

2.0 Social Benefits

2.1 Introduction

Per the Original Application scheme, a major focus of the of the masterplan vision has been the creation of an active local destination or centre at street level with a varied mix of shops, restaurants, cafes, leisure and community spaces that will cater for all budgets.

With a 15-minute catchment area that reaches into Abbey, Romsey, Petersfield and Market wards, the Beehive Redevelopment can act as a local centre to a diverse population of Cambridge residents with the vast majority of the catchment area being residential, and the majority of mixed-use floor space being large format or national high-street uses, the masterplan can bring a new and exciting mix of useful spaces to the area.

A facility that will add to the variety of amenities available to the local community. The Local Centre and Public Realm Strategy ensures that the new Local Centre will add to and compliment the local offer, rather than compete with it.

5,100m²

Mixed use local centre at ground floor

17

Useful shops, services cafés and leisure spaces

1

Dedicated Community Space minimum

3,700m²

New civic plaza

6

Distinctive character areas



2.0 Social Benefits

2.2 A New Local Centre for All

Main Benefit

2.2.1 A New High-Quality Local Centre

The masterplan for the redevelopment of the Beehive Centre creates new streets and open spaces that combine with useful shops, services, cafes, and leisure spaces within the proposed buildings. This will create a new part of the city that provides a vibrant new local centre for the local community, notably for Abbey, Petersfield, and Romsey wards. The new centre is designed to be used and enjoyed by everyone, with no barriers to access. Partnerships with local groups will help to create areas and spaces of interest for a wide range of people.

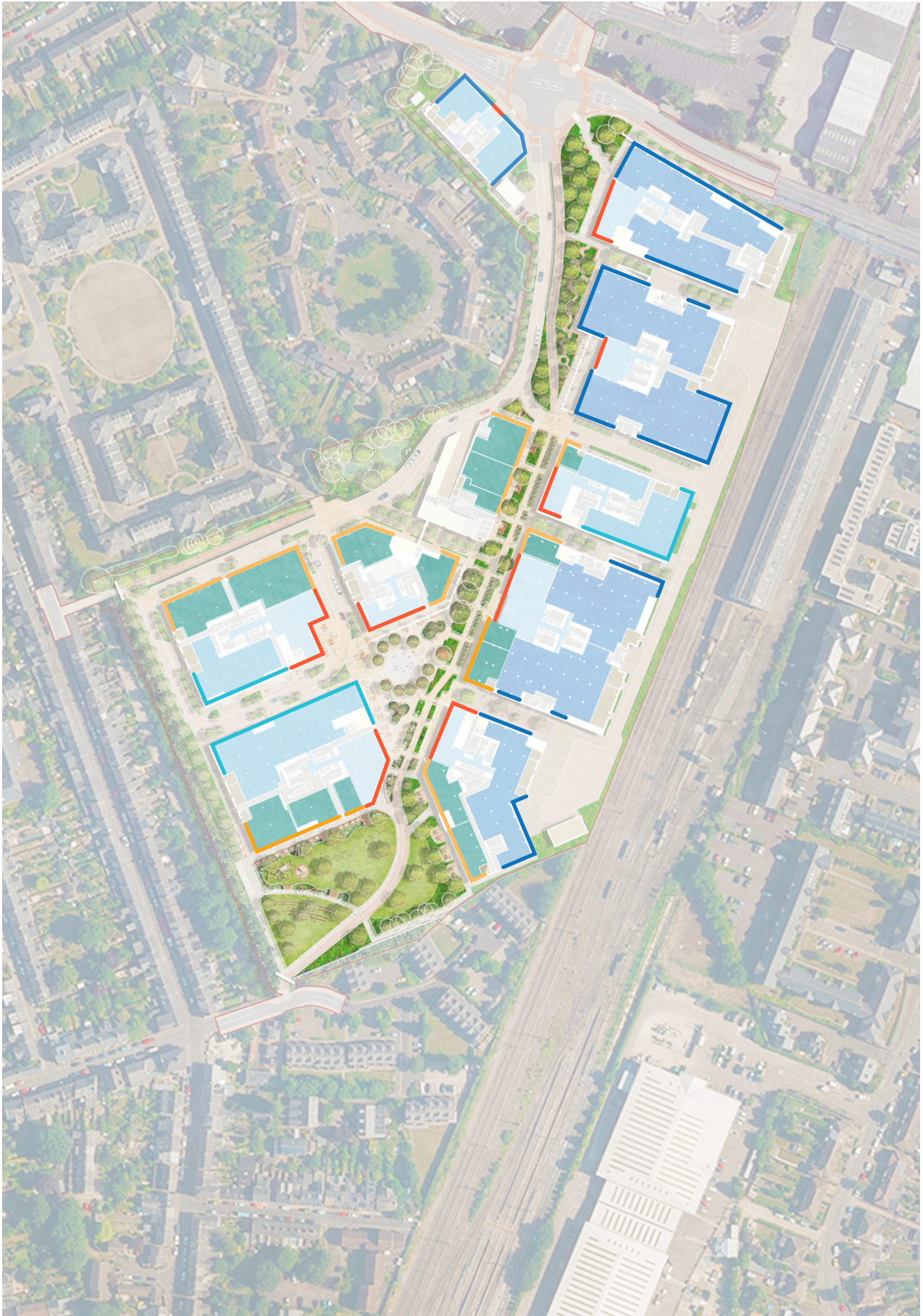
The masterplan for the buildings and the landscape have been developed in tandem to create a vision for a place that can act as:

- A useful local shopping destination with a retail mix informed by local people and interest groups, including Indie Cambridge.
- A place to come and enjoy open spaces alongside active buildings.
- A social hub with a programme of events focused around the community spaces and the new public open spaces.
- A place to be active, supported by initiatives such as Cam Skate's 'Skate the Streets'.
- A place to come to work, with opportunities at all skill levels. The local centre will be a facility that adds to the variety of amenities available to the local community.

The Local Centre and Public Realm Management Strategy ensures that the new Local Centre will add to and complement the local offer.

The Development will deliver an exceptional and significant new public amenity.

Delivered by: All Phases
Secured by: Parameter Plans, Local Centre and Public Realm Management Strategy, Wayfinding Strategy, Planning Conditions, S106 (triggers to be agreed)



- Local Centre Units
- Local Centre Frontage
- Lobby Frontage
- Office Frontage
- Lab Frontage

2.0 Social Benefits

2.2 A New Local Centre for All

Supporting Details

New and Varied Public Open Spaces

2.6 hectares of open space, which will include for a wide range of spaces and uses, including a community park.

A strategy to form a place that will cater for a wide range of the community.

Except for the ecology area and service yards, spaces will be accessible to the public without gates or any other barriers.

A considerable benefit that responds to the leading issue that arose from stakeholder engagement.

Secured by: Plans, Landscape Management Plan, Local Centre and Public Realm Management Strategy, Wayfinding Strategy, Planning Conditions, S106 (triggers to be agreed)

A Destination Place

The new ground plane environment will be a more valuable new public asset than merely the contribution of the individual components. The proposal will create a unique offer within Cambridge where outdoor green amenity space for public use is bounded by active ground floor mixed-use spaces within buildings.

This relationship brings the opportunity to create spaces with a unique identity where people can come to socialise within the landscape and mixed-use ground floor.

The character and scale of these spaces, as well as the uses within the neighbouring buildings are controlled within the Parameter Plans.

The Wayfinding Strategy will assist to help create a recognisable place and ensure a clear sense of welcome and inclusivity so all can feel able to access the new facilities and opportunities created by the development.

Secured by: Plans, Local Centre and Public Realm Management Strategy, Wayfinding Strategy, Planning Conditions

Active Mixed-Use Ground Floor Spaces

The proposals can accommodate circa 5,200m² of mixed-use ground floor space including around new shops, cafes, services, and mixed-use spaces. These mixed-use spaces will form a new Local Centre set within a high-quality landscape and public realm. These are to provide a wide range of new shops and amenities for the employees on the redeveloped site and the wider community.

The new offer will feature a more diverse mix of uses such as leisure, health and wellness, and retail including for local shops. Railpen has partnered with Indie Cambridge to help guide the mix of ground floor uses to create a vibrant and popular destination for local people that caters for all budgets, provides independent retail to complement existing facilities and contributes to the success of the city.

