



Land at Babraham

Access and Movement Strategy (AMS)

December 2021

On behalf of **Cheveley Park Farms Ltd**

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1 Introduction

1.1 Background

- 1.1.1 Stantec UK Ltd has been appointed by Cheveley Park Farms Ltd to prepare this Access and Movement Strategy report to assist with the promotion of a new garden community on Land at Babraham at the Regulation 18 'Preferred Options' stage of the emerging Greater Cambridge Local Plan, being prepared by Greater Cambridge Shared Planning.
- 1.1.2 The Site extends to approximately 551 hectares and is currently predominantly agricultural land, split across five land parcels. In addition, the Site benefits from 16 residential dwellings and a number of commercial buildings dispersed across the land. There are also two radio masts on the Site.
- 1.1.3 The proposed site area is shown on Figure 1.1.
- 1.1.4 This report sets out the access and movement ambition and commitments that complement Land at Babraham at this stage of the emerging Local Plan process in fulfilling commitments to sustainable transport. This strategy is based on capturing the multifaceted benefits resulting from a new residential-led garden community that provides its own services and facilities that would meet many of the day to day needs of its residents.
- 1.1.5 The Site's location is paramount why developing a garden community here will meet sustainable transport objectives of maximising non-car travel modes whereby future residents of the Greater Cambridge area can live their lives without the need to rely on the private car, and meaning we can deliver a new residential development where the private car does not dominate the Site. It is next to or very near important employment centres, including the Babraham Research Campus, the Genome Campus and Granta Park. Integral to the development will be the integration with existing and proposed walking, cycling and public transport networks, namely the Greater Cambridge Partnership's Cambridge South East Transport scheme (CSETs), so that the development has excellent connectivity to/from the site with surrounding areas by these modes.
- 1.1.6 This Access and Movement Strategy is being used to inform the development of the masterplan for Land at Babraham, prepared by PRP Architects, attached at Appendix A. This shows potential development plots as follows:
- Farmland
 - Country Park Land
 - Residential
 - Research and Development Land
 - Employment Land
 - Education
 - Two Local Centres
 - Land set aside for CSET infrastructure and routeing
 - Landscaping
 - Sport amenity
 - Village Cricket Pitch
- 1.1.7 These development plots have been developed and determined taking into account existing and committed internal / external transport infrastructure, with a focus on encouraging sustainable travel and allocating land for sustainable transport infrastructure on site.
- 1.1.8 Further to this the site will maximise the opportunities that are emerging for new types of mobility that are transforming how people travel, and be flexible to adopt future technologies

that are not yet even known. This includes the need for electric vehicle charging, which will be a key mechanism to achieve net zero carbon targets.

1.1.9 The transport strategy is not and will not be based on the way mobility has been planned in the past, because that would reinforce car dependent behaviour. The strategy will instead embrace a change in focus away from “highways” to a much more holistic “transport” approach, where mobility is focused on and prioritises sustainable travel modes. This way, we tackle the following serious challenges of perpetual car use:

- Climate change – road transport is the largest contributor to greenhouse gas emissions in the UK. Decarbonising transport is imperative to cutting our greenhouse gas emissions and therefore addressing climate change, to assist the UK in delivering net zero carbon emissions by 2050;
- Air pollution – related to greenhouse gas emissions, air pollution is one of the main environmental risks to human health in the UK, and the fourth greatest threat to public health after cancer, heart disease and obesity;
- Lack of physical activity – increasing car use is a major contributing factor to lower levels of physical activity, and this is one of the top 10 causes of disease and disability in England. Lack of physical activity is related to increases in obesity, risk of disease and problems with mental health and well-being;
- Road Safety – about 1,800 people are killed on Britain’s roads annually, and nearly 25,000 seriously injured, as a result of road traffic accidents. About 85% of these accidents involved human error; and
- Inequality and Social Isolation – not everyone has access to a car. Designing new developments for car use therefore limits opportunities for many to access employment and key services and other facilities, and this can result in deprivation. It also reduces the opportunities for social interaction as there are fewer opportunities for people to stop and meet each other in the street. This can result in feelings of social isolation, particularly for the elderly, and which can have adverse mental health consequences.

Land at Babraham
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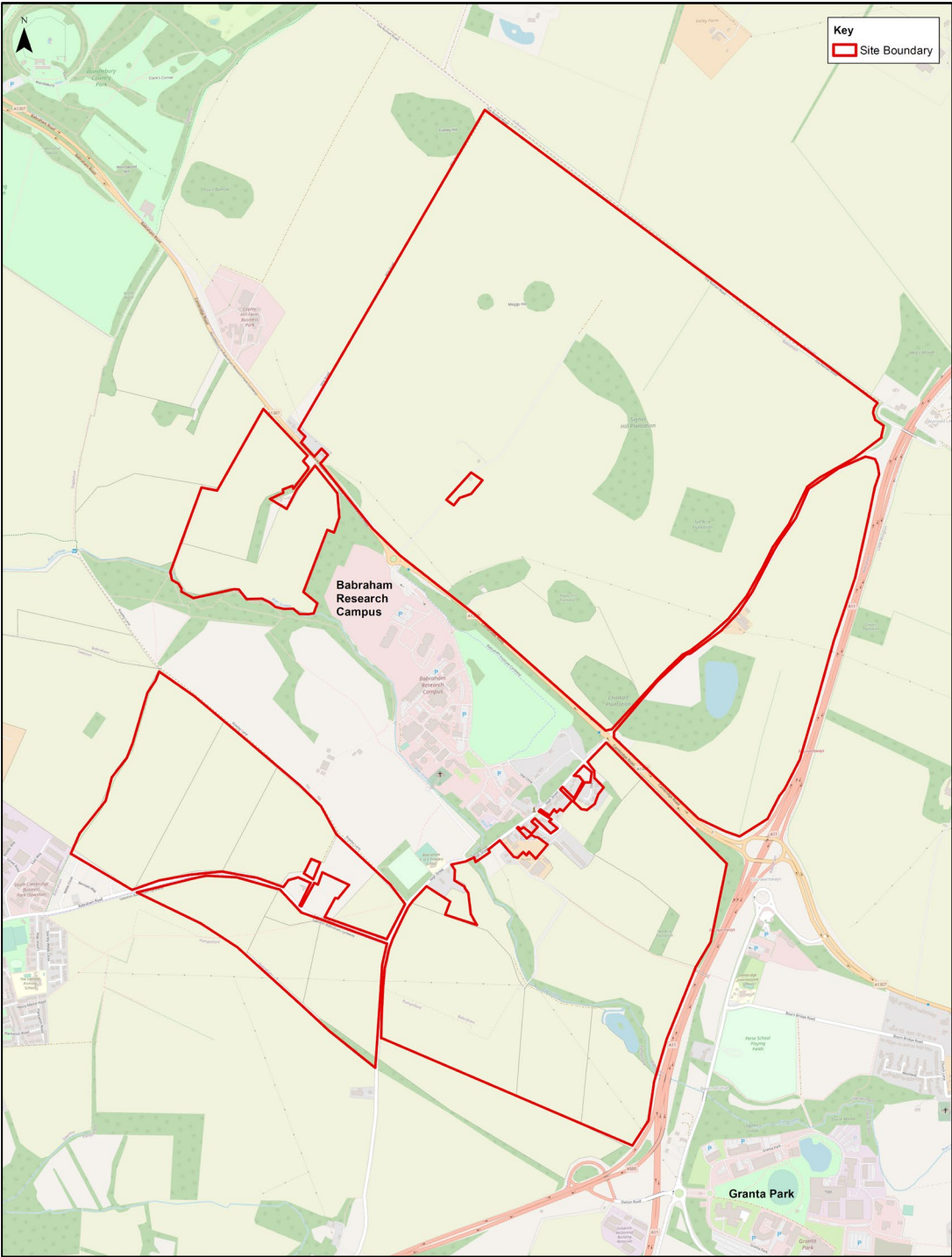


Figure 1.1: Site Location Land at Babraham

1.2 Structure of this Report

- 1.2.1 The way we have planned for access, movement and mobility in the past is described in the following section, along with how this needs to change to address future mobility challenges.
- 1.2.2 Section 3 summarises the transport policy context which will frame the transport vision and the strategy to deliver this vision for Land at Babraham, including the Four Key Themes from the Cambridgeshire Quality Charter for Growth – Community, Connectivity, Climate and Character.
- 1.2.3 Section 4 describes the existing transport infrastructure surrounding the site.
- 1.2.4 Section 5 goes onto outline the future transport context and opportunities that will be available to the site, specifically focusing on the Greater Cambridge Partnership's (GCP's) CSET scheme's sustainable commitments that run through and would benefit the site.
- 1.2.5 Section 6 discusses the opportunities and constraints for the site.
- 1.2.6 The vision for Land at Babraham is then presented in Section 7, along with the transport strategy to deliver this vision.

