, of which 40% would be affordable, supported by community facilities, health and education infrastructure, designed specifically to enhance the quality of life and experience of its population.
- 7.8 The green infrastructure strategy offers the opportunity to protect, connect and enhance important natural landscapes around Cambridge, at the same time as committing to a substantial biodiversity net gain.
- 7.9 The co-location of homes, social infrastructure and employment floorspace in such a highly sustainable location would minimise the need to travel and allow for adaptation to climate change through supporting active travel and sustainable living.
- 7.10 In summary, the expansion of CBC responds directly to the NPPF's objectives for sustainable development.

Aspirations of the Greater Cambridge Local Plan

Big Themes

- 7.11 The *First Conversation* identified the following 'Big Themes', against which the evidence base has tested the extent and spatial distribution of future growth:
- Climate change,
 - Biodiversity and Green Spaces,
 - Wellbeing and Inequality,
 - Great Places,
 - Homes,
 - Jobs,
 - Infrastructure.
- 7.12 The Big Themes are being used by GCSP to guide sustainable development in accordance with the social, economic and environmental objectives of the NPPF. Previous sections of this report have addressed each of these themes.

- 7.13 The landowners and CBC are committed to sustainable growth that respects the Big Themes identified by GCSP, and support all of those themes as non-negotiable. This includes placing climate change at the heart of the new local plan, alongside a positive vision for better places, a net zero carbon economy, social inclusion and improved wellbeing, and the creation of new and improved green spaces. The ambitions for an expanded CBC are directly aligned with the aspirations of the Big Themes.
- 7.14 Using the priorities of the Greater Cambridge Local Plan, a Sustainability Appraisal has been prepared in support of this submission that assesses the performance of the proposed development against the Greater Cambridge Local Plan's objectives. This is appended at **Appendix 1** of this Planning Report.
- 7.15 Whilst the needs of CBC can only be met adjacent to CBC, the analysis of alternative development options undertaken for the local plan (see further below) has identified the sustainability of concentrating necessary growth adjacent to the City in locations well connected to public transport. The analysis also shows that co-locating housing with employment inevitably brings sustainability benefits. The climate emergency can only be addressed through a commitment to exceptionally sustainable development. Locating growth on the edge of Cambridge through the expansion of CBC is the most appropriate way to pursue sustainable development in a location close to existing employment, services and infrastructure. Meeting the needs of the Campus within and adjacent to the Campus optimises the potential to meet the Councils' principal objectives.
- 7.16 The pattern of development promoted would enable and emphasise travel by low-carbon means, including walking, cycling and public transport - making the use of the private car redundant for many journeys. Delivering expansion at the scale proposed also allows for significant investment into climate change adaptation, sustainable infrastructure and sustainable energy solutions. The *Development Strategy Options – Summary Report* notes that locating development along existing transport nodes and the urban fringe of Cambridge will reduce the region's carbon footprint far more than by locating growth in car-dependent dispersed locations.
- 7.17 The landowners and CBC are committed to creating a development founded on major enhancements to green infrastructure. Green Belt enhancement is one of the core foundations for the *Draft Spatial Vision*, guiding the transformation of the area – an area currently low in biodiversity value – into a network of diverse green spaces that make the most of the study area's proximity to the River Cam river valley and the chalk downlands of White Hill and the Gog Magogs. Landscape design strategies can encourage biodiversity whilst also meeting other functional requirements, such as the provision of open space and the creation of resilient new habitats.
- 7.18 These enriched green spaces will be on the doorstep of the new community, creating a strong sense of nature and providing a high-quality environment that supports easy access to recreation. But the development can go further by enabling public access and enhanced settings to celebrate key features of the natural environment.
- 7.19 A high-quality environment that promotes wellbeing and equality will also be achieved through the provision of a range of homes designed to meet the needs of those at the CBC across the income spectrum. These homes will be supported by high quality infrastructure, community

facilities and substantial open space provision developed at the same time as housing is built to support the growth of a new community in the best way possible.

- 7.20 The *CBC Vision 2050* has placemaking at its heart, seeking to create a well-designed development with a distinctive character. The *CBC Vision 2050* looks to establish CBC as an integrated new urban quarter of Cambridge that increases innovation and commercial opportunities, and the landowners and CBC are committed to delivering future development that creates one of the world's most attractive and welcoming places to live, visit, research and work in.
- 7.21 The expansion of CBC offers the opportunity to provide up to 5,000 homes on the edge of Cambridge. The nature of the proposed provision has been carefully considered and a tailored range of house types, sizes and tenures is proposed to address the identified housing needs of CBC. Most importantly, expansion provides the opportunity to deliver a substantial number of affordable homes of a balance of tenure types, addressing housing need where it is at its most acute. The homes will support the employment offer at CBC and reduce existing challenges of staff attraction and retention for CBC occupiers.
- 7.22 The location of CBC and proximity to existing and proposed public transport infrastructure means that the land identified for expansion benefits from wider cumulative transport and infrastructure provision. The extent of growth proposed allows for the provision of transport infrastructure at a level sufficient to address the needs generated by new development whilst also managing existing patterns of movement to reduce their transport and climate impacts.
- 7.23 CBC in its current form faces challenges through congestion on the local road network. The proposed development therefore has had to look further than allowing additional road-based movements to be created. The Transport Vision and Strategy together with the *Draft Spatial Vision* propose a step change towards sustainable and active modes of transport.
- 7.24 Other types of infrastructure are just as important as transport infrastructure - the expansion of CBC is of a scale large enough to also deliver the schools, healthcare provision and community facilities required to support any new communities alongside meeting the existing needs of CBC and wider southern Cambridge area. Only when these are provided comprehensively is development truly sustainable.

Green Belt release

- 7.25 The areas identified for expansion are located in the Cambridge Green Belt. Future growth is therefore dependent on the release of land from its current Green Belt policy designation through the Greater Cambridge Local Plan. This section considers the case for releasing Green Belt land to the south of CBC and how the proposed development would create a long-term suitable boundary for the City.

National Planning Policy Framework

- 7.26 The principle of the establishment, protection and alteration of Green Belt boundaries is set out at paragraph 136 of the National Planning Policy Framework ('NPPF'), which states:

“Once established, Green Belt boundaries should only be altered where exceptional circumstances are fully evidenced and justified, through the preparation or updating of plans. Strategic policies should establish the need for any changes to Green Belt boundaries, having regard to their intended permanence in the long term, so they can endure beyond the plan period.”