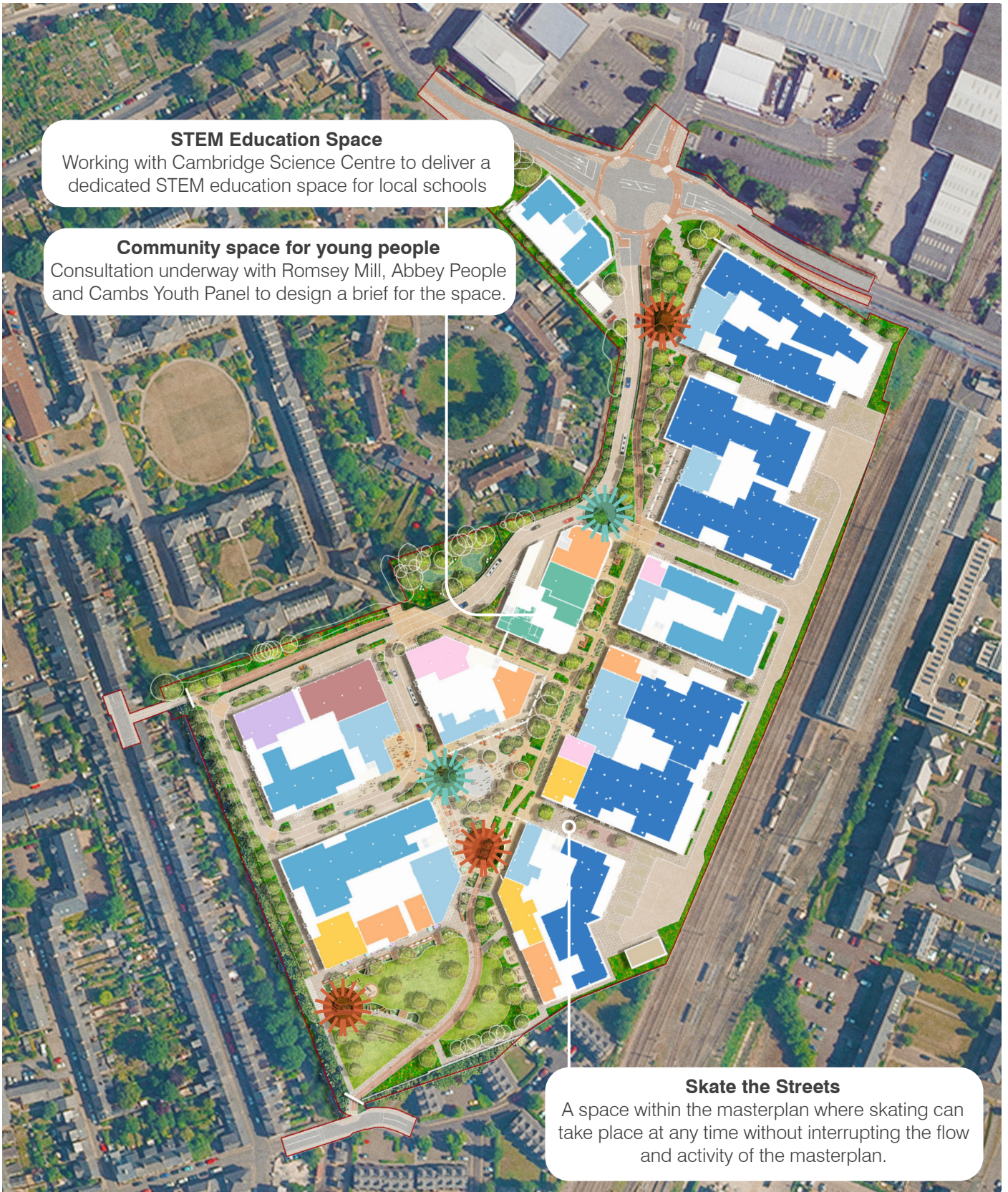
The community space in the heart of the Site will add to the vibrancy and offer and will include public toilet provision.








Leasing strategies will include an element of convenience retail, likely as a small-format supermarket store.

The proposals are not just for a collection of new shops/amenities but is well-considered to create an attractive and welcoming place, within which the new indoor facilities can be grouped around and create a dynamic relationship with the outdoor spaces. It will be curated, maintained and managed through the Local Centre and Public Realm Management Strategy.

Delivered by: All Phases

Secured by: Plans, Planning Conditions for use



- | | | | | | |
|--|-----------|---|-------------|---|---|
|  | Workplace |  | Retail |  | Public Art / Flexible Space for Artistic or Cultural Activities |
|  | Lobby |  | Supermarket |  | Opportunity for Play-on-the-way |
|  | Community |  | Restaurant | | |
|  | Gym |  | Cafe | | |

2.0 Social Benefits

2.3 New Community Provision

Main Benefit

2.3.1 Local Partnerships and New Community Uses

2.3.1.1

The proposals include for a number of specified facilities arising out of local engagement and stakeholder discussions, being facilities that the scheme can accommodate and help to directly address unmet local needs.

Listed below are some of the issues and related needs identified through engagement with the local community:

Relationship between people and place:

- There is a lack of facilities for young people (7-18-year-olds), such as skate parks.
- Romsey ward is described as lacking a library, benches to socialise, a community centre that is welcoming to everyone.
- While the greater focus has been on the provision for young people through consultation, to ensure that the provision will cater for everyone and all ages.

Making a unique place that does not replicate what works locally:

- Residents have little interest in replicating what is already working in the local area.
- Creating an interactive space where people can meet, exchange, and learn from each other:
- Stakeholders noted there was a social divide between Abbey Ward and Petersfield Ward residents.

These issues underpin the inclusion of the specialised community uses that the Proposed Development is proposing to bring forward. These include:

Youth and Community Space

Railpen has worked with a number of local organisations, including Abbey People, Cambs Youth Panel and Romsey Mill, to guide the design of a new youth and community space at the Beehive Centre. The new facility will provide a dedicated space for young people and the wider community, in particular meeting a shortfall for youth provision locally. It is expected that the facility will comprise two activity

rooms, studio space, centre management and publicly accessible toilets, including a Changing Places facility.

STEM Education

The proposed space will be an energetic hub of youth engagement and activity throughout the day, providing an exceptional and distinctive 'STEM' educational resource nestled in the heart of a vibrant Beehive community.

Cam Skate – Skate the streets

Railpen has partnered with Cam Skate to incorporate skateboarding and roller skating within the heart of the Beehive redevelopment through the integration of skateable features into the built environment. Consultation sessions with local skaters of all ages and abilities mean that architectural features and spaces are designed with the input of the people who will use them, ensuring the plans meet the needs of skaters and pedestrians.

Delivered by:

Elements delivered in first phase

- **Youth and Community Space**
- **STEM Education Space**

Delivered after first phase

- **Cam Skate Skate the Streets**

Secured by: Plans, Social Infrastructure Strategy, Planning Condition, S106 (triggers to be agreed)



STEM Educational Space Powered by Cambridge Science Centre



iGlu Powered by Cambs Youth Panel



Beehive Community Space

Supporting Details

Delivering Inclusive Design

Red2Green

Railpen has created focus groups with Red2Green to look closely at site plans and provide ideas on how to make the site more accessible for neurodiverse people. Red2Green is a Cambridgeshire charity providing opportunities for young adults and adults with learning disabilities and autism. They offer person-centred care to support their clients with life, education, and employment skills, as well as enabling positive mental health. Red2Green also has an Autism in the Workplace service which helps employers promote neurodiversity inclusion through training and long-term employee support.

Make Space for Girls

Railpen has partnered with Make Space for Girls and Julia King Associates (JKA) to work with local young women and girls to co-design part of the external public space in the Beehive Centre redevelopment.

Secured by: Design Code, Parameter Plans, S106 (triggers to be agreed), Planning Condition

Achieving an Improvement to Health and Well-being

An opportunity in increasing health and well-being is possible by allowing people to come into contact with an increased amount of both flora and fauna, varying season by season. This is to be achieved through an imaginative planting design that changes throughout the year and connects people to nature and wildlife through different senses: smell, taste, sound, and visual stimuli.

Secured by: Parameter Plans, Landscape Strategy, Planning Condition, S106 (triggers to be agreed)

New Provision for Young People

The objective assessment of local needs at the outset of the project undertaken by Social Life found that the greatest demand for new community provision was needed for young people.

The Public Realm and Local Centre creates social and cultural opportunities by providing flexible spaces that can accommodate community events, cultural celebrations, and seasonal festivities.

Provision of spaces and facilities for young people to address a shortfall in the local area and respond to local consultation. The Applicant continues to work with the community to ascertain youth requirements and will continue to do so through the delivery and operational stages as set out within the Public Realm and Local Centre Strategy.

Young people would also have a role within the Public Art preparation.

Secured by: Plans, Public Art Strategy, Public Realm and Local Centre Strategy, Planning Condition, S106 (triggers to be agreed)

A Safer Place

The redeveloped centre will be a safer place by design, and it will feel safer. This will be accomplished through a considered layout to achieve vastly improved natural surveillance, better lines of sight for all routes, active uses in the evening, well-considered lighting and an on-site security presence, including CCTV security

Secured by: Parameter Plans, Landscape Strategy, Local Centre and Public Realm Management Strategy, Planning Condition, S106 (triggers to be agreed)

3.0 Landscape Benefits

3.1 Introduction

The public realm-led approach to the masterplan has created a series of well-scaled places and spaces that will improve local access to open and green spaces.

At present the site is dominated mostly by the hard, impermeable surfaces required of the current layout of the site, the primary use of which by area is car parking.

Central to our plans is the creation of new public realm and green spaces for the public that will be free to enjoy all year round, including a new park and civic plaza.

The central space of the development, the Beehive Greenway will act as a single continuous landscape for pedestrians and cyclists, intermittently broken by highways which act as boundaries to define character areas within the wider landscape.

The landscape design will be informed by ongoing community consultation and will include spaces dedicated for community use. The character areas within the landscape inform and respond to the proposed uses for the major landscape spaces and will create spaces for leisure, places for movement and places for all.

450m

Length of central urban and green space - the Beehive Greenway

100%

Biodiversity Net Gain Aspirational Target

7000m²

New park, Hive Park, at the southern entrance

2.6

hectares of open space

290

New trees planted

The landscape provision responds to the Council's Open Space and Recreation Strategy assessment for Petersfield, Abbey and Romsey by building within the scheme a strategy to address the identified shortfalls of play area for older children, outdoor spaces for teenagers, informal open spaces and natural and semi natural green spaces. A better understanding of the needs regarding uses and amenities suitable for teenagers came from working together with various organisations and community groups such as Cambridge Science Centre, Cam Skate, Make Space for girls and Camps Youth Panel.

The landscape and public realm design was informed by workshops and conversations throughout the Revised Application Scheme design

development. Within this, a new series of natural green spaces have been introduced including a new southern park, civic plaza and a wildlife area in replacement for the previous wetland. The variety of character areas will allow for areas of densely tree planted open spaces where native species with high ecological value (given that it provides habitat, cover, and nesting sites for birds and small mammals as well as food for invertebrates and pollinators) are favoured.

The application includes for the Local Centre and Public Realm Management Strategy to ensure that there is an active plan to deliver the scheme to the agree vision through implementation and long-term.



The Lanes



Garden Walk



Hive Park

3.0 Landscape Benefits

3.2 A Curated Local Centre Set into New Public Realm

Main Benefit

3.2.1 A Curated Local Centre Set into New Public Realm

The landscape design has been developed in conjunction with the buildings and ground floor uses to allow the inside and outside spaces to work together to create an active and lively public realm. The distinct character areas, set within a unified ground plane, add variety and choice to the lived-experience of being in the landscape. The high-quality spaces provide opportunity for a wide range of user groups to enjoy the public spaces, which in turn will contribute to the Local Centre by encouraging interaction, chance encounter and fostering a sense of community.