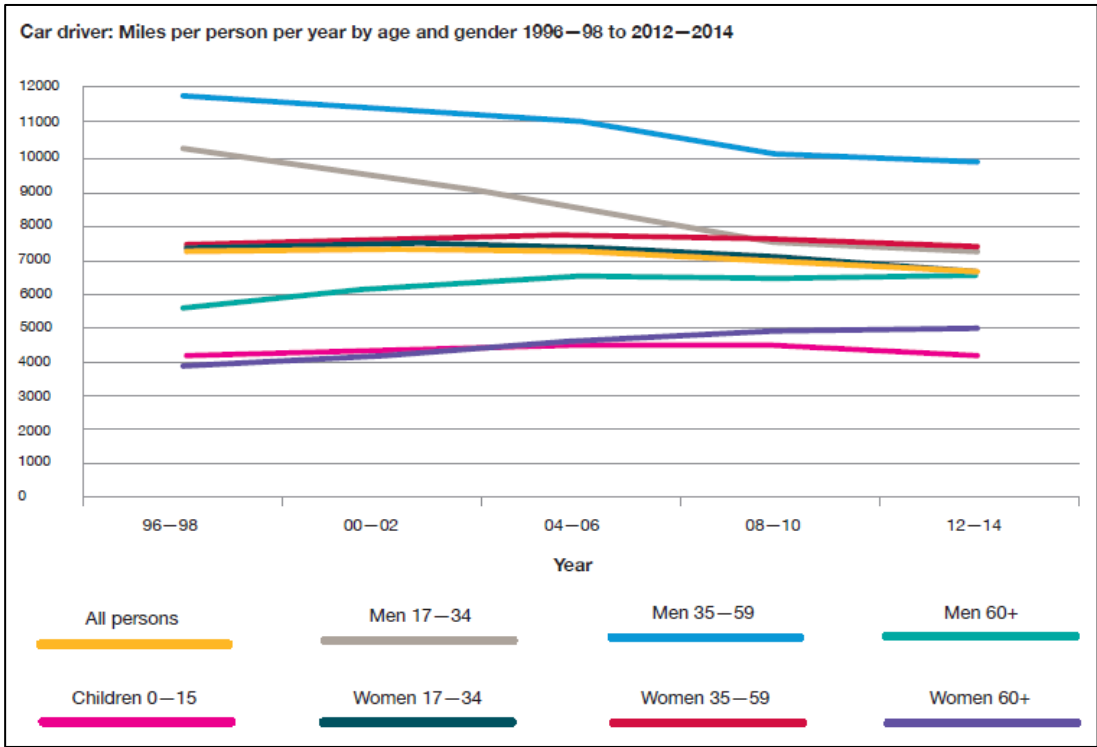
2 Planning for Access, Movement and Mobility

2.1 The Way We Have Planned for Mobility in the Past

- 2.1.1 How we have planned for the transport effects of development has undergone little significant change since the publication of Planning Policy Guidance Note 13: Transport (PPG13) over 25 years ago. Typically, a proposed development’s transport demand is predicted based on historic travel patterns and characteristics, and then transport services and infrastructure are provided to meet that predicted transport demand.
- 2.1.2 Because car use has historically been the main mode of transport for many journeys, and public perception and concerns of new development have remained focussed on continued private car use in the future, local planning authorities often adopt a precautionary approach by securing highway improvements as transport mitigation. This is fuelled by concern that sustainable travel alternatives will not be effective in mitigating a new development’s transport impacts.
- 2.1.3 This is little more than a modified version of the out-dated ‘predict and provide’ approach to transport assessment which continues to reinforce car dependent behaviour, rather than engendering sustainable and active travel patterns. New highway capacity is provided as transport mitigation, leading to a self-fulfilling prophecy whereby people end up driving because it is relatively the easiest way to move around, rather than necessarily being what people want or prefer.

2.2 Is this the Way Mobility should be Planned for the Future?

- 2.2.1 Even before the Covid-19 pandemic, travel patterns, behaviours and attitudes were changing, and we were witnessing a decline in the use of the private car. The graph below indicates a decline in the number of miles driven in a car between the mid-1990s and the mid-2010s.



- 2.2.2 The reduction in car travel is particularly marked amongst younger people, whose propensity to travel by car has fallen over the last 20 years. Whilst the older generation are generally travelling by car a little more, the trend for younger people is away from car travel.
- 2.2.3 New technologies are emerging at the same time as these behavioural changes in travel patterns. These technologies primarily include smart phones and mobile data, smart ticketing, micro-mobility through the use of electric scooters in towns and cities, and other mobile apps that allow much better understanding and awareness of the range of travel options available other than the private car.
- 2.2.4 These changes are having significant implications for how we plan future transport provision. It is too early to fully understand the impacts that the pandemic may have on travel demand and travel preferences in the medium and long-term, however it has demonstrated that new technologies have enabled significant change in the short term on how we live our lives, primarily the ability to be flexible in working from home. At the same time, it must be recognised that not all occupations lend themselves to working from home.
- 2.2.5 The transport strategy for Land at Babraham will need to be flexible and resilient so that it is responsive to future changes. Despite the uncertainty of Covid-19, this will mean a development that is relevant to the way people will be living and travelling in the future, rather than based on historic travel patterns that have perpetuated the use of the private car.

2.3 Benefits of and Location of Travel / Mobility Hubs

- 2.3.1 One of the key benefits of the site that the transport strategy has and will continue to be designed alongside and incorporate, is the committed CSETs Transport Hub that will be located along the site's eastern boundary. The transport strategy will also focus on providing smaller travel hubs within the site to connect the site to the committed CSET infrastructure as it passes through the site.
- 2.3.2 Mobility/travel hubs are recognisable places within or close to developed areas that offer connected sustainable transport modes supplemented with facilities, amenities, public realm and information features to attract and benefit the traveller towards sustainable travel and away from the private car. Mobility/travel hubs are designed and spatially organised in an optimal way so as to facilitate access to and transport between sustainable modes (walking, cycling, public transport). Ultimately, they will include for some/all of the following in one location so that staff/visitors/residents/commuters/leisure users know where to go to connect to various forms of sustainable travel:
- High spec bus stops and dedicated priority bus routes
 - Limited car parking provision
 - Cycle/scooter parking/hire
 - Cycle repair unit
 - Wi-Fi/phone charging
 - Electric bike and car charging and electric bike battery lockers
 - Facilities to create a safe, convenient, comfortable and attractive area
 - Clear and comprehensive travel information in one location
 - Café
- 2.3.3 A mobility hub will also include for public realm and other facilities (café etc) to attract more people who wouldn't normally travel by sustainable modes and potentially change their preferred choice of travel mode.