7.27 The **exceptional circumstances** policy test that needs to be met for land to be released from the Green Belt should be assessed through the Local Plan process. The NPPF provides that the test is considered met if there is a need for development that cannot be met elsewhere. Local planning authorities must be able to demonstrate that they have fully examined all other reasonable options, including making use of suitable brownfield sites for meeting the identified need for development before seeking to release Green Belt land.³⁴

7.28 The NPPF is clear that Green Belt locations can be reviewed in response to the need for sustainable development, and where it has been shown that it is necessary to release Green Belt land for development, authorities must have regard to the need to promote to sustainable patterns of development. Paragraph 138 of the NPPF states:

“When drawing up or reviewing Green Belt boundaries, the need to promote sustainable patterns of development should be taken into account. Strategic policymaking authorities should consider the consequences for sustainable development of channelling development towards urban areas inside the Green Belt boundary, towards towns and villages inset within the Green Belt or towards locations beyond the outer Green Belt boundary. Where it has been concluded that it is necessary to release Green Belt land for development, plans should give first consideration to land which has been previously-developed and/or is well-served by public transport.”

7.29 Paragraph 138 also states that, where it has been shown that it is necessary to release Green Belt land for development, plans should set out ways in which the impact of removing land from the Green Belt can be offset through compensatory improvements to the environmental quality and accessibility of remaining Green Belt land.

Local Planning Policy – Assessment of Spatial Options for the Distribution of Growth

7.30 The restrictive nature of the Green Belt on Cambridge’s growth was acknowledged in the Joint Local Planning Advisory Committee Report of 24th November 2020, where the GCSP recognised that:

“The Green Belt restricts growth on the edge of Cambridge, a location that the evidence indicates has sustainability advantages in terms of access to jobs and services and reducing trips by the private car that could help mitigate our climate impacts.”³⁵

7.31 In preparing the Greater Cambridge Local Plan, GCSP has assessed eight different spatial growth options, which include proposals to locate growth on the edge of Cambridge in the Cambridge Green Belt. The GCLP Development Strategy Options Summary Report prepared as part of the Greater Cambridge Local Plan evidence base published in November 2020

³⁴ Paragraph 137. National Planning Policy Framework.

³⁵ Paragraph 25. Joint Local Planning Advisory Group Committee Report, 24th November 2020.

considers the various spatial options proposed in the First Conversation and also identifies two further spatial options. The growth options considered are as follows:

- Option 1: Focus on Densification of existing urban areas
- Option 2: Focus on Edge of Cambridge: outside Green Belt
- Option 3: Focus on Edge of Cambridge: Green Belt
- Option 4: Focus on New Settlements
- Option 5: Focus on Dispersal: Villages
- Option 6: Focus on Public transport corridors
- Option 7 (new): Focus on Supporting a high-tech corridor by integrating homes and jobs (southern cluster)
- Option 8 (new): Focus on Expanding a growth area around transport nodes (western cluster)

7.32 The November 2020 Committee Report also summarised the *Housing Delivery Study Interim Findings*, which found that options which mix short-medium term sources of supply (smaller sites in urban areas and villages) with longer-term sources (new settlements, urban extensions and Green Belt release) are better able to perform across the plan period. The testing of options in the evidence base documents for those larger scale sources of supply provides a clear guide to the identification of the most sustainable solutions.

Option 1

7.33 Option 1 (Densification of existing urban areas) scored highest when considering the carbon emissions of development and the Big Themes identified in the GCLP, but the *Development Strategy Options – Summary Report* noted the difficulty in identifying sites of sufficient scale or capacity for densification within urban areas. Smaller scale developments would also offer fewer transformational opportunities for sustainable infrastructure.

7.34 The evidence base published by the GCLP in November 2020 found that, even for the modest growth scenarios tested, there is insufficient capacity within the built-up area to accommodate the full extent of development needs. The inability of the urban area of Cambridge to meet the development requirements of future growth scenarios therefore creates two potential scenarios: dispersal of growth away from Cambridge beyond the Green Belt or the release of Green Belt on the edge of Cambridge.

7.35 The *Development Strategy Options – Summary Report* concluded that any of the spatial options that disperse growth away from Cambridge beyond the Green Belt would prejudice the ability of the GCLP to meet the Council's net zero agenda. The work found that allocating housing away from existing employment clusters simply served to exacerbate local transport network pressures, including increasing carbon emissions, as well as lowering quality of life through increased journey times. The dispersal options, therefore, scored very poorly against sustainability criteria with the result that the Local Plan could not meet its own objectives through a strategy based on dispersal.

7.36 In order to achieve net zero and meet the sustainable priorities of the Big Themes, growth must therefore be concentrated in the most sustainable locations on the edge of Cambridge,

enabled by the selective release of land parcels from the Green Belt. The evidence base work undertaken establishes the principle that Green Belt release is a necessary feature of the new Local Plan.

7.37 The testing of options also helped locate the most sustainable directions for growth.

Option 7

7.38 Option 7 (the integration of homes and jobs in a southern cluster) focused new homes close to existing and committed jobs within the Life Sciences cluster to the south of Cambridge, and overall was the best performing option alongside Option 1.

7.39 This option performed well against the Big Themes of the GCLP, particularly climate change, housing, jobs and infrastructure, by integrating homes with jobs and by reducing the need to travel by car through locating growth in proximity to Cambridge. Proximity to Cambridge also brought the benefits of proximity to concentrations of employment, such as CBC.

7.40 Option 7 was not geographically specific, but it included dispersal of some development to the area's larger villages. The fact that it performed so well even in those circumstances strongly suggests that better outcomes still would be achieved by concentrating homes and jobs together adjacent to Cambridge, with the benefit of immediate proximity to existing and improving transport services. The expansion sites adjacent to CBC have been selected because they exemplify these benefits.

7.41 The November 2020 Committee Report also confirmed that developments which would create a significant critical mass to fund and deliver new or enhanced infrastructure are more likely to be able to achieve delivery of the Councils' objectives than smaller or dispersed options.

7.42 All of these findings directly support the principle of the planned CBC expansion.

Satisfaction of Exceptional Circumstances for Green Belt release

7.43 The future expansion of CBC is of national and international economic significance. The allocation of land to satisfy the identified growth requirements of the Campus would respond to one of the most significant growth imperatives in the country. Just like the *CBC Vision 2050*, the Local Plan needs to set policies and plan for the long term, and it needs to recognise the extraordinary concentration of Life Sciences that the Campus provides.

7.44 The strong need for housing and employment in Cambridge and the lack of suitable brownfield land within the city's urban area on which to locate future development is itself an exceptional circumstance, which establishes the principle of Green Belt release. However, CBC is a unique asset and there are a number of additional circumstances that create a compelling case for development to be located at Cambridge South.

7.45 CBC is constrained by the Cambridge Green Belt, which has been used historically to safeguard against expansion into the countryside on the southern side of the city. Very soon after the time by which the GCLP is adopted, however, rates of take up mean that the existing allocated land at CBC will be exhausted. The Green Belt would then constrain the nationally important potential for biomedical research and production. National policy establishes the unacceptability of that constraint. It needs to be reviewed.