The landscape will provide a chance for people to come into contact with nature, with tangible benefits to health and well-being. The proposal will create spaces of different sizes and characters, but with flexibility in mind to enable them to be used in a variety of ways to support the needs of a diverse community.

The application includes for a 'Vision' and 'Delivery Strategy' within the Local Centre and Public Realm Management Strategy to ensure that there is an active plan to deliver the scheme to the vision through implementation and long-term.

Delivered by: All phases
Secured by: Parameter Plans, Design Code, Local Centre and Public Realm Management Strategy, Wayfinding Strategy, Planning Condition

1 Abbey Grove

3 Maple Square

5 The Lanes

2 Garden Walk

4 Hive Park



3.0 Landscape Benefits

3.3 Landscape Character Areas

Supporting Details

Hive Park

A new park of c.7,000m². Larger than the locally significant St Matthew's piece, the new park will deliver:

- Green open space for lesiure and amenity,
- New tree planting with focus on large trees
- The connective Beehive Greenway active travel route
- Active frontage in the ground floors of neighbouring buildings

Delivered by: First Phase

Secured by: Design Codes, Planning Condition

Maple Square

A mixed-use public plaza that fuses programmable space with green planting, Maple Square will deliver:

- Space for year-round outdoor events
- Ground floor activation by commercial lobbies and mixed-use local centre units
- A mix of retained and new tree planting
- The safe and legible intergration of the Beehive Greenway

Delivered by: After First Phase

Secured by: Design Codes, Local Centre and Public Realm Strategy. Planning Condition



1 Abbey Grove



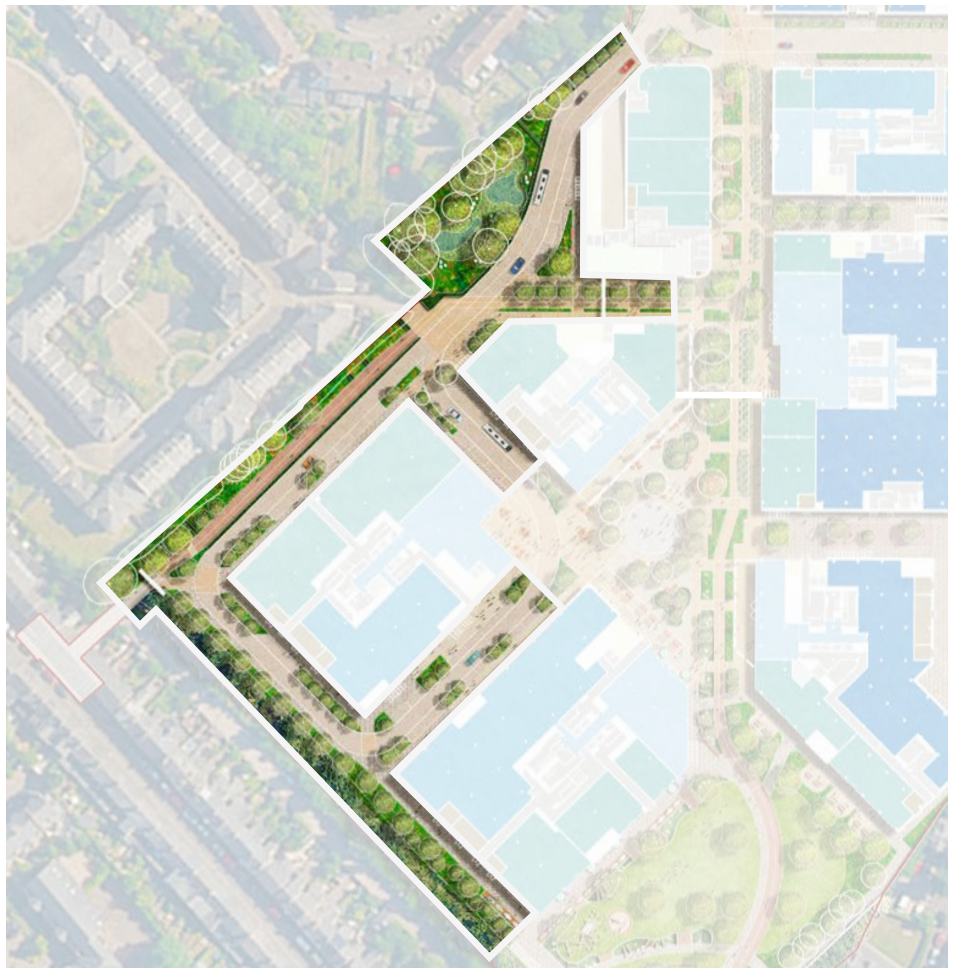
2 Garden Walk



3 Maple Square



5 Hive Park



6 The Lanes

4.0 Ecological Benefits

4.1 Benefit and Details

Main Benefit

4.1.1 Significant Enhancements to Amount and Quality of Biodiverse Habitats

The scheme design includes for ecology as a key part of the masterplan and to help make a much-improved place. The proposals include for a significant increase in biodiversity net gain, a net increase in trees and well-considered planting to create an enhanced landscape which allows for ecology to thrive all year-round. The habitats to be created are informed by local habitat priorities.

The proposals will deliver a significant ecological enhancement.

Delivered by: All phases
Secured by: Ecology Report, BNG Assessment, Parameter Plans

Supporting Details

Biodiversity Net Gain uplift (BNG)

A BNG increase of greater than 100% has been forecast for the proposals - considerably higher than the national target of 10% and the 20% sought locally. This will be achieved through the creation of new habitats, including the proposed wetland area, tree and hedge planting, biodiverse planting at site boundaries and green / brown roofs to the new buildings. Ecology has been embedded into the design process and within the scheme drawings to achieve a significant ecological enhancement.

Secured by: BNG Assessment, Planning Condition

Increase in Number, Quality and Longevity of Trees

The proposals retain 58 trees add 290 new trees and remove 61 trees. Those trees to be removed are informed by an Arboricultural Assessment and are predominantly the smaller trees throughout the existing surface car park. The larger trees along the site boundary are largely retained and will be part of the committed long-term landscape management strategy.

Strategic tree planting will include long-term growing trees species to ensure a strong tree legacy and one superior to the current site. Species will be chosen that contribute to biodiversity and are chosen for their climate resilience. The planting strategy will achieve a significant enhancement for ecology, character, and public enjoyment.

Secured by: Landscaping Plans and landscaping maintenance, Planning Condition

Strategy for Species-Specific Benefits

The pollen-rich planting incorporated into the proposed habitat will provide essential food resources for pollinators such as bees, butterflies, moths, beetles, and flies. By offering a diverse range of flowering plants, this will help sustain healthy and thriving pollinator populations. Additionally, the presence of pollinators will serve as a vital food source for bat, bird, and small mammal species. The development will provide nesting and roosting boxes for bats and birds in line with the Biodiversity SPD.

Secured by: Ecology Report, BNG Assessment, Planning Condition

Brown/ Green Roofs



Wetland



Community Garden/ Orchard



Abbey Grove



Boundary enhancements



5.0 Economic Benefits

5.1 Introduction

The creation of new workplace will dramatically change the employment landscape of the local area. There will be new opportunities for local people with 6,450 jobs in a variety of roles. This change is present at all levels of the skills spectrum and it is expected that entry level jobs will increase by 520 while high skilled jobs will increase by 4,010.

The development has the opportunity to address key employment and skills issues facing Greater Cambridge such as, the growing cost of living, the educational attainment gap, lack of mid-level skilled jobs, need for apprenticeships and improving diversity and inclusion within the life sciences sector. The Applicant is committed to working with all tenants to adhere to these commitments.

The following economic impacts are based on the most likely end-use of the proposal, including the illustrated use of lab-enabled buildings. Further information and economic impacts can be found in the Economic Impact Assessment.

6,450
total direct jobs
supported by
the Proposed
Development

1,590
increase in entry level
to mid skilled jobs over
the existing centre



5.0 Economic Benefits

5.2 New and Better Jobs for All

Main Benefit

5.1.1 Employment and Skills Action Plan

5.1.1.1

Within the Outline Planning Application is an Employment and Skills Strategy (ESS) that sets out the ambition for achieving benefits to the local community around employment and skills, including for an action plan to ensure tangible actions will deliver the ESS benefits. The ESS would see a significant benefit delivered to the local community through increased job opportunities and outreach programmes to actively ensure the opportunities are made available to all.

It is expected that this document will be conditioned as an approved document and a further planning condition imposed to secure an Employment and Skills Delivery Plan prior to first occupation of the site and subsequent stages thereafter.

The Delivery Plan would provide more detail on the specific measures to support the outreach and community support objectives. The Applicant would work with the council to identify potential opportunities for local people and maximise the skills opportunities arising from the proposals at that time. Such a Plan (or series of Plans) would be secured by planning condition as a requirement of any consent.

To ensure the strategy is successful, the Applicant would appoint an Employment and Skills Coordinator who would provide a point of contact between the council, principal construction contractor and tenants of the Proposed Development. This dedicated person would be responsible for the delivery of the employment and skills commitments outlined in the S106 agreement.

Delivered by:

Collaboration with these organisations commencing from enabling works stage:

- **Abbey People**
- **Form the Future**
- **FutureIn**
- **Cambridge City Council and Cambridgeshire and Peterborough Combined Authority**

Secured by:

Employment and Skills Strategy, Planning Condition, S106 (triggers to be agreed)



FORM THE FUTURE



Number of jobs by occupation level for the **Proposed** Development



Number of jobs by occupation level for the **Existing** Site

+4,025

Management, professional and technical jobs

+2,130

Entry-level to mid-level jobs

- Managers, Directors and Senior Officials
- Professional Occupations
- Associate Professional and Technical
- Skilled Trades Occupations
- Administrative and Secretarial
- Caring, Leisure and other service
- Sales and Customer Service
- Process, plant and machine operatives
- Elementary occupations
- = 5 employees

5.0 Economic Benefits

5.2 New and Better Jobs for All

Supporting Details

A Significant Increase in Operational Employment

There are approximately 855 (670 FTE) existing jobs at the Beehive Centre. The Proposed Development would support 6,450 (5,755 FTE) jobs in total. This is equivalent to 5,590 gross additional (5,080 FTE) jobs compared to existing uses. This significant uplift will provide job opportunities locally.