3 The Transport Policy Context

3.1 Introduction

3.1.1 National and local transport policies form an important basis for the transport strategy for Land at Babraham. They are summarised below, the overall theme being to reduce the need to travel, particularly by private car.

3.2 National Planning Policy Framework (2021)

3.2.1 The NPPF contains the Government's planning policies for England and how these are expected to be applied. At the heart of the NPPF is a presumption in favour of sustainable development, meaning development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

3.2.2 In 'Promoting sustainable transport' (under Section 9), the NPPF advises that transport issues should be considered at an early stage in development proposals so that:

- The potential impacts of development on transport networks can be addressed;
- Opportunities from existing and proposed infrastructure, and changing transport technology and usage, are accommodated;
- Opportunities to promote walking, cycling & public transport use are identified & pursued.
- The environmental impacts of traffic and transport infrastructure can be identified, assessed, and considered, including appropriate opportunities for avoiding and mitigating any adverse effects; and
- Patterns of movement, streets, parking, and other transport considerations are integral to the design of schemes and contribute to making high quality places.

3.2.3 At the same time, the NPPF recognises that opportunities to maximise sustainable transport solutions will vary from urban to rural areas.

3.2.4 It notes that new developments should:

- Take up appropriate opportunities to promote sustainable transport modes, given the type of development and its location;
- Achieve safe and suitable access to the site for all users;
- The design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code; and
- Cost effectively mitigate, to an acceptable degree, any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety.

3.2.5 At paragraph 111, the NPPF advises that:

"Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe."

3.3 South Cambridgeshire Local Plan (2018)

- 3.3.1 The above national transport policy aims are reflected in South Cambridgeshire District Council's (SCDC's) Local Plan 2018. This includes Policy TI/2 'Planning for Sustainable Travel', which requires that "*Development must be located and designed to reduce the need to travel, particularly by car, and promote sustainable travel appropriate to its location.*"
- 3.3.2 The Local Plan notes that South Cambridgeshire is predominantly a rural district, meaning that the car will remain an essential mode of travel for some, and that the car has a role in improving access to local services and facilities. However, the benefits of enabling travel by non-car driver modes are considerable, relating to improved health through walking and cycling, reduced emissions and improved operation of the highway network in terms of congestion and road safety.
- 3.3.3 All development should strive to offer real travel choice for all people by non-car modes appropriate in scale and kind to the development, and the Local Plan notes that car and cycle parking provision can be used as part of a comprehensive approach to achieving this. Policy TI/3 'Parking Provision' notes that "*Car parking provision should be provided through a design-led approach in accordance with the indicative standards*" [referred to in Section 2 of this report]. Furthermore:

Car parking provision will take into consideration the site location, type and mix of uses, car ownership levels, availability of local services, facilities and public transport, and highway and user safety issues, as well as ensuring appropriate parking for people with impaired mobility.

The Council will encourage innovative solutions to car parking, including shared spaces where the location and patterns of use permit, and incorporation of measures such as car clubs and electric charging points

3.4 Cambridgeshire Quality Charter for Growth (2010)

- 3.4.1 The Charter sets out core principles for achieving quality new homes and neighbourhoods in new development in the five authorities that make up the County of Cambridgeshire.
- 3.4.2 There are four themes (Community, Connectivity, Character and Climate Proofing), and each is supported by nine guidelines. The principles are based on what works.

Community

- 3.4.3 Building a sense of community, places where people live out of choice and not necessity, creating healthy communities with a good quality of life.
- i. Community involvement – consulting with people who are going to move in.
 - ii. Housing should allow for changes in needs and lifestyles – as people's circumstances and ages change, they can remain fully included in their neighbourhood.
 - iii. People should be encouraged to take active roles in the development and continuing management of their community.
 - iv. Social infrastructure (health, education, leisure) is just as important as the physical infrastructure of roads and utilities.
 - v. There should be a mixture of formal and informal green space – promoting interconnectivity between new and existing Green Infrastructure.

- vi. Initial and on-going community development support should be provided to 'build your own community'.
- vii. Public spaces should encourage social interaction and support healthy lifestyles – there should be clear allocation of responsibilities for managing communal spaces and the public realm.
- viii. Community buildings should be designed to be flexible and make use of the latest technology.
- ix. Space should be made available for local shops and services to set up – building a sense of community and minimising car dependence.

Connectivity

3.4.4 Places that are well-connected enable easy access for all jobs and services using sustainable modes

- i. Having public transport in place at the start of the development – to encourage people to get used to green options.
- ii. Public transport should integrate with existing transport systems with frequent service and stops.
- iii. Linkages with existing and potential employment opportunities should be recognised.
- iv. New developments should contribute to the wider environmental goals for the Cambridge area – enhancing the feasibility of walking and cycling.
- v. The streets, footpaths and other links to major urban extensions should be designed as a user hierarchy – it should be clear who and what they are for. Primacy should be given to walking, cycling and community transport.
- vi. Easy mobility for all, including those using wheelchairs and pushchairs should be taken into account.
- vii. Bus stops should offer well designed waiting areas, providing information on services and local facilities, and should feel safe and overlooked.
- viii. Parking management such as charges and the provision of car sharing / car clubs should be used to discourage unnecessary car use.
- ix. Road design should include permeable surfaces.

Character

3.4.5 Places with distinctive neighbourhoods and where people create 'pride of place'

- i. The existing landform and features of the site, such as water and landscape and the relationship to existing settlements, should be used to create varied and memorable townscapes.
- ii. An overriding masterplan should aim to provide the vision for the development, with neighbourhood design strategies and design codes establishing the qualities and characteristics that will make the new places distinctive

- iii. To ensure the successful realisation of the masterplan experienced and fully-skilled masterplanners should be retained for the duration of the project to ensure that the overall vision is maintained.
- iv. Densities and massing should vary, with higher densities around local shops and transport nodes, to provide the full range of house types that are needed.
- v. Creative thinking, simple designs – well built, using high quality materials and careful detailing.
- vi. Open space requirements should be integrated with buildings throughout the scheme.
- vii. The creation of good landscapes is as important as the creation of good townscapes.
- viii. All buildings – commercial, residential, and public – should be flexible and adaptable, which means providing large enough spaces or space for appropriate expansion and changing lifestyles.
- ix. Car and cycle parking, storage and waste recycling should be integrated within the design of the new homes.

Climate

- 3.4.6 Places that anticipate climate change in ways that enhance the desirability of the development and minimise environmental impact
- i. Major new developments should enable residents and workers to adopt sustainable lifestyles that minimise the use of energy and other resources, by reduced car use.
 - ii. Environmental targets should be challenging and where possible go beyond the minimum standards so that new schemes act as exemplars.
 - iii. New development should not be located in areas of unacceptable environmental risk, such as areas which are liable to flooding.
 - iv. Arrangements for sustainable waste management should be built into new developments to make recycling easy and unobtrusive, and encourage people to waste less.
 - v. The utilities should be engaged in a collaborative design process to help promote energy and water conservation.
 - vi. Public buildings, housing and neighbourhoods as a whole should be designed to anticipate climate change so they are capable of being upgraded and adapted easily and economically.
 - vii. Biodiversity and wildlife should be encouraged through a network of green spaces and Sustainable Urban Drainage Systems (SUDS).
 - viii. Sustainable energy partnerships or trusts should be encouraged, for example, through education, marketing and schemes that help people cut energy use.
 - ix. Trees and planting should be used extensively to provide cooling in summer and to soak up rain, as well as to provide a landscape that encourages people to walk and cycle.