- 7.46 The location of the land identified for expansion of CBC is adjacent to the edge of Cambridge. The site is well served by existing and future planned public transport, meaning it aligns with the criteria set out in paragraph 138 of the NPPF that requires first consideration of such land where it has been concluded that land release from the Green Belt is necessary.
- 7.47 The testing of Option 7 in the Development Strategy Options Report demonstrates that a spatial distribution option for development south of Cambridge positively supports a mixed housing and employment proposal, and that development in this location scores highly in relation to sustainable outcomes. Growth at scale in this location generates the critical mass necessary to deliver new infrastructure, further enhancing connectivity and sustainability and aligning with the GCLP's Big Themes.
- 7.48 As part of future growth plans, CBC is determined to address the housing conditions of its current and future workers. The scale and nature of development lends itself to much more than just meeting housing need – it enables the Campus to be planned as a fully-fledged innovation district, optimising its potential and enhancing the wellbeing of its workers.
- 7.49 The expansion proposed is not a speculative development – it has been developed in partnership with CBC and would be contractually developed and managed to meet the nationally important requirements of the Campus.
- 7.50 These are the exceptional circumstances that satisfy the policy tests for Green Belt release.

Harm to the Green Belt

- 7.51 The harm that expansion would cause to the existing Green Belt is acknowledged in section 4 of this report. That section also identifies how a strategic, landscaped approach can enhance the Green Belt and set a lasting, long term and high quality Green Belt boundary to the south of the City.
- 7.52 In accordance with the NPPF the proposals seek to compensate for the loss of Green Belt (which in this case is arable agricultural land with very limited public access) through a positive strategy to enhance a comparable area of Green Belt to that developed. The *Draft Spatial Vision* submitted with this report explains the commitment to enhance one hectare of Green Belt land for every hectare lost. Very substantial improvements can be made to the quality and utility of the Green Belt south of CBC and south of Trumpington by opening it up to public access and investing in landscape, cultural, recreational and biodiversity enhancements. These improvements seek to connect the River Cam corridor and White Hill in particular to the residential neighbourhoods of Cambridge and Great Shelford.
- 7.53 Such an approach would meet the NPPF requirement to compensate for the loss of Green Belt land by enhancing the remaining Green Belt.

8 Summary and Conclusions

- 8.1 CBC has grown rapidly over the last twenty years, establishing itself as a nationally important concentration of leading Life Sciences institutions and businesses clustered close to Addenbrooke's and Papworth hospitals.
- 8.2 In the context of the current global pandemic and the growing importance of Life Sciences, CBC has provided a platform with exceptional potential for growth. The 2050 Vision identifies that potential but also recognises the need for the Campus to diversify its range of amenities and supporting activities if its potential is to be realised and it is to be enabled to compete with the best Life Sciences locations in the world. These requirements can only be met by expansion of the Campus.
- 8.3 The Life Sciences sector is subject to the most direct and up to date support in government policy, which sets out a determination that:

“The pace of technological change and global competition means that we must consider how to support the sectors and technologies that will help shape the UK's future, for example:

- *In Life Sciences we will build on our performance and leadership to date to create the most advanced genomic healthcare system in the world.”*

- 8.4 All economic sectors are important, but none are singled out as offering greater promise than Life Sciences. The fact that this is so strongly expressed in the most up to date national policy provides a strong message to the Greater Cambridge Local Plan to recognise the national importance of the sector and a clear expectation that the City will plan to “support” the sector, so that it can “help shape” our economic future.
- 8.5 CBC is the jewel in the UK's Life Sciences crown – but its success means that it will be full soon after the new Greater Cambridge Local Plan comes into force. Like CBC, the Local Plan is tasked with planning for the long term. The need to expand and diversify CBC into a world class innovation district means that there is a compelling case to plan its expansion.
- 8.6 The successful growth of CBC has also outstripped the ability of the local area to accommodate its housing needs. As highlighted by the CPIER and Savills reports, a lack of housing provision constrains the ability of Cambridge and CBC to achieve their potential and creates unsustainable travel patterns, whilst diminishing the wellbeing of its workforce.
- 8.7 There is an urgent need, therefore, to plan to meet both the housing and the employment requirements of CBC and to diversify the range of facilities and amenities that it provides.
- 8.8 The planned expansion of the Campus onto land at Cambridge South provides that opportunity.
- 8.9 The overall vision for expansion at Cambridge South is to support CBC as a world class biomedical Campus served by and integrated into a 20-minute neighbourhood. Expansion would be designed and curated to match the needs of CBC, and to respond to CBC's

commitment to ensure that expansion respects adjacent communities and is sensitively planned to respond to and enhance the landscape that frames the southern edge of the City.

- 8.10 The pattern of development promoted would enable and emphasise travel by low-carbon means, including walking, cycling and public transport, making the use of the private car redundant for many journeys. Delivering expansion at the scale proposed also allows for significant investment into climate change adaptation, sustainable infrastructure and sustainable energy solutions.
- 8.11 The landowners and CBC are both committed to sustainable growth that respects the Big Themes identified by GCSP, and support placing climate change at the heart of the new local plan, alongside a positive vision for better places, a net zero carbon economy, social inclusion and improved wellbeing.
- 8.12 Work by the local authorities has established that the needs of Cambridge for housing and employment cannot be met sustainably without Green Belt release. That work has also established that any Green Belt release is most sustainably made on the edge of the City, in locations well served by public transport and where development can integrate homes and jobs. Cambridge South meets those requirements and its development for the expansion of CBC would satisfy the national policy requirement to demonstrate exceptional circumstances.
- 8.13 Green Belt enhancement is one of the core foundations for the *Draft Spatial Vision*, guiding the transformation of the area – currently low in biodiversity value – into a network of diverse green spaces that make the most of the area’s proximity to the River Cam river valley and the chalk downlands of White Hill.

Next Steps

- 8.14 This submission to the Greater Cambridge Planning Service proposes the allocation of land at Cambridge South to accommodate the expansion of CBC. The Local Plan is at an early stage, and so are these proposals.
- 8.15 Before they can be confirmed, they need to form the subject of engagement with the local communities and to be examined alongside other local plan proposals.