Accounting for displaced jobs from elsewhere and indirect and induced impacts from the supply chain and worker expenditure, the proposals will support up to 7,130 net additional (6,480 FTE) jobs.

Secured by: Employment and Skills Strategy, Planning Condition

Significant Construction Employment and Delivering Social Value

The Applicant will work with top tier contractors who are experienced at targeting and training local people for employment through a clear action plan.

The Applicant is committed to working with a contractor(s) with a commitment to providing apprenticeships and working with the council to support the employment and skills aims. These commitments will be passed down contractually through the supply chain.

There is an action within the Employment and Skills Strategy to pursue the opportunity to foster a working programme of partnerships, including with the Marshalls Skills Academy in Cambridge.

Secured by: Employment and Skills Strategy, Planning Condition

Bolstering Local Employment - Local Jobs Advertisements

The Applicant will work with local job boards and Cambridge City Council, notifying them of relevant opportunities. The Applicant is committed to notification of job vacancies arising from both the construction and end-use occupation to the Council

or any other agency nominated by the Council.

This will ensure that individuals are aware of new opportunities that may be accessed by them within the Proposed Development. This would be a targeted strategy to ensure that a wide audience is aware of the job opportunities, especially the identified areas of greater local deprivation.

This is an action set within the Employment and Skills Strategy.

Secured by: Employment and Skills Strategy, Planning Condition

Collaboration with Existing Employment and Skills Programmes to Reduce the Skills Gap and Increase Job Opportunities for All

The Applicant will explore opportunities to collaborate with existing employment and skills programmes.

The Applicant will partner with existing successful outreach programmes that are bigger in scale and well-established. The Applicant will work with partners who target existing issues, with a focus to increase job opportunities to those people in the more deprived local areas. For example, the partners may provide programmes to support priority groups, or they may focus on related sectors such as life science. Some emerging long-term partners include:

Abbey People (Abbey Works initiative)

The Proposed Development is situated in the Abbey ward. Many people within Abbey have issues with income and employment and would be keen to work part-time but lack the skills and pathways to do so. Abbey Works is a project which aims to help people to try roles in different industries which can help them understand areas of retraining or which apprenticeships to take. The Applicant has agreed to partner with Abbey People. This may consist of, for example, identifying roles at the Proposed Development that tenants would be willing to fill using a work placement (typically around 8 – 12 weeks). The scheme aims to have a continuous number of potential workers coming in, with the possibility of getting them into permanent roles

or apprenticeships. Beneficiaries of the scheme includes residents in CB5 postcodes, who are aged 16 or over and not in full time education or employment, or older adults, who have never worked or are long term unemployed (unemployed for at least a year). Therefore, becoming a partner organisation would meet a number of commitments outlined within the Employment and Skills Strategy (ESS), such as: providing adult training, focusing outreach on areas within Cambridge that are struggling, and providing new pathways into life sciences.

Form the Future

The Applicant is working with Form the Future to create a long-term programme working with schools and local educational organisations to ensure positive employment opportunities for young people.

FutureIN

FutureIN is a body who work with young homeless people and give them opportunities in construction. The Applicant is working with FutureIN to target construction opportunities to Abbey residents.

Cambridge City Council and Cambridgeshire and Peterborough Combined Authority (CPCA)

The Applicant is collaborating with Cambridge City Council and CPCA to ensure the objectives of the ESS and wider scheme match their requirements. Given the development will be built over many years it is expected that these requirements may change, and so the ESS will need to be regularly reviewed to ensure the objectives are still up to date.

Secured by: Employment and Skills Strategy,
Planning Condition

5.0 Economic Benefits

5.2 New and Better Jobs for All

Supporting Details

Jobs for All Skill Levels

The Proposed Development would support:

- 14% entry-level jobs (905 jobs), an uplift of 520 low-skilled jobs compared to the existing site.
- 19% mid-level jobs (1,225 jobs), an uplift of 1,070 compared to the existing site; and
- 67% high-level jobs (4,315 jobs), an uplift of 4,010 compared to the existing site.

The uplift of jobs across all levels is a significant benefit of the proposal. The benefit of the increase in low to mid-skilled roles is particularly significant because they directly respond to key local employment issues identified in and around Cambridge, outlined within the Employment and Skills Strategy. These include:

Lack of mid-level roles

The jobs market in Cambridge is focused on high-level occupations within specialised sectors. In 2021 there were 3,200 fewer workers in mid-level occupations in Cambridge compared to 2015. The Proposed Development's contribution of an additional 1,070 mid-skilled roles represents around 33% of the loss in mid-skilled qualifications since 2015.

Increasing demand for higher qualified workers, the education skills gap, and the adult skills gap

Evidence shows that there has been a growing demand for higher qualified workers in Cambridge. This has created an education and adult skills gap. Particularly for residents within areas of high deprivation in income and education, who, on average, are less qualified. The Proposed Development's increase in low and mid level opportunities will reduce the dependency for workers to require higher qualifications. This would improve accessibility within the Cambridge job market, help to reduce the skills gap, and reduce inequality.

Promoting equality in Cambridge

Cambridge is considered the most unequal city in the UK. The northeast part of Cambridge and areas around the Proposed Development are considered to be some of the most deprived in Cambridge and in the country. Particularly in terms of income,

education, skills and training. The Proposed Development's geographical location makes it well placed to help address these issues, by providing an increase in jobs across all skill levels (that would be well paid - see Cambridge Living Wage benefit below) and within the locality of the most deprived neighbourhoods in the city.

Secured by: Employment and Skills Strategy, Planning Condition

Deliver Cambridge Living Wage

Cambridge is ranked as the 5th most expensive city to live in the UK and is noted to be the most unequal city in the UK. A small but growing proportion of residents are being paid below the real living wage, 11% in 2021, up from 9% in 2020.

The Applicant will work with tenants at the Proposed Development to become a Cambridge living wage employer. The Cambridge Living Wage being recognised by Cambridge City Council. This will ensure that future employees, across all skill levels, at the Proposed Development have financial security over the course of their employment and increased salaries compared to those achieved on the site now, thereby helping to reduce the existing high level of inequality within the city.

Secured by: Employment and Skills Strategy, Planning Condition

Improving Diversity and Inclusion within the R&D Sector

The Applicant will encourage tenants to develop partnerships to promote routeways for priority groups into the types of jobs being offered by the Proposed Development. The Applicant will seek to improve representation in the life sciences sector by working with operators to provide as much data on diversity in their workforces, at all levels, and to seek pathways for priority groups into the types of jobs available.

An action set within the Employment and Skills Strategy.

Secured by: Employment and Skills Strategy, Planning Condition, S106 (triggers to be agreed)

Actions to Achieve Educational Equality

The Applicant has committed to ensuring tenants will engage with local primary and secondary schools and to work with the local authority and partners, wherever possible, such as the Careers and Enterprise Company to identify schools in deprived areas or with limited existing help. School engagement would help improve knowledge of the pathways to the life sciences sector, which is often a barrier for many students, and so improve the chances and opportunities to those children who may otherwise not be aware of a path into the R&D sector, at all skill levels.

The Applicant will seek that tenants focus their outreach and training opportunities on areas in Cambridge that are struggling, such as northeast Cambridge, under the guide of a Strategic Plan to be secured by planning condition as a requirement of any consent.

A continuing working arrangement with Form the Future is included for to help achieve this, along with links with Cambridge Science Centre, Cambridge Youth Panel and Make Space for Girls.

All to be achieved through the Employment and Skills Strategy, and in part by the Social Infrastructure Strategy, to be secured through planning condition.

Secured by: Employment and Skills Strategy, Planning Condition, S106 (triggers to be agreed)

Increase Apprenticeships to Help Address a Shortfall

Apprenticeships take up is low in Cambridge and Greater Cambridge. In 2021/22 there were 4.4 apprenticeships starts per 1,000 workers in 2021/22 in Cambridge, compared to 4.3 starts in Greater Cambridge. This is significantly lower than the regional and national rates of 12 and 13 starts per 1,000 workers, respectively.

It is both national and local policy to promote alternative routes into employment that differs from the higher education route.

The Applicant will ensure that contractors and tenants provide apprenticeships during the construction and operational phases. They will target to work with local bodies to ensure these are provided to learners from a variety of socio-economic backgrounds.

There is the potential for 135 'earn and learn' positions per year at the Proposed Development, based on a planning condition which ensures 2% of jobs generated to be 'earn and learn' positions. This is equivalent to 27% of the total number of apprenticeships starts in the 2021/22 academic year.

Secured by: Employment and Skills Strategy, Planning Condition, S106 (triggers to be agreed)

Promoting Equality in Cambridge, Including Mid-Level Skilled Job and the Adult Skills Gap

The Applicant will work with tenants to provide training and opportunities for both younger and older generations, set within a strategy set out in the Employment and Skills Plan.

The intention is to include for a partnership with the Cambridgeshire and Peterborough Combined Authority (CPCA) Adult Education Budget, which provides training to adults that lack qualifications helping to improve employment prospects in areas where levels of educational attainment are low, such as northeast Cambridge.

Secured by: Employment and Skills Strategy, Planning Condition, S106 (triggers to be agreed)

5.0 Economic Benefits

5.3 Wider Economic Benefits

Main Benefits

5.3.1 Vastly Increased Economic Output

£600m in additional economic output (GVA) will be supported by the new workforce annually. This is based on £660m in gross GVA generated for the Proposed Development set against £60m generated by the existing uses onsite. Annual tax revenues of between £180m and £240m are expected.

5.3.2 Vastly Increased Business Rates

Up to £11.4m in annual business rate payments. This is equivalent to an uplift of £8.5m per year, when compared to the £2.9m generated by the existing site uses per year.

5.3.3 Worker Expenditure within wider Economy

Based on the estimates of daily worker expenditure and conservatively assuming only 60% of workers will spend in the local area, it is estimated that the Proposed Development's workers would generate an additional £9.6m (£10.2m in total) in worker expenditure per year compared to the existing site.