3.5 Transport Policy Summary

- 3.5.1 The above transport policy and guidance makes it clear that any new development must be located so that sustainable travel modes are maximised and that the use of the car does not dominate the development. The reasons for this are to tackle climate change and promote healthy lifestyles. Transport strategies must therefore manage down the vehicular traffic impacts of development through encouraging the use of sustainable modes of transport, planning development in sustainable locations and management of the residual traffic demand. Only as a last resort should highway capacity improvements be considered within the transport network.
- 3.5.2 The correct location of new development will be paramount to delivering new development proposals that are sustainable and minimise the overall impact of the development on the broader network. The Land at Babraham provides this correct location. It will have excellent non-car accessibility for its residents to nearby key employment areas, facilitated by the proposed CSET scheme, including the adjacent Babraham Research Campus, Granta Park and the Genome Campus, along with the Cambridge Biomedical Campus and beyond to Cambridge City Centre.

4 The Transport Context for the Site

4.1 Existing Context

- 4.1.1 The Site extends to approximately 551 hectares and is currently predominantly agricultural land, split across five land parcels. In addition, the Site benefits from 16 residential dwellings and a number of commercial buildings dispersed across the land. There are also two radio masts on the Site.
- 4.1.2 Babraham is located 6.7 miles to the south east of Cambridge and is within the jurisdiction of South Cambridgeshire District Council (SCDC), now part of the Greater Cambridge Combined Planning Authority. The local highway authority for local roads around the site is Cambridgeshire County Council (CCC), while National Highways (formerly Highways England) are the highway authority for the A11.
- 4.1.3 Babraham is known as being home to the Babraham Research Campus / the Babraham Institute, which undertakes research into cell and molecular biology. Babraham has few local amenities, however it does benefit from its own nursery and primary school. The neighbouring village of Sawston, 2.2 miles west of Babraham offers a wider variety of local amenities including, two further primary schools; Sawston Village College; a variety of local shops; post office; library; public houses; restaurants; a sports centre; community pavilions; and a medical centre.
- 4.1.4 Babraham benefits from excellent transport links to Cambridge and London. The A505 is situated to the south of the village providing access to the M11, A10 and A1(M) and the A11 is situated to the east of the village providing access to the A14. Whittlesford Parkway railway station is situated 3 miles south west of Babraham and provides direct train routes to Cambridge in approximately 12 minutes and London Liverpool Street in just over an hour. Alternatively, Shelford railway station is located approximately 5 miles to the north west, providing a service to Cambridge in approximately 8 minutes and connection to London Kings Cross in around 50 minutes.
- 4.1.5 There are existing bus stops located along the A1307 (two adjacent to the High Street and two adjacent to the Babraham Research Campus roundabout access), which are served by the Stagecoach Number 13 / 13A / X13, which serves Cambridge City Centre, Addenbrooke's Hospital, Babraham Research Campus, Great Abington, Linton, and Haverhill. The frequency is every 30 minutes from early morning to after the evening peak hour, Monday to Friday. The timetabled journey time from these A1307 stops to Cambridge City Centre (Drummer Street) is about 26 minutes.
- 4.1.6 Further to these bus stops, the Citi 7 serves Sawston to the west of the site. The Citi 7 offers regular buses every 20 minutes to/from Saffron Walden, Ickleton, Duxford, Trumpington and Cambridge Railway Station.
- 4.1.7 The site is about 3 miles northeast of Whittlesford Railway Station. The station is within a reasonable 15 – 20 minute cycle ride of Babraham via a segregated shared footway / cycleway running alongside the A505. There are sheltered cycle spaces at the station, so users do not need to carry their cycles on the train. Greater Anglia operates services stopping at Whittlesford Parkway which call at Cambridge, Audley End, Bishop's Stortford, Stansted Airport, London Liverpool Street, Ely, and Norwich, amongst other places.
- 4.1.8 A number of the local employment centres such as the Babraham Research Campus, Granta Park and the Genome Campus operate staff shuttle buses, providing connections between the sites and Cambridge.
- 4.1.9 Figure 4.1 shows existing cycling isochrones from the centre of the site.

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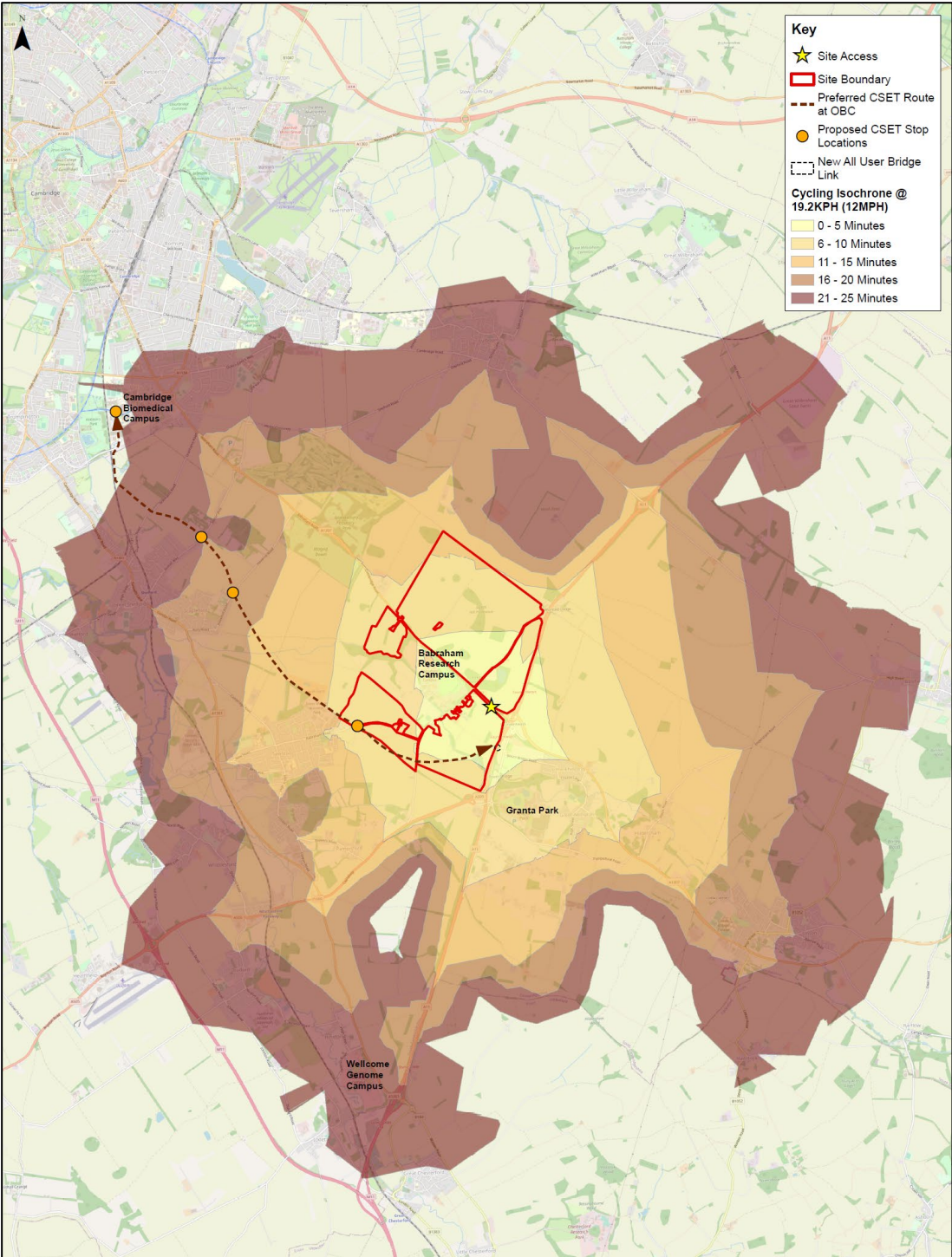