Appendix 1: Sustainability Appraisal



Note

Appendix 1: Site-Specific Sustainability Appraisal – Cambridge South Response

1 Introduction

- 1.1 This document provides a site-specific Sustainability Appraisal for growth at Cambridge Biomedical Campus (CBC) ('Cambridge South') against the Sustainability Appraisal Objectives set out in the Greater Cambridge Local Plan 'First Conversation' Issues and Options Submission. This document forms an appendix to the Planning Report that considers how to support the sustainable growth of the Life Sciences cluster centred at Cambridge Biomedical Campus (CBC) (brought forward by a collective of landowners hereafter referred to as the 'Landowners').
- 1.2 The Environmental Appraisal that accompanies the first of this two-part submission provides a more detailed analysis of the environmental constraints across Cambridge South. This document focuses on the opportunities presented across the site and considers how the site location and nature of the proposed development would align to GCSP's sustainability objectives.

2 Site-Specific Sustainability Appraisal

Table 1: Site-Specific Sustainability Appraisal

GCLP SA Objective	Appraisal Questions	Proposed response from landowners
SA 1: To ensure that everyone has the opportunity to live in a decent, well-designed, sustainably	SA 1.1: Does the development provide for the local housing need of Greater Cambridge? SA 1.2: Does the development deliver the range of types, tenures that Greater	The development would deliver 5,000 homes, with the range of new homes proposed specifically designed to meet the space, typology and affordability requirements of those working at CBC, including for key workers employed across the various existing and proposed speciality hospitals on the Campus. A minimum of 40% of homes would be meet the LPA Affordable classification, with an additional range of intermediate priced homes available.



Note continued

GCLP SA Objective	Appraisal Questions	Proposed response from landowners
constructed and affordable home.	<p>Cambridge needs over the plan period?</p> <p>SA 1.3: Does the development increase the supply of affordable homes in both urban and rural areas?</p> <p>SA 1.4: Does the development provide for the housing needs of both an ageing and young population based on locational needs?</p> <p>SA 1.5: Does the development provide for specialist housing needs, including that of the student population and Gypsies and Travellers?</p>	<p>A bespoke housing mix has been designed to meet the specific requirements of CBC. It includes a significant proportion of smaller homes in response to the specific needs of the hospitals, as well as a range of larger family homes to support a balanced community. This housing mix will be subject to discussion with the local planning authorities and will evolve alongside the development proposals.</p> <p>The homes would be provided across the full range of tenures, including market and discounted rental products, part buy part rent, and market and discounted homes for sale.</p> <p>The rental accommodation would be professionally managed and available for short and long term rentals.</p> <p>Positive outcome can be expected due to provision of homes, including a minimum of 40% homes which would be affordable to meet the needs of hospital and CBC staff.</p>
SA 2: To maintain and improve access to centres of services and facilities including health centres and education.	<p>SA 2.1: Does the Plan support the existing city, district, local, neighbourhood, rural and minor rural centres?</p> <p>SA 2.2: Does the Plan provide for sufficient local services and facilities to support new and growing communities (e.g.</p>	<p>The development would deliver a range of services and facilities as part of future growth at Cambridge South designed to meet the development's needs. This would include the provision of new schools, healthcare services and community, sport and recreational facilities which meet the needs of the future community. Some provision, particularly in relation to community facilities, sport, recreation, accessible green space and services will be connected via walking and cycling routes to deliver benefit for other residents of Cambridge and surrounding small towns and villages.</p>



Note continued

GCLP SA Objective	Appraisal Questions	Proposed response from landowners
	<p>schools, employment training and lifetime learning facilities, health facilities, sport and recreation, accessible green space and services in local centres)?</p> <p>SA 2.3: Does the Plan provide for development within proximity to existing or new services and facilities that are accessible for all?</p>	<p>Positive outcome can be expected due to provision of additional services and facilities designed to meet the development’s needs and accessible for others.</p>
<p>SA 3: To encourage social inclusion, strengthen community cohesion, and advance equality between those who share a protected characteristic (Equality Act 2010) and those who do not.</p>	<p>SA 3.1: Does the Plan facilitate the integration of new neighbourhoods with existing neighbourhoods?</p> <p>SA 3.2: Does the Plan promote developments that benefit and are used by existing and new residents in Greater Cambridge, particularly for Greater Cambridge’s most deprived areas?</p> <p>SA 3.3: Does the Plan meet the needs of specific groups in</p>	<p>The improved connectivity across Cambridge South would help to connect new neighbourhoods across the site with the surrounding existing neighbourhoods. These connections will form part of the comprehensive open space strategy that will foster integration through improved opportunities for pedestrian activity and outdoor interaction across the site. A diverse range of open spaces will provide opportunities to seek out different activities and experiences when exploring the new community. The open spaces will meet a variety of needs in the community, at all ages, acting as social hubs drawing residents of all ages together.</p> <p>The development would offer a minimum of 40% affordable homes and well-located for workers at Addenbrooke’s Hospital and CBC with easy access by walking, cycling or public transport. This would help address the deficit of affordable homes within short commuting distances to the hospital which would in turn, help retain health employees in</p>



Note continued

GCLP SA Objective	Appraisal Questions	Proposed response from landowners
	<p>Greater Cambridge, including those with protected characteristics and the needs of a growing and ageing population?</p> <p>SA 3.4: Does the Plan promote the vitality and viability of Greater Cambridge's city, district, local, neighbourhood, rural and minor rural centres through social and cultural initiatives?</p> <p>SA 3.5: Does the Plan help to support high levels of pedestrian activity/ outdoor interaction, where people mix?</p> <p>SA 3.6: Does the Plan remove or reduce disadvantages suffered by people due to their protected characteristics?</p>	<p>this important sector and reduce car trips. The site's location and connectivity would mean that those on lower incomes resident within the site and in the surroundings would have access to services, facilities, natural and recreational green spaces through walking and cycling, rather than having to rely on a private car.</p> <p>The Landowners are committed to creating a healthy and inclusive community at Cambridge South. Growth at CBC provides an opportunity to create homes and jobs for the area, improving the provision of suitable and affordable housing and creating learning opportunities and employment. In addition, the provision of schools, healthcare, local services and community, sport and recreational facilities will improve access for all and will be accessible not only to future residents at CBC but also the wider community.</p> <p>The development would be designed legibly from the outset to provide accessible buildings, streets and public realm to cater for all needs.</p> <p>Positive outcome can be expected due to opportunities to encourage social inclusion and community cohesion through the design of built form and green infrastructure.</p>
<p>SA 4: To improve public health, safety and wellbeing and</p>	<p>SA 4.1: Does the Plan promote health and wellbeing and encourage healthy lifestyles by maintaining, connecting,</p>	<p>The development would be designed for wellbeing at the outset by providing a variety of places to relax, interact and socialise, and support healthy lifestyles by providing places for play and sport. The provision of significant areas of green space and access to</p>