5.3.4 Contribution to the Important R&D and Life Science Cluster

The importance of Cambridge and its knowledge-based R&D cluster is well-recognised, both locally and at the national level. This is particularly acute for the life science sector, which is a growing part of the Cambridge cluster. The importance to the Cambridge economy and the recognition of 'clusters' are acknowledged and supported by the adopted Local Plan.

The proposals include for high-quality and adaptive floorplates to cater for a large part of the R&D cluster, but expressly includes buildings that are designed to accommodate laboratory space for life science companies. The scale, adaptability and purpose-built design of the proposals to accommodate for this sector is of great benefit. There is an acute and evidenced need for more laboratory and R&D floorspace within Cambridge. The proposals would make a valuable and meaningful contribution to address this need on previously developed land in a highly sustainable location.

The location of the site is highly advantageous to contribute to the 'Cambridge Cluster', address an identified shortfall and to bolster the resilience and critical mass of a nationally important sector. This is a matter to which the National Planning Policy Framework attaches significant weight.

£11.4m

in annual business rate payments, equivalent to:

£8.5m

uplift in business rates per year when compared to the existing site.

£10.2m

worker expenditure per year



6.0 Transport Benefits

6.1 Introduction

The Beehive Redevelopment capitalises on a highly sustainable location to locate a new local centre and employment cluster. This central location comes without the many constraints of the city core, with high quality links to the rest of the city on foot, by bike, by public transport and by car.

Transport initiatives both on and off-site aim to foster a modal shift away from private car use towards active and sustainable travel modes. There will be a new direct cycle route through the site that connects to wider city initiatives by much improved entry points, including the re-design Coldham's Lane Cyclops junction.

The existing bus stop will be relocated to north of the new civic square with a new high quality stop with shelter, seating and live departure information. Additional services will increase the number of bus services to the site to 15 per hour at peak times.

While private car use is de-prioritised it is acknowledged that for some it will be the only suitable mode of travel. The number of car parking on site will be reduced from 885 to 395 spaces and a management plan will be in place to limit car access to those who need it. There will be 21 spaces that sit within the landscape for blue-badge parking and drop-off.

+12%

Increase in bus mode share

+25%

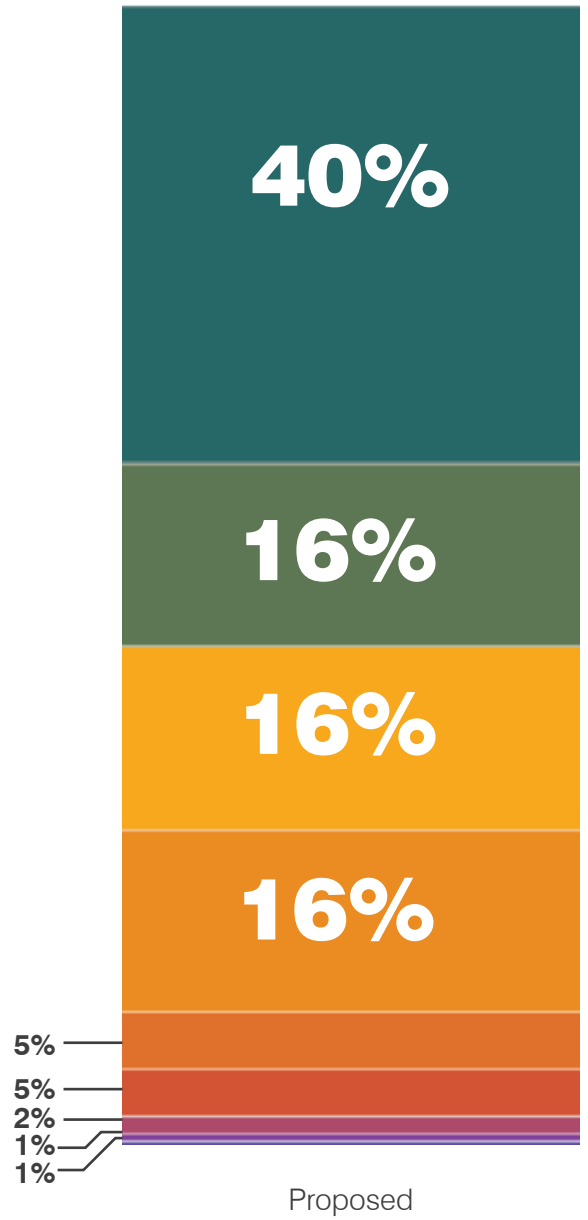
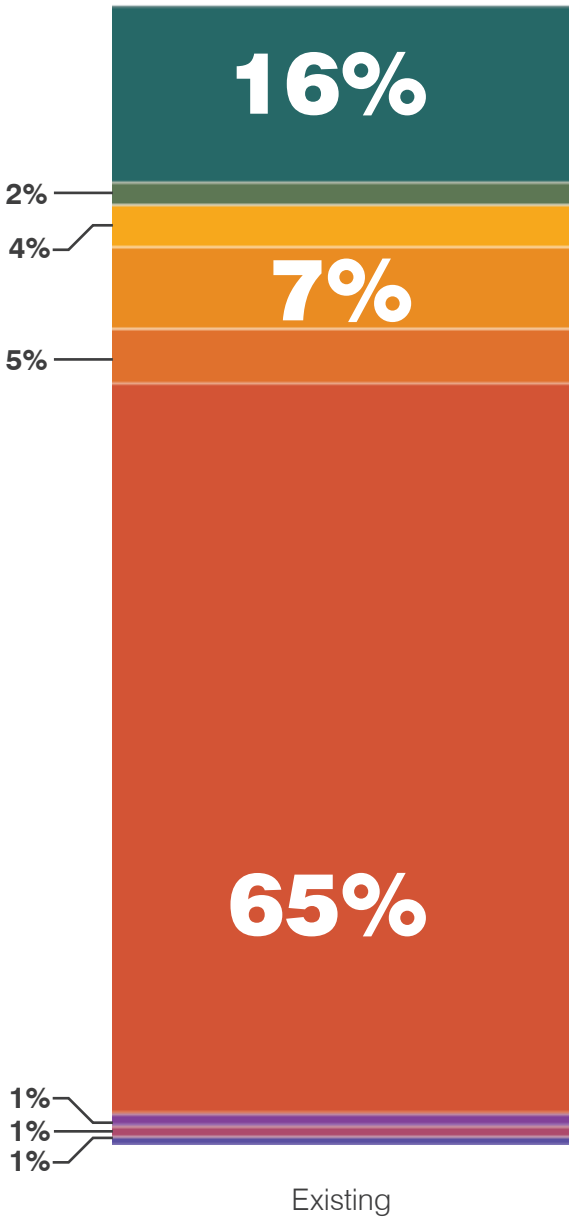
Increase in cycling mode share

-60%

Reduction in car driver mode share

+9%

Increase in walking mode share



A suite of on and off-site transport strategies will support a planned modal shift away from private car use towards active and sustainable transport.

- Cycle
- Rail
- Bus
- Walk
- Car Passenger
- Car Driver
- Other
- Motorbike
- Taxi

6.0 Transport Benefits

6.2 Much Improved Sustainable Transport

Main Benefits

6.2.1 A Strategy for Much Improved, and Greater Use of, Sustainable Transport

The transport strategy aligns with, and supports, the authorities' aspirations for greatly improved sustainable transport to reduce reliance on private car usage. This provides, directly or via s106 contributions, a range of measures including those described below:

Reducing Car Parking

The development reduces on-site car parking by 60% to 374 spaces and reduces the level of use of the car parking at the site. Access to parking will be closely controlled to ensure it is used on a needs-basis rather than by general staff.

The Proposed Development will result in a significant reduction in car use associated with the site by removing up to 10,000 two-way movements per weekday and 12,000 per weekend day.

Public Transport

Staff and visitor trips to and from the site will be notably catered for by a much improved public transport service (increased Park and Ride frequencies and new routes), and enhanced walking and cycling routes. All of which will be monitored, reviewed and managed through a progressive and targeted site-wide Travel Plan, to serve future employees/visitors to the site but also fully available to the wider community.

Off-site and Wider Benefits

The strategy removes barriers to walking, cycling and public transport use not just within the site and surrounding area, but further afield into the Cambridge built-up area. This benefits users of the site, local populations and the wider movement of people in Cambridge.

On-site Design Priorities

The ground plane has been designed to prioritise cyclists and pedestrians with private cars (except for some disabled spaces) constrained to a single parking location near the site entrance, so improving pedestrian and cycle routes into the site, linked into established routes.

Entry points into the site will be considerably improved from their existing condition. A site currently dominated by surface car parking will be reimagined, creating a series of legible and attractive streets and spaces made for people and not the car.