Figure 4.1: Existing Cycling Isochrones

4.1.10 Figure 4.2 shows the site in the context of the wider key employment areas and transport infrastructure.

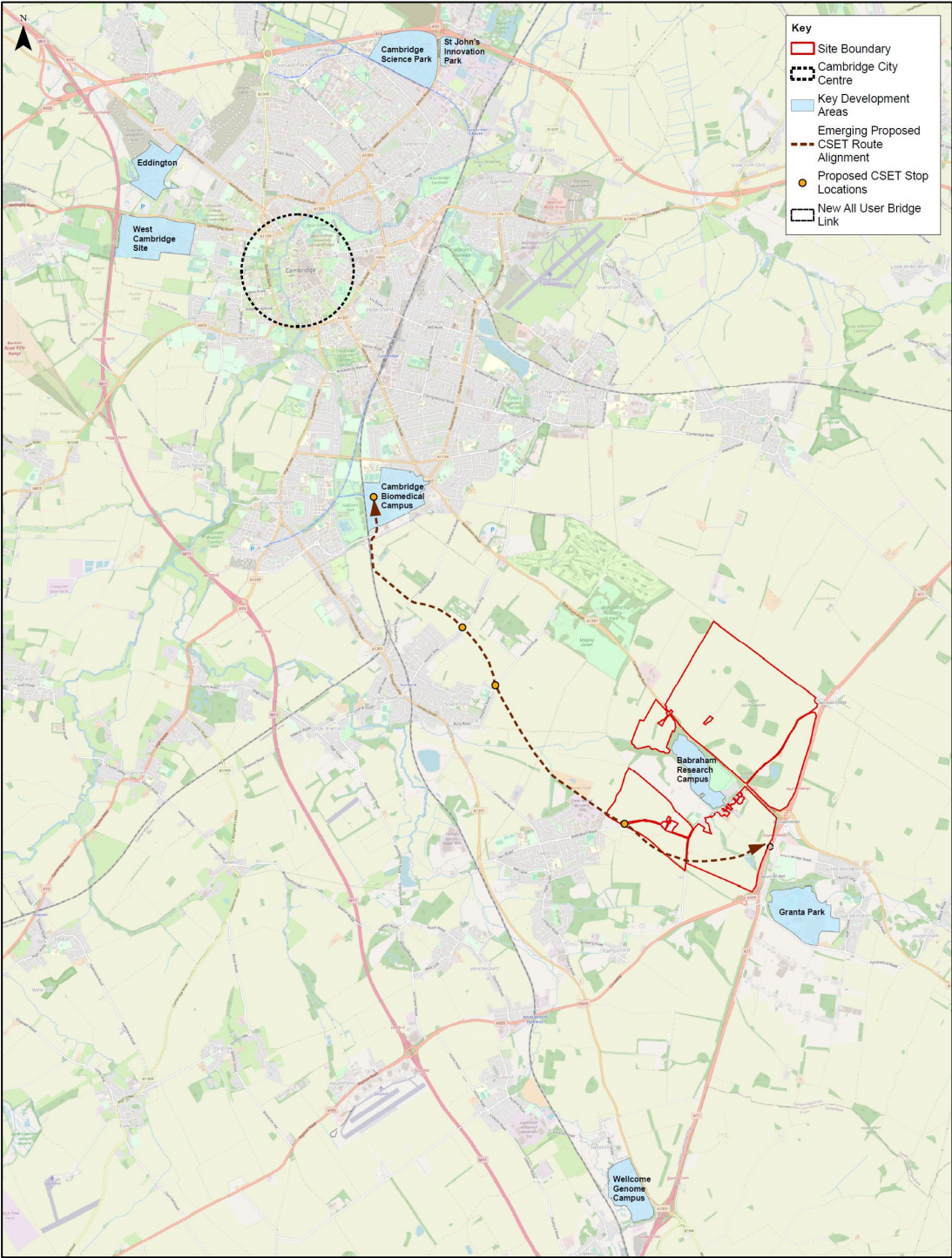


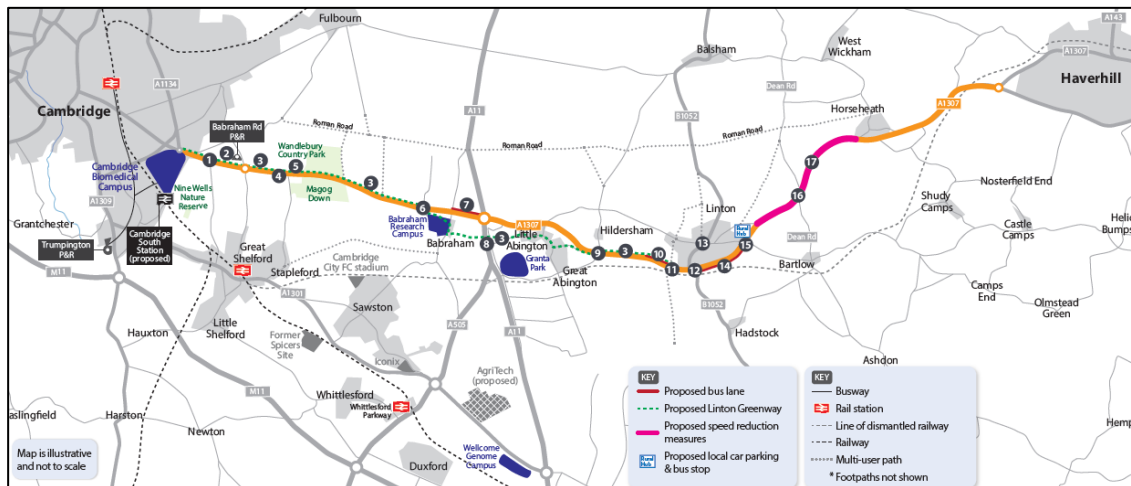
Figure 4.2: Wider Site Context

4.2 Future Transport Context

4.2.1 Greater Cambridge Partnership (GCP) are planning significant transport improvements along the A1307 corridor between Cambridge and Haverhill as part of the Cambridge South East Transport (CSET) scheme. Phase 1 of CSET has been described in the previous section. Phase 2 is a major public transport, walking and cycling infrastructure scheme. It is made up of three key elements:

- A dedicated public transport link between the A11 and the Cambridge Biomedical Campus, running immediately through Land at Babraham, with potential connections into development plots within the site;
- A new Travel Hub facility located adjacent to and between Land at Babraham and the A11/A1307 junction ; and
- New cycling, walking and equestrian facilities running alongside the public transport link through the site.

4.2.2 Details of the Phase 1 CSET scheme are shown in Figure 4.3 below.



ITEMS KEY	
1 Granham's Road junction - right-turn lane	10 Peak-hour eastbound bus lanes on approach to Linton Village College and safety improvements at Dalehead Foods junction
2 Extra cycle storage at Babraham Road P&R	11 Linton Village College signal upgrade
3 Linton Greenway	12 Signalised junction with Linton High Street
4 Haverhill Road/the Gog Farm Shop junction safety improvement	13 Measures to ease bus movements in Linton
5 Multi-user underpass at Wandlebury	14 Westbound bus lanes on approach to B1052 junction
6 Signalised crossing at roundabout	15 Bartlow Road roundabout and rural hub
7 Eastbound bus lane at A11	16 Dean Road crossroads - close central reserve
8 Multi-user crossing of A11 via improved footbridge & underpass	17 Speed reduction measures Horseheath to Linton
9 Signalised Hildersham crossroads with Toucan/Pegasus crossing	

Figure 4.3: CSET Phase 1 Schemes

- 4.2.3 The CSET Phase 2 scheme will transform the accessibility of the immediate and surrounding areas around Land at Babraham by non-car modes. It will provide a high-quality public transport link with Sawston, Stapleford and South Cambridge, including the proposed Cambridge South railway station at the Cambridge Biomedical Campus. The public transport services would be unaffected by congestion, enabling more reliable journey times and allowing public transport to compete more effectively with the private car.
- 4.2.4 It forms a key part of the GCP's plans for providing high quality sustainable travel options across the Greater Cambridge area. The scheme will seek to connect people to places of employment and allow communities to grow sustainably in the coming years, by creating better and greener transport networks, reducing congestion, and making better use of limited road space by prioritising sustainable transport.
- 4.2.5 The proposed route of the CSET Phase 2 scheme is shown in Figure 4.4 below in the context of Land at Babraham.