Note continued

GCLP SA Objective	Appraisal Questions	Proposed response from landowners
reduce health inequalities.	<p>creating and enhancing multifunctional open spaces, green infrastructure, and recreation and sports facilities and by providing access to recreational opportunities in the countryside?</p> <p>SA 4.2 Does the Plan promote healthy lifestyle choices by encouraging and facilitating walking and cycling, including provision of dedicated cycleways, as well as permeable and legible streets?</p> <p>SA 4.3: Does the Plan safeguard human health and well-being by promoting climate change resilience through sustainable siting, design, landscaping and infrastructure, particularly green infrastructure?</p> <p>SA 4.4: Does the Plan provide sufficient access to local health</p>	<p>nature within easy walking distances would also be available to all, which is known to have health and well-being benefits.</p> <p>The development would be designed to provide people with choices for active travel including walking and cycling which could have a positive impact on health. Integrating homes and jobs at the Site may benefit people who have mobility issues by allowing them to live closer to their place of work and avoid having to overcome transport issues.</p> <p>The development would incorporate food growing opportunities such as allotments, orchards and small-scale agriculture into the wider green infrastructure network.</p> <p>The siting and co-location of employment and homes, with 40% Campus-focused homes, would promote climate change resilience by reducing the need to travel. Green infrastructure would be delivered across the Site which would be of a scale which would substantive opportunities for climate change resilience and adaptation, biodiversity, sustainable water management. This will help to positively influence individuals' health and lifestyle. The scale of the landscape enhancements and open space that would be provided could also help relieve pressure on existing green infrastructure assets in and around Cambridge.</p> <p>Local healthcare, education and other social infrastructure services would be accessible throughout the development.</p>



Note continued

GCLP SA Objective	Appraisal Questions	Proposed response from landowners
	<p>services and facilities (e.g. health centres and hospitals)?</p> <p>SA 4.5: Does the Plan encourage local food growing?</p> <p>SA 4.6: Does the Plan promote mental wellbeing through the design of attractive places and opportunities for social interaction?</p> <p>SA 4.7: Does the Plan promote principles of good urban design to limit the potential for crime in Greater Cambridge?</p> <p>SA 4.8: Does the Plan contribute to a reduction in the fear of crime?</p>	<p>Community engagement will be a key part of evolving the masterplan and will allow existing communities to help shape future proposals at CBC. This will ensure the Landowners are creating safe and inclusive communities that meet the requirements of the area's existing and future population.</p> <p>Growth at the Site would bring with it a wider variety of jobs and houses to help meet local housing and employment needs, which can be significant to health and wellbeing. Designed from the outset, the development would also help to address the issues faced by disabled people, such as through the provision of adaptive housing.</p> <p>Positive outcomes can be expected due to the provision of new local employment linked to a minimum of 40% affordable homes, network for active travel, access to health services, sport, recreation, natural green space and food growing.</p>
<p>SA 5: To conserve, enhance, restore and connect wildlife, habitats, species and/or sites of biodiversity or geological interest.</p>	<p>SA 5.1: Does the Plan avoid adverse effects on internationally and nationally designated biodiversity and geodiversity assets within and outside Greater Cambridge?</p> <p>SA 5.2: Does the Plan avoid adverse effects on locally</p>	<p>Due to their distance from Cambridge South, significant effects on European sites from the development are not considered likely. Barbastelle bats at the closest European site (Eversden and Wimpole Woods SAC) could potentially benefit from woodland planting at the site and expansion of the River Cam corridor and enhanced M11 corridor. The adjacent SSSI at Gog Magog Golf Course is unlikely to be affected by increased recreational pressure as access is already managed. Air quality effects, such as nitrogen deposition, would be minimised through landscape buffers, careful design of access and sustainable transport strategies.</p>



Note continued

GCLP SA Objective	Appraisal Questions	Proposed response from landowners
	<p>designated biodiversity and geodiversity assets within and outside Greater Cambridge, including ancient woodland?</p> <p>SA 5.3: Does the Plan seek to protect and enhance ecological networks, including opportunity areas (buffer and stepping stone opportunities) identified through biodiversity opportunity mapping, promoting the achievement of biodiversity net gain, whilst taking into account the impacts of climate change?</p> <p>SA 5.4: Does the Plan provide and manage opportunities for people to come into contact with wildlife whilst encouraging respect for and raising awareness of the sensitivity of biodiversity?</p>	<p>The development would take a positive approach to accommodating green space needs of the future population on-site, providing significant areas of green space including a country park which will help relieve recreational pressure on existing designated wildlife sites. The development would include ecological buffers to the Nine Wells LNR and a network of pathways through landscaped areas with features of interest and alternative opportunities for recreation and amenity to protect this important local biodiverse and geodiverse site.</p> <p>The arable land at the site is of value for farmland birds and other species and this issue will be addressed through a diverse range of habitat provision which will increase invertebrate populations and opportunities for birds to forage throughout the year.</p> <p>The Site will deliver at least 10% biodiversity net gain through habitat enhancement and a green infrastructure strategy which provide opportunities to expand the Cambridge Nature Network through stepping stones and corridors.</p> <p>Development at the Eastern Parcel would play a key role in delivering restored and connected habitats from Nine Wells LNR through to Magog Down, Gog Magog Hills and wider countryside. In line with the Doubling Nature vision, opportunities to buffer and expand the flower rich chalk grasslands of the Gog Magog Hills and southern Cambridge network will also be maximised. On the Western Parcel, the provision of wetland habitats will be enhanced along the River Cam corridor including wet woodland and meadows, delivering a new corridor of habitats along the M11 northwards towards</p>



Note continued

GCLP SA Objective	Appraisal Questions	Proposed response from landowners
		<p>Trumpington Meadows. Development areas which include buildings would also include connected habitats and stepping stone greening measures to optimise habitat connectivity whilst also serving to sequester carbon and maximise health and wellbeing benefits.</p> <p>Opportunities for wildlife will be provided throughout development areas, in multi-functional SuDS, green roofs, green walls, gardens and other features.</p> <p>Public engagement and experience of the local nature network would be encouraged through design, whilst protecting the wildlife value of existing assets through the provision of natural greenspace.</p> <p>Positive outcome through design which delivers landscape-scale stepping stones and corridors for biodiversity and the Cambridge nature network recovery.</p>
<p>SA 6: To conserve and enhance the character and distinctiveness of Greater Cambridge's landscapes and townscapes, maintaining and strengthening local</p>	<p>SA 6.1: Does the Plan protect and enhance Greater Cambridge's sensitive, special landscapes, such as fens, and historic settlements? SA 6.2: Does the Plan protect and enhance Greater Cambridge's natural environment assets (including parks and green spaces,</p>	<p>The development would concentrate development in two area on the southern fringe of Cambridge. Whilst this would affect the landscape character it may reduce such effects in the Greater Cambridge region by concentrating urbanisation in one area. Countryside gaps would be provided between the development and historic villages and towns to the south, including Little Shelford, Great Shelford and Stapleton, to avoid coalescence.</p> <p>Natural environmental assets including the River Cam valley, Nine Wells LNR and hedgerows/tree belts of high value would be protected and enhanced through the green infrastructure strategy.</p>