Enhanced Cycle Provision

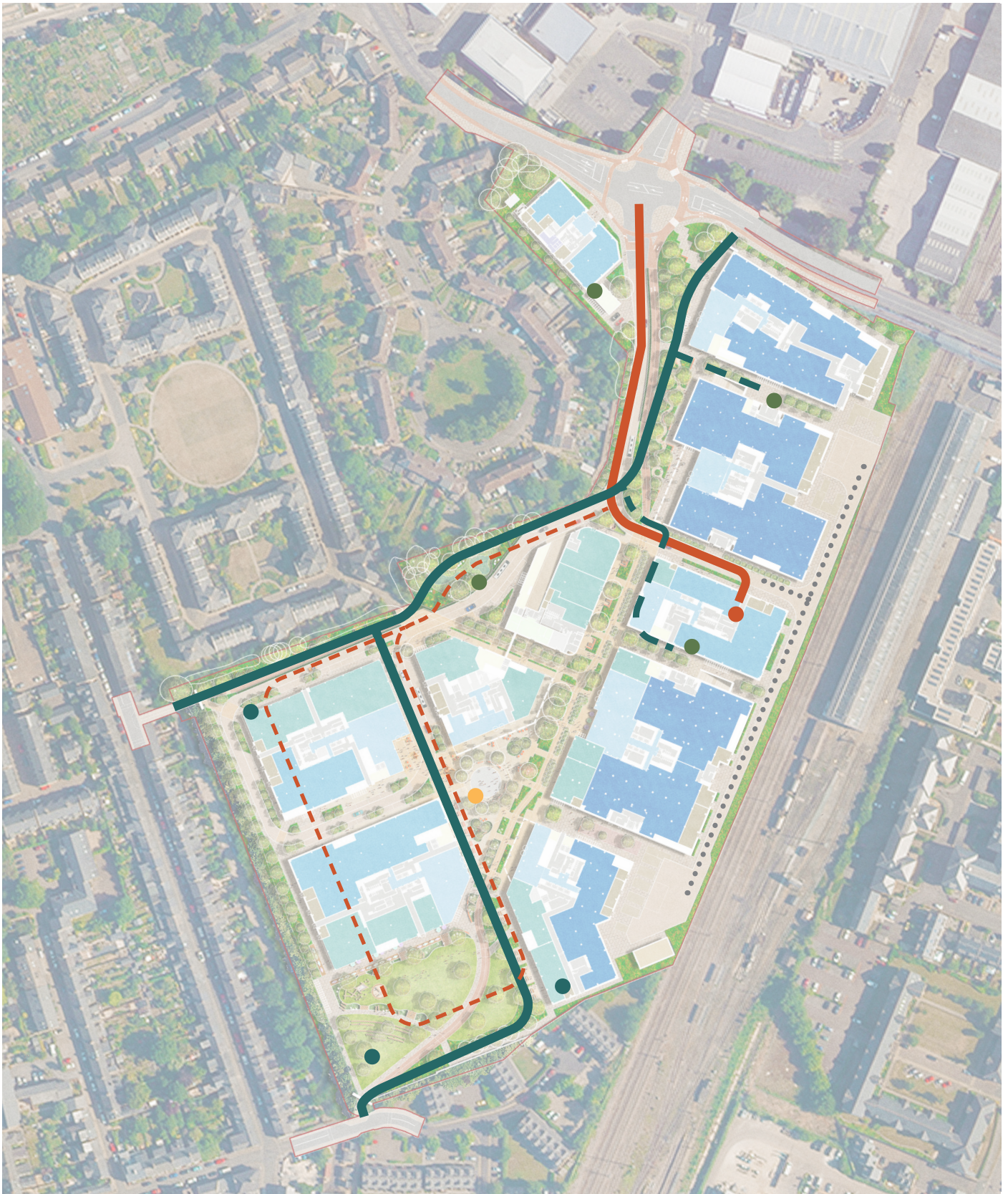
Safer, higher capacity cycle routes designed to LTN 1/20 standards – providing a link to the strategic cycle network including the City-wide roll-out of the Chisholm Trail. Exemplary cycle parking in convenient locations, catering for all types of cycles, that are covered, safe, and secure. Changing and showering facilities will be provided in all buildings.









Sustainable Transport Mode Share

The site provides for a strong mix of non-car modes – focused around the site-wide mobility hub at Plot 10, which serves as a focal point around which provision is planned for cycle and scooter hire, car-club facilities, public transport/network information, wayfinding signage and cycle maintenance facilities. This is a “planned-place” to support and encourage the use of non-private car modes to travel. The relocated and enhanced bus stop between Plot 8 and 9 is situated centrally and near to the civic plaza to encourage use of the bus services.

Delivered by: All Phases

Secured by: Transport Assessment, Travel Plan, Planning Condition, S106 (triggers to be agreed), S278



- | | | | | | |
|---|-----------------------|---|---------------------------------------|---|-------------------------|
|  | Primary cycle route |  | Primary vehicle route |  | Dedicated service route |
|  | Secondary cycle route |  | Secondary vehicle route and bus route |  | Bus Stop |
|  | Cycle parking |  | Car parking | | |

6.0 Transport Benefits

6.2 Much Improved Sustainable Transport

Supporting Details

Improved Sustainable Mode Share

The Transport Strategy targets a shift in mode share from the current reliance on private car use to significant emphasis on sustainable transport modes. Not only does this benefit the site and surrounding areas, but also aligns with City-wide initiatives to achieve the same.

The changes between existing and proposed mode shares are summarised below, highlighting the respective and notable scales of change. The existing mode shares are drawn from established Census data.

Delivered by: All Phases

Secured by: Transport Assessment, Travel Plan, Planning Condition, S106 (triggers to be agreed), S278

Monitor and Manage Regime

As part of the progressive and targeted site-wide Travel Plan, measures have been agreed with the Local Highway Authority to ensure car use is minimised and use of sustainable modes is maximised. The Travel Plan sets out the monitor and manage regime which will ensure that there is controlled and managed access to parking, sustainable transport is promoted and there remains to be an active, responsive, and targeted sustainable transport strategy in place through construction and into the operational stage.

This involves a positive feedback regime which is kept under regular review and is carried out in conjunction with the Local Highway Authority. This includes regular monitoring of both the on-site and off-site conditions, and will trigger additional measures, initiatives and/or incentives to maintain compliance with the targeted mode shares. Regular surveys will be carried out in support of this regime – both on-the-ground, and surveys of occupiers and users.

Delivered by: All Phases

Secured by: Transport Assessment, Travel Plan, Planning Condition, S106 (triggers to be agreed), S278

Significantly Enhanced Public Transport

Additional bus services, frequency and routing will help to address declining bus services and deliver a mode shift to sustainable options. Such services will be available to the users of the redeveloped Beehive Centre, but also fully so to the wider community.

Bus Service Enhancements proposed are:

- Newmarket Park and Ride – two additional buses (frequency of services increased per hour, in each direction), every other service extended to Cambridge Station.
- Milton Park and Ride – two additional buses to provide new service between Milton Park and Ride and the site.

Three additional routes based on current population densities (one bus per route from the outset, potential for two buses per route should demand require it):

- St Ives/Huntingdon – Site
- St Neots/Cambourne – Site
- Ely/Waterbeach – Site

The scope and extent of the potential enhancements has been positively received by the Cambridgeshire and Peterborough Combined Authority (as the public transport authority) and the bus strategy is in place to be secured through a planning consent for the Proposed Development.

The service enhancements are summarised below, which serve to provide a peak-hour frequency of up to 15 buses per hour.

This represents a considerable public benefit delivered by the Development due to the increased number of bus services and bus capacity available to the wider community to help make a meaningful contribution to the City becoming a zero-carbon community, reducing congestion and a move towards sustainable modes of travel.

Delivered by: All Phases

Secured by: Transport Assessment, Travel Plan, Planning Condition, S106 (triggers to be agreed), S278

Improving Coldham's Lane junction

The Proposed Development commits to making significant changes to the Coldham's Lane junction to the site to reduce its car dominated and engineered design and so improve the Coldham's Lane environment for those using sustainable travel modes moving through the junction and so be part of the wider approach to encourage people to use sustainable modes in favour of the private car.

Delivered by: All Phases

Secured by: Transport Assessment, Travel Plan, Plans, Planning Condition, S106 (triggers to be agreed) S278

Mode	Existing	Proposed	Change
Cycle	15.5%	40.0%	+25%
Train	1.9%	16.0%	+14%
Public Transport	4.4%	16.0%	+12%
On foot	6.9%	15.5%	+9%
Other	0.4%	1.5%	+1%
Taxi	0.5%	0.5%	0%
Motorcycle	1.1%	1.1%	0%
Car Passenger	4.6%	4.6%	0%
Car	64.8%	4.8%	-60%
Total	100.0%	100.0%	

Benefit 2.4.2

Route	Existing Services		New Buses (no.)	Proposed Services	
	Arrive/hr	Depart/hr		Arrive/hr	Depart/hr
Newmarket P&R	6	6	2	8	8
Milton P&R	0	0	2	4	4
St Neots to Site	0	0	2	1	1
Huntingdon to Site	0	0	2	1	1
Ely to Site	0	0	2	1	1
Peak Hour (bph)	6	6	10	15	15

Benefit 2.4.4

6.0 Transport Benefits

6.2 Much Improved Sustainable Transport

Supporting Details

Reducing On-Site Parking and Car Use

Car parking on site will be reduced by over half (56% reduction), reducing the intensity of parking space use by 5-10 times, due to the change in parking characteristics from retail car parking (with multiple turnover of use of spaces in any one day) to commercial use (with longer single use of spaces). This will be allied with making the car parking less convenient by placing it in only one part of the site and for it to be heavily managed and not freely open, allocated on a 'needs-based' rather than 'want-based' approach.

These measures will directly reduce the associated use of the private car as a direct benefit to the capacity of local roads, the push to a greater use of sustainable transport modes and improved air quality.

Delivered by: All Phases

Secured by: Transport Assessment, Travel Plan, Car Park Management Strategy, Planning Condition, S106 (triggers to be agreed), S278

Enhancing Walking and Cycling Infrastructure in and Around the Site

Routes to and from the site connecting to key interchanges (e.g., stations and city centre), and onward links to Park & Ride are to be improved to support the redeveloped Beehive Centre and to act as infrastructure improvements available for the wider community. A more pleasant walking/cycling environment will be created, encouraging more people to use sustainable transport modes in favour of the private car.

The Site secures new links to support and integrate with the Chisholm Trail including fully LTN1/20 compliant routes through the Site. The Greater Cambridge Partnership has confirmed that progress is being made for delivering phase 2 of the Chisholm Trail; the on-site proposals provide a valuable means of connection to the existing and future elements of the Trail to support the city-wide cycle infrastructure. Each of the existing access points are to be

enhanced to significantly improve access on foot or cycle. The main access via Coldham's Lane will still cater for vehicles but provide much greater facilities for vulnerable and sustainable modes whilst reducing the current impression of Coldham's Lane being a barrier to permeability. The access via York Street, Sleaford Street and St Matthews Gardens will remain walking/cycle only, but with vastly improved experience and visibility for users.

Walking & Cycling measures have been identified along four broad corridors between the Site and:

- Coldham's Lane / Brooks Road Sainsburys.
- Cambridge Station.
- Riverside / Newmarket Road.
- City Centre / East Road.

Just these four corridor improvements amount to in excess of 30 interventions to improve provision for sustainable travel modes. These are set out in the accompanying Transport Assessment.