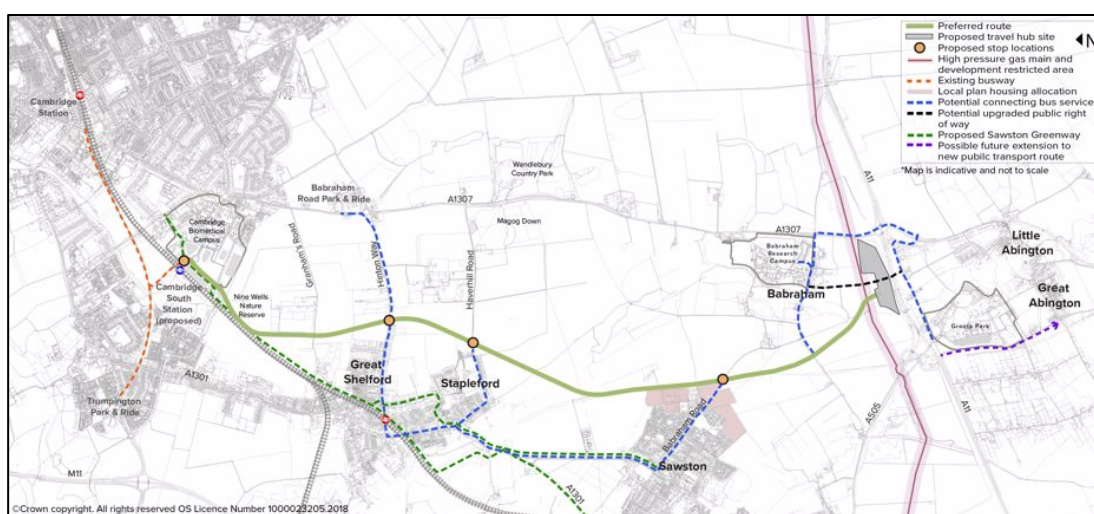


Figure 4.4: CSET Phase 2 Route Alignment

- 4.2.6 A Transport and Works Act Order application for the scheme is due to be submitted in Autumn 2021, and the current programme envisages an opening year of 2025. It would therefore be operational in time for and significantly improve the non-car accessibility of Land at Babraham.
- 4.2.7 The CSET scheme will transform the accessibility of this area by non-car modes. It will assist with excellent public transport connections between Cambridge and what is identified in the emerging Local Plan as the Rural Southern Cluster, which contains the key employment areas of the Cambridge Biomedical Campus, the Genome Campus and Granta Park.
- 4.2.8 It is right that the emerging Local Plan is providing this excellent accessibility to key employment sites, because transport planning guidance advises that jobs have accessibility by non-car modes of travel.
- 4.2.9 However, transport planning guidance also notes that jobs and houses should be located to minimise the number and length of journeys needed for employment, shopping, leisure, education and other activities, and this means supporting an appropriate mix of uses within large scale sites. Therefore, it is good land use and transport planning practice to have employment and housing in close proximity, meaning journey lengths are minimised and therefore providing excellent opportunities for these journeys to be made by non-car modes.
- 4.2.10 The development of the garden settlement therefore provides an excellent opportunity to co-locate the growing employment uses in the Rural Southern Cluster with residential uses, with

travel facilitated between the two by the excellent public transport accessibility that will be afforded by the CSET scheme, and the short travel distances involved.

5 Transport Opportunities, Constraints and Mitigation

5.1 Introduction

5.1.1 This chapter builds on the previous section and highlights the potential transport opportunities and constraints to promote sustainable travel to and from Land at Babraham.

5.2 Constraints

5.2.1 The following constraints relating to Land at Babraham will need to be mitigated:

- Existing vehicle speeds along A1307.
- Existing capacity constraint A1307 and wider road network.
- Need to significantly increase sustainable travel modes to help Government meet their Net Zero Carbon Target by 2050.
- Rural location.
- Links across A1307 to/from country park.
- Need for limited traffic through Babraham High Street and existing residents.
- Need to stop rat running through site.
- Bridge over River Granta

5.3 Mitigation

5.3.1 The following measures are proposed for Land at Babraham to mitigate the above constraints:

- Road network designed to discourage rat running through the site and measures to limit the increase in traffic through the existing Babraham High Street.
- Sustainable connectivity to the CSET2 busway as it passes through the site.
- Sustainable walking /cycling connectivity to the Country Park proposed on the northern side of the A1307 that will form part of this site.
- A focus on connecting new public transport services with existing and committed services/infrastructure.
- Street network to be designed with user hierarchy at the forefront to encourage walking, cycling and community transport over the private car.
- Potential to offer two strategies for access off the A1307 (standalone junction with controlled pedestrian crossing facilities or interaction with proposed Travel Hub roundabout) to offer flexibility and encourage sustainable travel.
- Potential to offer two strategies for linking the site across the River Granta (standalone bridge for development walking/cycle/car trips or combined approach tying in with the

CSET bridge) to offer flexibility, better landscaping/views and encourage sustainable travel.

5.4 Opportunities

5.4.1 Land at Babraham offers the following opportunities:

- Proximity to existing and committed cycle paths.
- Proximately to existing footpaths and Public Rights of Way (PRoWs).
- Proximity to and easy access to existing frequent public transport services along A1307.
- Recent improvements to cycle infrastructure along A1307.
- Access to CSET Phase 2 Transport Hub.
- Potential for segregated A1307 access and/or shared access with Transport Hub.
- Numerous points of access.
- Internalisation of trips.
- Proximity to future sustainable growth corridor and GCP's CSET sustainable commitments.
- Proximity to Linton Greenway.
- Potential to extend buses through the site.
- Need for limited traffic through Babraham High Street and existing residents.
- Need to stop rat running through the site.

6 Access and Movement Strategy

6.1 Planning for the Transport Mobility Needs of the Future, Not the Past

6.1.1 The vision for Land at Babraham is to offer a healthy, socially inclusive, and well-connected place, where existing / new employees / residents can travel easily within, around and beyond the site by sustainable modes of travel. This will address the key consequences of otherwise unfettered growth in the use and reliance on the private car, and therefore:

- Help decarbonise the transport system for the surrounding area, meaning reduced greenhouse gas emissions and impacts on climate change;
- Reduce air pollution;
- Continue to increase physical activity through increased active modes of travel such as walking and cycling; and
- Fewer road traffic accidents.

6.1.2 An important element in achieving this vision is the development of a transport strategy, for Land at Babraham, that does not perpetuate historic patterns of travel and mobility, which have been focussed primarily on use of the private car. As indicated earlier, the relationship people will have with the private car will be quite different in the future, due to changing patterns of travel, developing technologies and new attitudes to mobility. To achieve a healthy, socially inclusive, and well-connected place, the future transport strategy therefore needs to utilise the committed sustainable strategy for the area and have flexibility to allow for these and other transformative changes.

6.1.3 Fundamentally, we must recognise that a healthy, socially inclusive, and well-connected place is not one where travel by private car can continue unfettered. Do we want a development in which people are physically and mentally healthy? If the answer is yes, a key aspect will be the delivery of a transport strategy that reduces the use of the private car and connects with and uses the committed sustainable transport infrastructure (GCP's CSET). This means turning transport planning on its head: instead of providing transport infrastructure and services based on past national experience, which would lead to increased capacity for the private car, the expansion's strategy will continue to prioritise people's safety, health and well-being, air quality and the non-car travel choices available to them.