Note continued

GCLP SA Objective	Appraisal Questions	Proposed response from landowners
<p>distinctiveness and sense of place.</p>	<p>common land, woodland and forest reserves) and public realm? SA 6.3: Does the Plan protect the setting of the city of Cambridge, including key views into and out of the city?</p>	<p>Existing parks, green spaces, common land, woodland and public realm would not be affected. The quality of these natural green assets could benefit from reduced recreational pressure. Views of the historic Cambridge city from the south and west would be protected through suitable maximum height envelopes for built form and the new urban edges of Cambridge would be softened from through strategic landscaping.</p> <p>Positive outcome through design which protects and enhances existing landscape features, avoids coalescence with settlements to the south and protects the setting of the city of Cambridge, including key views into and out of the city.</p>
<p>SA 7: To conserve and/or enhance the qualities, fabric, setting and accessibility of Greater Cambridge's historic environment.</p>	<p>SA 7.1: Does the Plan conserve and enhance Greater Cambridge's designated heritage assets, including their setting and their contribution to wider local character and distinctiveness? SA 7.2: Does the Plan conserve and enhance Greater Cambridge's non-designated heritage assets, including their setting and their contribution to</p>	<p>Known heritage assets within Cambridge South including the two Scheduled Monuments and Grade II listed Nine Wells Monument would not be directly affected by any development. Whilst their setting is likely to be subject to change, adequate setbacks and landscape buffers to development would be in place to avoid harm. Growth at Cambridge South will provide opportunities to improve access to, as well as enjoyment and understanding of, these assets.</p> <p>The Site will be visible in views from heritage assets, in particular Conservation Areas and Grade I and II* listed structures within these areas to the south and Scheduled Monuments located south of the River Cam, Magog Down to the south and west of Nine Wells Monument. The setting of surrounding heritage assets will be protected and enhanced through careful design of strategic landscape, access and sensitive integration of new development. Long distant views of the historic city of Cambridge,</p>



Note continued

GCLP SA Objective	Appraisal Questions	Proposed response from landowners
	<p>wider local character and distinctiveness?</p> <p>SA 7.3: Does the Plan safeguard, and where possible enhance, the historic fabric of the city of Cambridge?</p> <p>SA 7.4: Does the Plan provide opportunities for improvements to the conservation, management and enhancement of Greater Cambridge's heritage assets, particularly heritage at risk?</p> <p>SA 7.5: Does the Plan promote access to, as well as enjoyment and understanding of, the local historic environment for Greater Cambridge's residents and visitors?</p>	<p>particularly from the Gog Magog Hills, will be safeguarded through limiting building envelopes and strategic planting. Strategic green infrastructure in the south of the Eastern Parcel in particular offers a significant opportunity to soften the existing built southern fringe of Cambridge.</p> <p>Archaeological investigations would be undertaken as part of any future proposals across Cambridge South which would further understanding of the archaeological heritage of the area and allow the masterplan to evolve in response and protect important assets wherever possible.</p> <p>The development would promote access to, as well as enjoyment and understanding of, the local historic environment through a cultural heritage strategy.</p> <p>Positive outcome through design which conserves and enhances historic views of the City of Cambridge and the setting of nearby heritage assets and promotes interpretation, sensitive access and enjoyment.</p>
<p>SA 8: To make efficient use of Greater Cambridge's land</p>	<p>SA 8.1: Does the Plan maximise the provision of housing and employment</p>	<p>Development of Cambridge South would result in a loss of BMV land due changes in land use. The high-grade soil will therefore no longer be available for agricultural use. This loss would be unavoidable and would occur at other locations on the fringe of Cambridge. The loss of BMV land would be mitigated through appropriate re-use of soil</p>



Note continued

GCLP SA Objective	Appraisal Questions	Proposed response from landowners
<p>resources through the re-use of previously developed land and conserve its soils.</p>	<p>development on previously developed land? SA 8.2: Does the Plan ensure contaminated land is remediated where appropriate? SA 8.3: Does the Plan minimise the loss of best and most versatile agricultural land to development?</p>	<p>resources on / off-site and maximisation of agricultural potential of BMV areas on remaining undeveloped land. Opportunities to integrate food growing uses as multi-functional greenspaces such as allotment gardens, orchards and grazing have been incorporated into the masterplan which would contribute to the GI aspirations of the GCSP emerging Joint Local Plan.</p> <p>In addition, Land Co are committed to improved land stewardship of any retained agricultural land using practices which provide an opportunity for carbon sequestration.</p> <p>There are no areas of historic or authorised landfill on-site therefore the risk of significant contamination is limited. There is one historic landfill within a 2km radius of Cambridge South, approximately 550m east of the Eastern Parcel, named Hill Trees. There are no areas of authorised landfill within 2km of the Site. Overall, sources of ground contamination at Cambridge South are likely to be limited to predominantly agricultural use on-site. Nevertheless, as part of any future application, site intrusive ground investigations works would be undertaken across the site and remedial measures taken where required.</p> <p>Negative outcome due to loss of BMV and no previously developed land (PDL) area, although BMV is widespread in the area and no PDL is available for development of this scale.</p>
<p>SA 9: To conserve mineral resources</p>	<p>SA 9.1 Does the Plan ensure that unnecessary or unjustified</p>	<p>Under the adopted Minerals Plan (2011), a Minerals Safeguarded Area (MSA) encroaches Cambridge South in the south west corner of the Western Parcel, adjacent to the M11 and the River Cam. The MSA is designated for deposits of sand and gravel</p>



Note continued

GCLP SA Objective	Appraisal Questions	Proposed response from landowners
in Greater Cambridge.	sterilisation of mineral resources is prevented?	<p>that are considered to be of current or future economic importance. In addition, under the MWLP 2019 Proposed Submission Plan areas within both parcels of Cambridge South are identified as MSAs for sands and gravel (in the north east corner of the Eastern Parcel) and chalk (in the Western Parcel). Development at Cambridge South seeks to avoid development within the identified MSA along the River Cam. The MSA areas are widespread in the Greater Cambridge area.</p> <p>Negative outcome due to presence of identified MSAs, although these are widespread in the area.</p>
SA 10: To achieve sustainable water resource management and enhance the quality of Greater Cambridge's waters	<p>SA 10.1: Does the plan ensure there is sufficient water to serve new growth for the lifetime of the development in a changing climate without negatively impacting on the environment?</p> <p>SA 10.2: Does the Plan seek to improve the water quality of Greater Cambridge's rivers and water bodies?</p> <p>SA 10.3: Does the Plan minimise inappropriate development in Source Protection Zones?</p>	<p>Water infrastructure including water supply and wastewater capacity is recognised as an important consideration for any future development at Cambridge South. At present, water supplied to Greater Cambridge through increased abstraction from the Chalk aquifer has placed the aquifer under unsustainable abstraction pressure. Longer term solutions are being explored through regional (Water Resources East) efforts although these would not be realised until the mid-2030s. Groundwater in the chalk flows broadly from the high topographic areas (e.g. under the Gog Magog Hills) north / north westwards towards the River Granta and River Cam valleys. The springs of Nine Wells LNR and LGS are groundwater fed and are the main source of water for Hobson's Conduit which flows northwards. Cambridge South is not located within a Groundwater Source Protection Zone (SPZ) and therefore development will not be incorporated within an SPZ.</p> <p>The Landowners are committed to delivering a development which adopts an integrated water management approach to help to tackle the challenges of drought and climate</p>