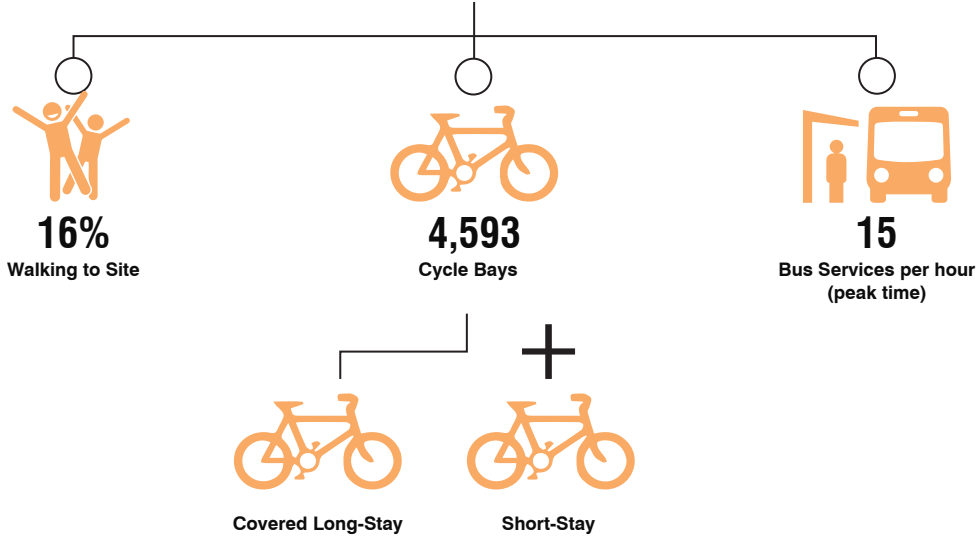
These are focused on removing or improving barriers to movement, including pinch points, blockages, under-provision along key routes and streamlining movement corridors. This includes measures between the Site and Newmarket Road.

The off-site proposals are being reviewed positively by the Highway Authority, and a suite of measures will be agreed as part of the S106 legal agreement. Furthermore, contributions will be made towards the authorities' planned improvements along Newmarket Road as part of the Eastern Corridor/Access improvements.

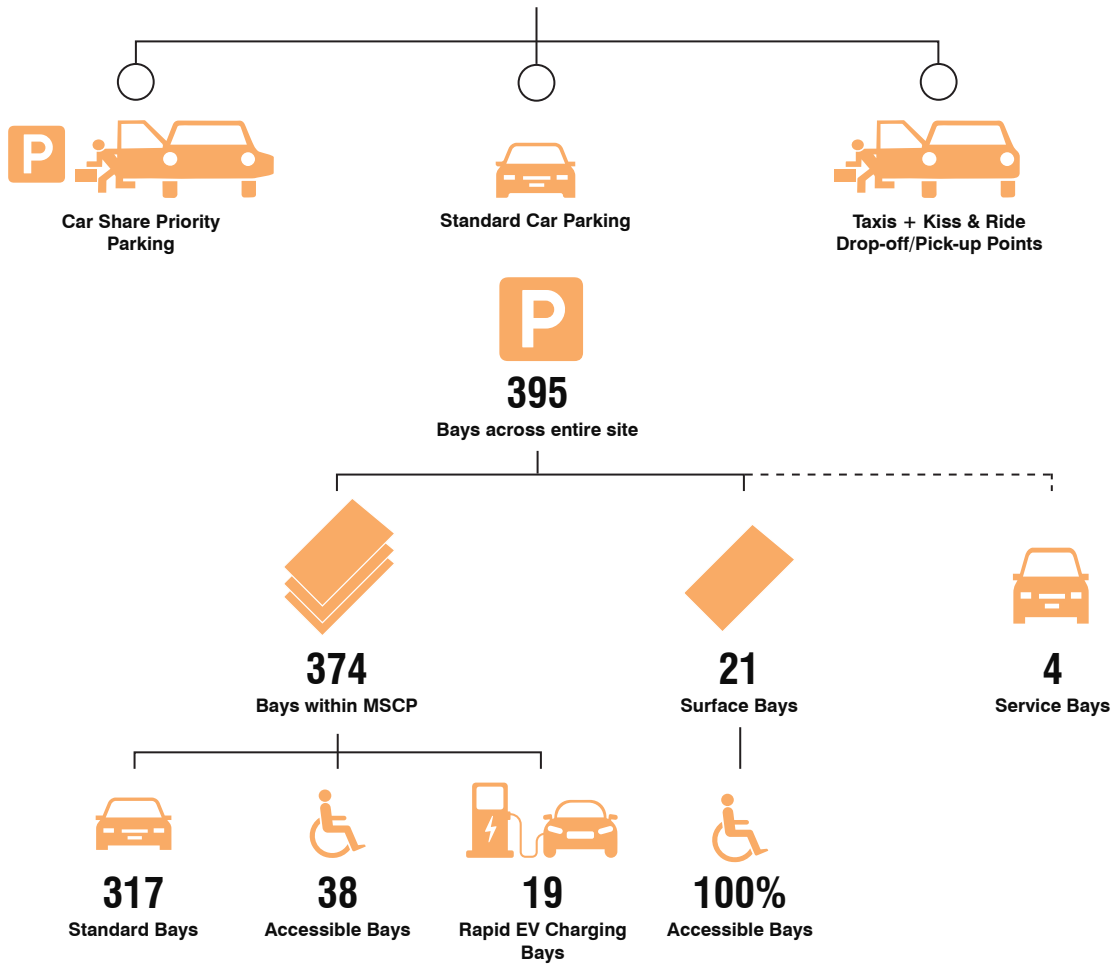
Delivered by: All Phases

Secured by: Transport Assessment, Travel Plan, Plans, Planning Condition, S106 (triggers to be agreed) S278

WALKING, CYCLING AND PUBLIC TRANSPORTATION



ALTERNATIVE MOBILITY



7.0 Environmental Benefits

7.1 Introduction

Our plans will make the site a greener, cleaner and a more sustainable place. We have set ambitious, achievable, targets - contributing to the City's response to the climate emergency.

Our commitment is to champion environmental sustainability by adopting a 'five capitals' approach that covers wide ranging issues including water use, waste reduction and whole life carbon.

The scheme will design for performance and not compliance, exceeding current sustainability standards by maximising use of an "all electric" strategy and sustainable water management systems. Whilst putting people at the heart of the sustainability strategy, providing excellent internal environments and thriving open spaces.

Outstanding

Minimum BREEAM rating targeted for all office buildings

All Electric

All building heating, cooling and hot water powered by electricity

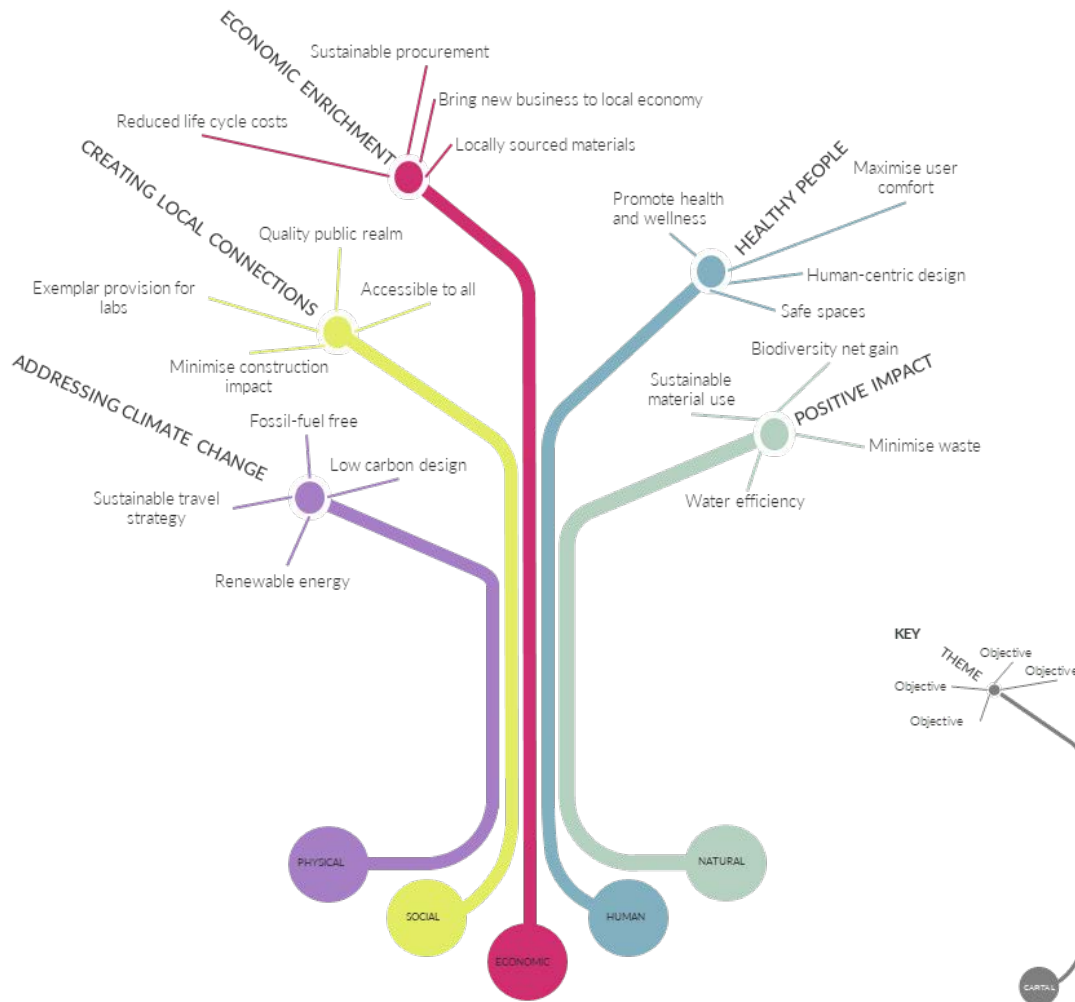
Fabric First

High performance buildings to reduce energy use

5+1 Water Credits

Buildings will achieve a full 5 BREEAM credits for water use including an additional Exemplary Performance Credit