6.2 Maximising Opportunities for New Types of Mobility

6.2.1 Mobility patterns are changing. We are travelling less. For example, pre-covid, car driver and passenger travel has reduced by 11% in England since 2002. The reduction in car travel is particularly marked amongst younger people, whose propensity to travel by car has fallen over the last 20 years, in men by some 47%. Whilst the older generation are generally travelling by car a little more, the trends amongst younger people away from car travel will have significant implications for how we plan the transport provision for Land at Babraham.

6.2.2 Travel patterns have changed significantly as a result of the Covid-19 pandemic, with significant reductions seen in vehicular traffic, increases in cycling and walking, and of course significant increases in the number of people working from home. We cannot tell at this stage how long-lasting these changes will be, but they demonstrate that we need to have the flexibility to allow for changing travel patterns in the future when we design proposals and the transport infrastructure and services to serve them.

6.2.3 As indicated earlier, the transport policy context is changing too. The Government have published a 'Road to Zero' strategy, which sets out the objective that all new cars and vans

will be effectively zero emission by 2040. Its recent policy paper “Decarbonising Transport: Setting the Challenge” starts the discussion on what is needed to deliver the reduction in emissions required across all modes of transport to achieve this and stay within the carbon budgets until then. It suggests electric car charging points for all new homes, that public transport and active travel will be the natural first choice for our daily activities, and that we will need to use our cars less and be able to rely on a convenient, cost-effective, and coherent public transport network.

- 6.2.4 New technologies, changing travel patterns and the focus on zero carbon will play a pivotal role in how we plan new developments. The transport strategy and planning for Land at Babraham will need to be flexible and resilient so that it is responsive to these changes in order to maximise the resulting opportunities for new types of mobility. This will mean a mix use development that is relevant to the way people will be living and travelling in the future, rather than based on historic travel patterns that have perpetuated the use of the private car.

6.3 Prioritising Walking and Cycling for Local Trips

- 6.3.1 High quality walking and cycling connections have been considered from the inception of the proposed masterplan for this site, linking the site with existing and committed sustainable infrastructure. This will include internal footways and cycleways connecting to the new shared footway / cycleway, that forms part of the Linton Greenway, on the A1307 and the committed walk/cycle corridor that will be included as part of the CSET Phase 2 bus corridor.
- 6.3.2 Walking and cycling will be encouraged as part of a Travel Plan that will be prepared for the Site.
- 6.3.3 Walking and cycling are important recreational activities in themselves, providing valuable opportunities for healthy and active lifestyles and improving well-being. The Site will therefore provide high quality sustainable access within, through and to the surrounding countryside, including the Linton Greenway, the numerous footpaths and bridleway surrounding the Site and the key country park that form part of the site to the north of the A1307.
- 6.3.4 Through the promotion of walking and cycling, and the accessibility of the high-quality proposed and committed walking and cycling infrastructure linking through the Site and onto existing and future high quality committed sustainable transport infrastructure, the Site will achieve the important objective of prioritising walking and cycling for local trips both within the Site and with surrounding employment & residential areas.

6.4 Maximising the Use of Public Transport

- 6.4.1 As part of the Site development, Cheveley Park Farms Ltd and the design team will work with the GCP to accommodate and maximise a public transport strategy that allows full integration of the committed CSET public transport strategy and infrastructure running through the Site. This will include internal sustainable links connecting with the CSET busway corridor and a layout that accommodates local buses connecting through the Site.
- 6.4.2 The internal walking and cycling routes outlined above will also provide connections to the existing bus services operating along the A1307 that have and will continue to be improved as part of CSET Phase 1.
- 6.4.3 The changing travel patterns described earlier suggest that people are more and more likely to choose travel by such sustainable modes instead of the private car, and it will be important that conventional transport planning for the Site, where improvements are based on historic car use, does not prejudice this outcome and instead sustainable travel infrastructure is prioritised over the private car as part of the user hierarchy.

- 6.4.4 With these proposed and committed strategic public transport measures, residents, staff and visitors will have a good quality alternative to the private car.

6.5 Private Car Strategy

- 6.5.1 The site has significant frontage with the A1307, from which the main vehicular access will be taken by a proposed new junction with controlled pedestrian crossing facilities. This junction will be located away from the existing Babraham High Street and measures will be implemented to limit vehicle trips along the existing High Street.
- 6.5.2 Vehicle access will also be taken via High Street off the A505 and also via Sawston Road.
- 6.5.3 Within the Site the road network will be designed in accordance with the latest design standards (those relevant at the time of planning submission), meaning the needs of pedestrians and cyclists will be prioritised and considered from an early stage in the design of the layout in preference to the private car.
- 6.5.4 The developing masterplan will include for EV charging bays at a rate that will meet the relevant policy and standards at the time of planning submission. Additional ducting infrastructure will also be provided to allow for future proofing and phasing of the Site to meet future demand growth.
- 6.5.5 Car parking provision will be balanced at a level which recognises likely demand, but also seeks to deter habitual car use for journeys that could be made by non-car modes.
- 6.5.6 Car club spaces will also be included as part of the developing masterplan to assist with efficient use of the private car.
- 6.5.7 As part of any planning application for the Site, a detailed Transport Assessment would be undertaken, the scope of which would be agreed with highways officers of Cambridgeshire County Council. The Transport Assessment would provide a detailed technical assessment of the impact of the Site on the operation of local transport networks, including the road network, along with the resulting appropriate mitigation. The traffic impacts of the Site are likely to be significantly reduced by the benefits of the site location in the context of the committed CSET sustainable transport improvements and the TA will take this committed infrastructure into account.
- 6.5.8 It is recognised that opportunities to maximise sustainable transport solutions will vary from urban to rural areas, and the adopted South Cambridgeshire Local Plan notes that South Cambridgeshire is predominantly a rural district, meaning that the car will remain an essential mode of travel for some, playing a role in improving access to local services and facilities but the committed CSET will help change this mindset.
- 6.5.9 A key part of the Site's transport strategy is therefore to maximise the use of non-car modes of travel to access the site, therefore tackling habitual use of the private car. This means accommodating and maximising the committed CSET sustainable infrastructure and devising a transport strategy which embraces behavioural and technological changes that are already taking place, and where many people in the future choose not to travel by the private car. It also recognises the serious health and environmental concerns that continued car use will bring, along with the associated levels of traffic congestion. The focus for transport mitigation and improvements will therefore be on non-car modes of travel and looking to the future, rather than perpetuating car use by planning the strategy on the basis of past travel patterns where car travel has dominated.

6.6 Cambridgeshire Quality Charter for Growth (2010) – Four C's

- 6.6.1 As outlined Section 3 at the heart of the strategy for this site are the four C's - Community, Connectivity, Character and Climate Proofing, with a clear focus the 9 key points for 'Connectivity' forming the basis for this Access & Movement Strategy.
- 6.6.2 Below is a list of the 9 key connectivity points and how the development of the masterplan strategy has focused on each.
- i. Public transport in place at the start of the development – to encourage people to get used to green options.
 - a. The masterplan has been designed to allocate land for the CSET busway to run through the site and connect walking / cycling routes directly into this key sustainable corridor.
 - b. The layout has also been designed to accommodate the current alignment of the CSET Phase 2 busway, but also allow for the flexibility to merge sections of the busway, for example as the main road and busway cross over the River Granta can be combined to limit land take, costs and improve landscaping opportunities.
 - c. The masterplan has allowed for internal primary roads to be designed to accommodate local buses linking into the site and CSET bus corridor for future proofing.
 - ii. Public transport should integrate with existing transport systems with frequent service and stops.
 - a. To work with and connect the CSET bus corridor with the wider site, the masterplan has been designed to account for local bus services diverting into and through the site and connecting up with the busway and Travel Hub.
 - b. The site is located adjacent to the A1307 with existing bus stops located along the site. These stops are served by a 30 minute frequency to Cambridge City Centre, Addenbrooke's Hospital, Babraham Research Campus, Great Abington, Linton, and Haverhill.
 - c. Improvements to bus infrastructure have been introduced along the A1307 (bus lanes, improved crossing facilities and bus stop upgrades) as part of CSET Phase 1 and the site will benefit from short walking distance to these stops.
 - iii. Linkages with existing and potential employment opportunities should be recognised.
 - a. One of the many key benefits of the site is the potential linkage to the existing Babraham Campus and the need for R&D land uses to meet the existing fast growth in the sector in this area of Cambridgeshire. Combined with this is the desire to provide residential plots for this fast growing community if R&D specialists.
 - b. The committed CSET bus corridor through the site will link the site to a number of existing, committed and future key employment development areas around Cambridge – including Eddington, West Cambridge, Cambridge Science Park, St John's Innovation Park, Cambridge Biomedical Campus, and Granta Park.