Note continued

GCLP SA Objective	Appraisal Questions	Proposed response from landowners
	<p>SA 10.4: Does the Plan ensure there is sufficient wastewater treatment infrastructure and environmental capacity to accommodate the new development in a changing climate?</p> <p>SA 10.5: Does the Plan promote development which would avoid water pollution due to contaminated runoff from development?</p> <p>SA 10.6: Does the Plan support efficient use of water in new developments, including the recycling of water resources, promoting water stewardship and water sensitive design where appropriate?</p>	<p>resilience, water quality, and flooding risks, whilst also offering other benefits. The Greater Cambridge Integrated Water Management Study recognises that a water management perspective, the best place to build new homes is in new settlements or large developments on the edge of Cambridge. This is because they can be designed from the outset for efficient and integrated green-blue water management, rather than having to 'bolt on' to existing infrastructure.</p> <p>To minimise pressure on water supply, the Landowners are committed to encouraging grey / green water recycling as part of any future proposals, to go beyond the Building Regulations standard requirement of 125 l/p/d, with aspirations to meet 110 l/p/d. A high standard of water efficiency measures would be employed across all future proposals at the site.</p> <p>Relocation of the Cambridge Water Recycling Centre (WRC) is targeted for operation by March 2028 and offers opportunities to expand capacity to support growth at Cambridge South.</p> <p>Protection of local water resources from pollution, in particular from surface water runoff, including the River Cam within the Western Parcel and Nine Wells, Hobson's Brook and Cherry Hinton Brook at the Eastern Parcel is a key consideration for the Landowners. Opportunities to improve water quality through habitat design could also be delivered, for example along the River Cam corridor. This would help contribute towards the Doubling Nature vision.</p>



Note continued

GCLP SA Objective	Appraisal Questions	Proposed response from landowners
		<p>Positive outcome expected due to include water efficient design although water supply and wastewater treatment constraints require regional scale solutions as part of the Local Plan. Timing – Uncertain.</p>
<p>SA 11: To adapt to climate change, including minimising flood risk.</p>	<p>SA 11.1: Does the Plan minimise inappropriate development in areas prone to flood risk and areas prone to increasing flood risk elsewhere, taking into account the impacts of climate change?</p> <p>SA11.2: Does the Plan promote the use of Natural Flood Management schemes, SuDS and flood resilient design?</p> <p>SA11.3: Does the Plan promote design measures in new development and the public realm to respond to weather events arising from climate change, such as heatwaves and intense rainfall?</p>	<p>All built development would be substantially set back from the River Cam Flood Zone 3 and therefore there would be no risk of fluvial flooding to the development.</p> <p>Detailed hydraulic modelling of the Eastern Parcel undertaken by <u>Peter Brett Associates in 2016</u> (which included a 40% climate change allowance) concluded that Flood Zone 3 identified by Environment Agency mapping relates to surface water and therefore does not pose a constraint to development. This surface water flood risk can be readily mitigated through well designed surface water drainage strategy.</p> <p>The surface water drainage strategy for both the Eastern Parcel and the Western Parcel would incorporate appropriate climate change allowances and would include a management train of SuDS measures to mimic natural drainage to avoid adverse effect on watercourses and groundwater and to improve water quality where possible. An integrated approach would be taken to SuDS and green infrastructure to promote biodiversity, increase soil and water quality and enhance landscape character. Importantly, this SuDS approach would be accompanied by a commitment to land management designed to protect and improve water quality which is likely to be affected currently by present agricultural practices.</p> <p>The River Cam valley provides an opportunity to improve floodplain habitats and hold water in the floodplain for longer which could provide wider benefits for flood risk.</p>



Note continued

GCLP SA Objective	Appraisal Questions	Proposed response from landowners
	SA 11.4: Does the Plan provide, enhance and retrofit green infrastructure?	Positive outcome though green-blue infrastructure designed to be climate resilient and include opportunities to reduce flood risk.
SA 12: To minimise Greater Cambridge's contribution to climate change	SA 12.1: Does the Plan promote energy efficient design? SA 12.2: Does the Plan encourage the provision of energy from renewable sources? SA 12.3: Does the Plan promote the use of locally and sustainably sourced, and recycling of, materials in construction and renovation? SA 12.4: Does the Plan support access to public transport provision? SA 12.5: Does the Plan create, maintain and enhance attractive and well-connected networks of public transport and active travel, including walking and cycling?	<p>The development at Cambridge South would deliver a unique blend of homes, co-located with employment uses and greenspace which would reduce the need to travel using cars. The Site is already well served by public transport (buses) but in due course is likely to be served by major public transport infrastructure improvements being planned by the Greater Cambridge Partnership which will help further reduce vehicle journeys and emissions on the roads in Cambridge. In addition, the development would deliver a network of safe, active travel routes including footpaths, cyclepaths and bridleways which would connect with the surrounding countryside.</p> <p>The scheme would be designed to help to address existing congestion issues by providing a minimum of 40% of affordable homes, social infrastructure and green space within easy walking and cycling distance of existing and planned employment jobs in on the south of Cambridge. The development would also be ideally placed to benefit from the planned public transport infrastructure provision which would further reduce the need to travel.</p> <p>Both SCDC and CCC have targets for new developments to achieve a 10% reduction on baseline carbon emissions and have adopted and emerging climate change strategies to address the causes and consequences of the globe's changing climate. Development at Cambridge South would be delivered in line with the emissions aspirations of GCSP.</p>



Note continued

GCLP SA Objective	Appraisal Questions	Proposed response from landowners
	<p>SA 12.6: Does the Plan support development which is in close proximity to city, district and rural centres, services and facilities, key employment areas and/or public transport nodes, thus reducing the need to travel by car?</p> <p>SA12.7: Does the Plan address congestion hotspots in the road network?</p>	<p>The development will ensure provision of high quality, energy efficient buildings and places using best practice in low carbon design, manufacture, construction and performance. Opportunities for the provision of energy from renewable sources and local, sustainable sourcing and recycling of materials in construction will be maximised.</p> <p>Positive outcome expected primarily through reducing carbon emission by reducing the need to travel and through high standards of design towards net zero.</p>
<p>SA 13: To limit air pollution in Greater Cambridge and ensure lasting improvements in air quality.</p>	<p>SA 13.1: Does the Plan avoid, minimise and mitigate the effects of poor air quality?</p> <p>SA 13.2: Does the Plan promote more sustainable transport and reduce the need to travel?</p> <p>SA 13.3: Does the Plan contain measures which will help to reduce congestion?</p> <p>SA 13.4: Does the Plan minimise increases in traffic,</p>	<p>Air quality monitoring data in the vicinity of the Site indicates that the annual mean concentrations of NO₂ were below the relevant AQS objectives in 2019. Concentrations of NO₂ have also decreased since 2015.</p> <p>The Landowners are committed to improving health and wellbeing and are therefore seeking to deliver development which is based on the fundamental principle of avoiding the need to travel. This will be ensured through the unique planned complementary uses and comprehensive travel strategy which is centred on walking, cycling and public transport. The travel strategy would include reliance of electric vehicles and would be further developed and tested to ensure that it does not lead to significant air quality effects or lead to poor air quality. The development is well located to help deliver a significant shift to rail and other forms of public transport due to transport infrastructure</p>



Note continued

GCLP SA Objective	Appraisal Questions	Proposed response from landowners
	<p>particularly non-electric vehicles, in Air Quality Management Areas? SA 13.5: Does the Plan facilitate the take up of low / zero emission vehicles?</p>	<p>improvements in the area being planned by the Greater Cambridge Partnership. This would further help reduce vehicle journeys and emissions on the roads in Cambridge.</p> <p>In addition, the inclusion of consolidation centres across Cambridge South to better manage the movement of and delivery of goods is a key component of the wider mobility strategy. The centres would form part of the last mile element of the supply chain, collating deliveries to a single location for onward delivery rather than allowing for goods to be delivered separately. This coordinated approach would reduce freight traffic travelling through Cambridge South thereby minimising associated air quality emissions.</p> <p>Overall, the focus of the Transport Strategy for Cambridge South on meeting the needs of CBC employees locally (including housing, education and recreation), delivering and enhancing active travel corridors and integrating with the public transport network would reduce reliance on cars and minimise future air quality emissions for the site and surrounding area.</p> <p>The design of the development would be sensitive to potential nitrogen deposition effects on ecological receptors associated with vehicular traffic, by sensitive siting of access points, setbacks and use of landscape buffers. Devil's Dyke SAC, Ouse Washes SAC, SPA and Ramsar are sensitive to air quality changes however these are considered to be a sufficient distance from Cambridge South to not be affected by development at this location.</p>



Note continued

GCLP SA Objective	Appraisal Questions	Proposed response from landowners
		<p>Positive outcome expected through reducing the need to travel and embedding sustainable travel opportunities.</p>
<p>SA 14: To facilitate a sustainable and growing economy.</p>	<p>SA 14.1: Does the Plan provide for an adequate supply of land and the delivery of infrastructure to meet Greater Cambridge's economic and employment needs? SA 14.2: Does the Plan support opportunities for the expansion and diversification of businesses? SA 14.3: Does the Plan provide for start-up businesses and flexible working practices? SA 14.4: Does the Plan support the prosperity and diversification of Greater Cambridge's rural economy? SA 14.5: Does the Plan support stronger links to the wider economy of the Oxford-Cambridge Arc?</p>	<p>Development of the site would bring economic benefits during construction, with an increase in construction employment within the area, local job and training opportunities. An increase in local spending during the construction through supply chain and spending from construction workers would also be anticipated.</p> <p>The employment floorspace on site is estimated to support over 15,000 new jobs in a broad range of roles.</p> <p>Development of the site would provide for an adequate supply of land to address the future growth needs of CBC and of the Life Sciences sector in Cambridge.</p> <p>A mix of business and educational uses are proposed to support a range of occupiers, from start-up companies through to new global head offices. Incubation and knowledge spillover spaces would play an important role. This will let businesses expand and diversify and will support spin-off companies from the organisations currently onsite.</p> <p>Provision of additional floorspace at CBC will support the role of Cambridge within the Life Sciences sector and as a cornerstone of the Oxford-Cambridge Arc, supporting contributions to both the regional and national economy. Development will specifically support the growth of the knowledge, science, research and high-tech sectors, and will also provide additional jobs in other sectors such as retail and leisure.</p>



Note continued

GCLP SA Objective	Appraisal Questions	Proposed response from landowners
	SA 14.6: Does the Plan support the growth of the knowledge, science, research and high-tech sectors?	Positive outcome expected through the provision of over 15,000 new jobs across a broad range of roles.
SA 15: To deliver, maintain and enhance access to diverse employment opportunities, to meet both current and future needs in Greater Cambridge.	SA 15.1: Does the Plan provide for employment opportunities that are easily accessible, preferably via sustainable modes of transport? SA 15.2: Does the Plan support equality of opportunity for young people and job seekers?	<p>CBC is accessible by public transport including two Park and Rides and the guided busway and it will soon benefit from the new Cambridge South station and the CSET transport route which runs through the site. New pedestrian and cycle routes are proposed to connect the extended Campus with the new residential community and the existing communities surrounding the site.</p> <p>The diversity of employment types proposed (hospitals, commercial R&D, research, hotel and conference, retail and leisure) will create job opportunities for all, including young people and job seekers. The provision of affordable homes close to CBC will also let young people and job seekers live close to their place of work.</p> <p>Positive outcome expected through the provision of employment opportunities that are easily accessible via active travel connections and public transport as well as the provision of a range of jobs for young people and job seekers.</p>

3 Conclusion

- 3.1 This site-specific Sustainability Appraisal demonstrates that growth at Cambridge South would result in a positive outcome against all of GCSP's Sustainability Objectives, with the exception of SA 8 and SA 9. These objectives are related to the loss of BMV agricultural land and presence of MSAs although it is noted that both BMV land and the MSAs are widespread within the surrounding area.



Note continued

- 3.2 Overall, growth at Cambridge South provides a unique opportunity to deliver much needed homes at scale alongside new employment floorspace and supporting infrastructure to address current CBC shortcomings whilst also planning for future growth in the most sustainable way possible.
- 3.3 As part of the future proposals for Cambridge South, consultation will be undertaken with key statutory and non-statutory consultees, including GCSP, to ensure that opportunities to protect and enhance the environmental, social and economic aspirations of Cambridge South are maximised.