- iv. New developments should contribute to the wider environmental goals for the Cambridge area – enhancing the feasibility of walking and cycling.
 - a. The strategy includes for a significant proportion of the site to be enhanced as a County Park, with the provision walking/cycling routes across the A1307 and into this area.
 - b. Green corridors through the site will encourage east-west walking/cycling movement through the site.
- v. The streets, footpaths and other links to major urban extensions should be designed as a user hierarchy – it should be clear who and what they are for. Primacy should be given to walking, cycling and community transport.
 - a. The entire masterplan has been developed on the principle of the walking, cycling public transport hierarchy.
 - b. The masterplan includes for a street network that will discourage rat running through the site, by; avoiding straight roads, allowing for walk/cycle cut throughs, breaks in motor vehicle routes, and introducing natural traffic calming measures to reduce vehicle speeds. There is not one main road designed to run through the entire site from one boundary to the other, in order to promote and encourage sustainable travel.
 - c. Traffic through the existing Babraham High Street will be limited through measures to stop this road being a through route to/from the development. These measures will include limiting the ability for potential rat runners at the A1307 / High Street junction and the bridge over the River Granta south of Babraham.
 - d. The masterplan includes for a key healthy green pedestrian/cycle route running from the western boundary, heading east into the central core of the site. This healthy route will be focused to encourage walking, cycling and green landscaping through this corridor. Residents will therefore have the opportunity to walk/cycle east-west through the site and then onto local employment sites such as Granta Park and BRC.
- vi. Easy mobility for all, including those using wheelchairs and pushchairs should be taken into account.
 - a. With the masterplan focusing on the sustainable pedestrian and cycle network, the corridor widths and alignment throughout the site will allow for appropriate and direct wheelchair and pushchair accessibility.
- vii. Bus stops should offer well designed waiting areas, providing information on services and local facilities, and should feel safe and overlooked.
 - a. The masterplan has been designed to allow for sufficient space to accommodate well designed bus stop infrastructure along key primary routes.
 - b. The site is located along the boundary of the committed CSET Travel Hub and the masterplan has been designed to link walking / cycling routes into this hub and also stops along the CSET bus corridor. The Travel Hub will benefit from a combined commitment to provide well designed bus stop infrastructure in a location that will benefit from a significant uplift in passenger demand from the proposed site, therefore allowing for a safe and highly used hub with a high standard of public realm provision.

- viii. Parking management such as charges and the provision of car sharing / car clubs should be used to discourage unnecessary car use.
 - a. In addition to the highly sustainable committed transport infrastructure running through the site the scale of the site offers great potential to integrate appropriate car sharing and car club infrastructure to further discourage unnecessary car use. This can be introduced as part of a car club area for residents (as part of a successful Travel Plan) and also car sharing spaces within existing and future places of employment/destinations (education land use, existing BRC, employment, R&D land, and local centres).
- ix. Road design should include permeable surfaces.
 - a. Permeable surfaces have and will continue to be considered as the masterplan is developed.

7 Summary and Conclusion

7.1 Summary

- 7.1.1 This Transport Strategic Overview and Access and Movement Strategy sets out the high-level transport strategy to assist with the promotion of a new garden community on Land at Babraham at the Regulation 18 'Preferred Options' stage of the emerging Greater Cambridge Local Plan.
- 7.1.2 The Site's location is paramount to why developing a garden community here will meet sustainable transport objectives of maximising non-car travel modes, whereby future residents of the Greater Cambridge area can live their lives without the need to rely on the private car, and meaning we can deliver a new residential development where the private car does not dominate. It is next to or very near important employment centres, including the Babraham Research Campus, the Genome Campus and Granta Park.
- 7.1.3 The development will integrate with existing and proposed walking, cycling and public transport networks, namely the Greater Cambridge Partnership's Cambridge South East Transport scheme (CSETs), providing direct non-car connection between the site and the Cambridge Biomedical Campus and Cambridge City Centre, and thereafter to the other key employment areas of Cambridge at the Northern Fringe via onward travel from Cambridge Station either via the train itself to Cambridge North or the Chisholm Trail for cyclists, or conventional bus services, and West Cambridge and North West Cambridge via the Cambourne to Cambridge Better Public Transport Scheme.
- 7.1.4 The site will therefore have excellent non-car connectivity with surrounding areas. It is in close proximity to other key employment areas in the "Rural Southern Cluster" (i.e. Genome Campus, Babraham Research Campus and Granta Park), meaning reduced travel distances to work and greater opportunities for non-car travel to these work locations. And the development itself is mixed use, therefore a number of trips will remain within the site, and not impact on surrounding transport networks.
- 7.1.5 Through its excellent location and non-car transport links, the garden community will address the habitual use of the private car, and provide a high quality place for people to live their lives in a healthy and safe environment.

7.2 Conclusion

- 7.2.1 With the implementation of this strategy combined with the GCP's sustainable CSET commitments, it is considered that the Garden Community Site is deliverable, accords with national and local transport policy guidance, and that therefore there are no transport nor highways reasons why Land at Babraham should not be allocated for development in the Greater Cambridge Local Plan.

Appendix A Framework Masterplan



- Key**
- Site boundary
 - Development parcels
 - CSET Phase 2 bus and cycle route
 - Proposed bus stop
 - Primary School
 - Secondary school
 - Larger centre
 - Local centre
 - Potential Research and Development area
 - Employment area
 - ★ Historic bunker site
 - ★ Area of historic crop enclosure (Roman camp)
 - SUDS

0m 100m 200m 300m 400m

CSM REGULATIONS 2015: All current drawings and specifications for the project must be read in conjunction with the Designer's Hazard and Environment Assessment Record. All intellectual property rights reserved

Rev	Date	Description	Dwn	Chk	Drawn	AS
A	08/10/21	First issue	AS	SK	AS	SK
B	21/10/21	Second issue	AS	CY	AS	SK
C	01/11/21	Changes to development parcels	AS	CT	AS	SK
C	16/11/21	Changes to SUDS and development parcels	AS	CY	AS	SK

Scale @ A1 1:5000

Land At Babraham
 Concept Masterplan Site Wide
 Option with secondary school

BA9645 SK04
REV - C
 For information





- Key**
- Site boundary
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Rev	Date	Description	Dwn	Chk	Drawn	AS
A	08/10/21	First issue	AS	SK	Checked	SK
B	21/10/21	Second issue	AS	CY	Date	06/10/21
C	01/11/21	Changes to development parcels	AS	CT	Scale @ A1	1:5000
C	16/11/21	Changes to SUDS and development parcels	AS	CY		

Land At Babraham
 Concept Masterplan Site Wide
 Option without secondary school

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REV - C
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