The Five Capitals Framework



PHYSICAL	SOCIAL	ECONOMIC	HUMAN	NATURAL
Building the future	Connecting people	New opportunities	Healthy people	Positive impact
<p>A future looking, flexible energy strategy benefiting from ongoing decarbonisation.</p> <p>Considering all potential emissions – from construction to operation.</p> <p>Public realm that encourages travel on foot and by bicycle.</p> <p>Pedestrian and cycle access with facilities</p>	<p>Provide places for building users and wider community all year round including weekends.</p> <p>Create a public realm that is accessible, inclusive and inviting whilst considering safety and security of the users.</p> <p>Provide adaptable spaces that can respond to the social needs of the area.</p> <p>Create exemplar and competitive provision for the research and development sector.</p>	<p>Support the local economy with opportunities for local people and businesses to become stakeholders.</p> <p>Promote education and employment through skills development and career support.</p> <p>Apply circular economy principles to the construction and operation of the development.</p>	<p>Have a human centric design.</p> <p>Support high levels of mental and physical wellbeing.</p> <p>Integrate relaxation and interaction.</p> <p>Design the development to be air quality positive.</p> <p>Use biophilic design to elevate the sense of wellbeing and provide a link with nature.</p>	<p>Champion low waste solutions.</p> <p>Value natural resources.</p> <p>Enhance biodiversity and ecological value.</p> <p>Seek opportunities to reduce demand on resources such as materials and water.</p> <p>Invest in innovative solutions to environmental challenges.</p>

7.0 Environmental Benefits

7.2 A Sustainable Development and Buildings

Main Benefits

7.1.1 A Sustainable Development

The site is previously developed land (PDL) in a sustainable location in the heart of the city. The Development Proposals represent a more efficient use of land, being a precious commodity, while forming a development of the highest quality that will create significant beneficial impacts across the three objectives of sustainable development: environmental, social and economic.

The site location for the Proposed Development provides an opportunity to drive down carbon associated with travel as it is within easy access of key transport interchanges, which will be bolstered by improvements to the walking and cycling network. This will be further enhanced with a significantly improved public transport service, including direct access to the development by bus.

A positive, transformative reimagining of the site in a sustainable location is supported by national planning policy, adopted Local Plan policy and by the emerging Joint Local Plan and is a matter of significant benefit.

Delivered by: All phases
Secured by: Design Code, Parameter Plans, ES, TA, Planning Condition, S106 (triggers to be agreed)

7.1.2 A Strategy to Achieve Holistic Sustainability Targets

The site has and will continue to champion sustainability in all forms through adopting a 'five capitals' approach covering physical, social, economic, human, and natural elements of the design. These principles are embedded into the design and development proposals and will be achieved by exceeding the standards noted below.

Construction

Embodied carbon (the carbon associated with the construction materials) contributes a significant portion of a building's carbon footprint and so optimisation of material usage will drive this down, leading to a lower carbon development.

1. A target is included for embodied carbon to be less than 600kgCO₂/m² for office buildings and 750 kgCO₂/m² for labs to ensure betterment of the LETI 2020 Design Target.
2. Reducing waste throughout the construction process – diverting waste from landfill and re-using materials where possible and at end of life – a monitored and reported approach, including completing assessments to assess ease of disassembly
Both elements will accord with the Material 06 and Waste 01 and Waste 06 BREEAM Credits methodologies.
3. All contracts with suppliers will include for the Considerate Constructor Scheme, or a similar style programme, to minimise construction impact.
4. The development will adopt a strict sustainable sourcing strategy for materials used in line with industry best practice, which will be monitored and reported.
5. The sustainability strategy and benchmarks will be included within the construction procurement process.

Energy:

Operational energy drives the carbon emissions once the building has been built. The proposal optimises systems to improve building performance and in turn drive down the overall energy use arising from the site.

1. Achieve BREEAM Outstanding shell and core certification for offices – over 85% of the BREEAM criteria will be achieved along with meeting or exceeding targets relating to project management, energy, water usage, materials used and waste management.
2. Maximise photovoltaic panels across the roof areas to generate renewable energy for the site.
3. Detailed Prediction of Operational Energy calculations for how the buildings will perform at base build with targets set against the RIBA Climate Challenge 2030 and LETI targets.

Air Quality

The development will adopt air quality requirements in line with the RIBA Climate Challenge 2030. The development will not use fossil fuel as an energy source, and vehicle movements will be much lower than existing, improving local air quality.

Water

Water consumption is key to a successful development. All five Wat 01 credits of BREEAM plus the additional exemplary credit are planned for the development to meet the highest standards for limiting water usage– this means that the development water usage is significantly below a baseline model (65% minimum betterment) and rainwater harvesting will be incorporated to further mitigate high water usage intensity. This will exceed Cambridge City Council requirements.

Delivered by: All phases
Secured by: Design Code, Parameter Plans, ES, TA, Planning Condition, S106 (triggers to be agreed)



Cambridge minimum standard in line with BREEAM 'Excellent' rating

7.0 Environmental Benefits

7.2 A Sustainable Development and Buildings

Supporting Details

High Performing BREEAM Rating for All Workplaces

The proposed development has targeted the highest standard of certification under BREEAM. This is a widely adopted national certification scheme that looks at holistic building design and provides a scale for the sustainable credentials of a development to be measured against. Targeting a greater proportion of the credits within this means that a more rigorous design and build process is being undertaken.

All office buildings will be high performing, achieving a minimum BREEAM score of 85%, equivalent to 'Outstanding', being the highest available level of certification.

The remaining buildings will all achieve a minimum BREEAM certification of Excellent, with a push-target to achieve Outstanding. The ability to achieve Outstanding on these remaining buildings is currently limited only by Energy Consumption, which is particularly challenging for Wet Lab with office buildings.

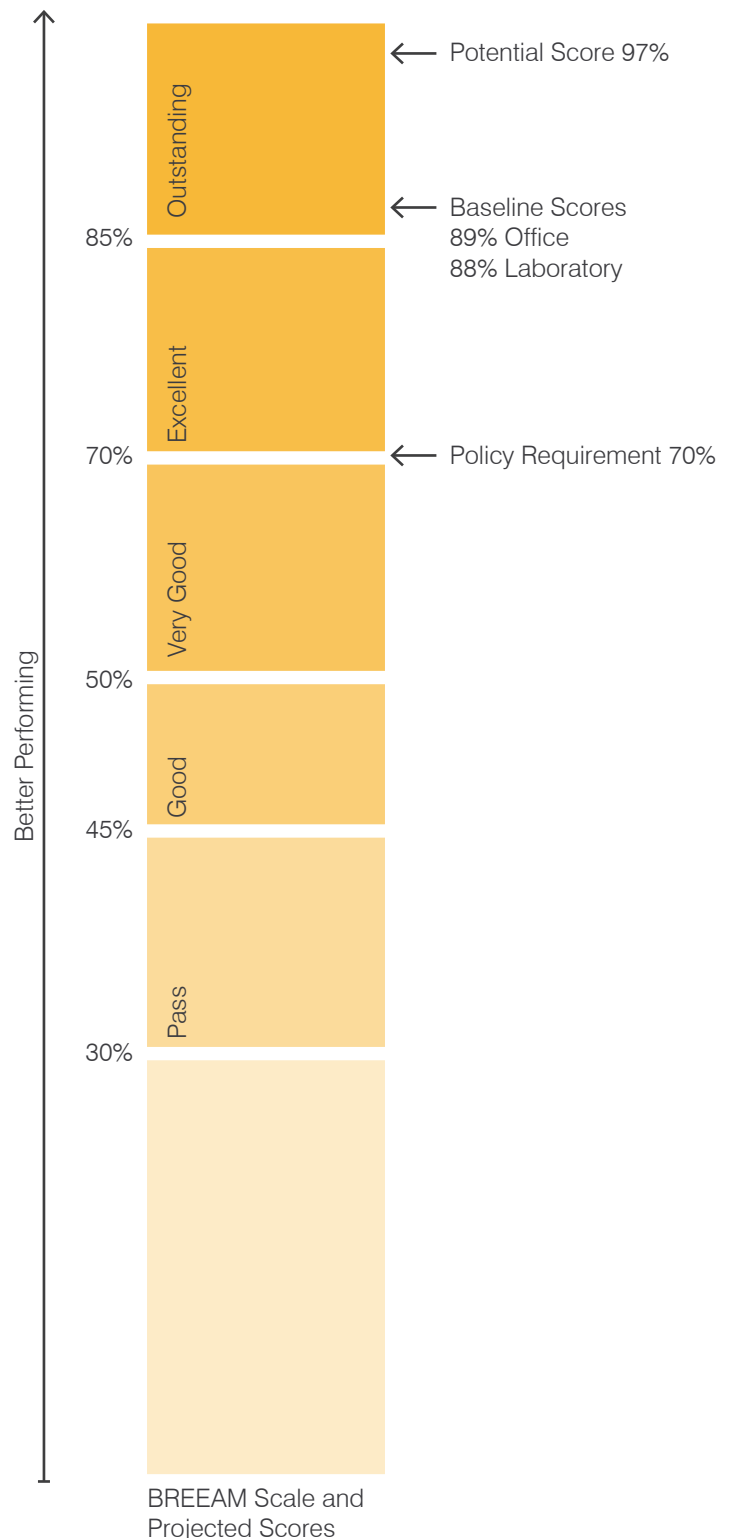
At the time of writing only four schemes in Cambridge are certified as "Outstanding" at design stage with only one final certificate awarded; the Proposed Development will comprise exceptionally high performing buildings.

Secured by: Sustainability Strategy, BREEAM Pre-assessment, Planning Condition

A Route to Achieve Buildings with Low Embodied Carbon

The development has proposed targets for embodied carbon in line with the RIBA Climate Challenge 2030, meaning that the target will be aligned to achieve best practice guidance.

Embodied carbon (carbon contained in the materials used, transport of materials, manufacture, maintenance, repair and replacement of materials and services along the deconstruction and disposal) has come to the forefront in carbon-reporting due to its contribution to the global emissions of the



construction sector of the scheme will be targeting an upfront embodied carbon target of less than 600kg/CO₂e/m² for base build office buildings as a baseline target, but with a stretch target of 500kg/CO₂e/m². To account for the increased demand on building services in lab spaces, these will be designed to an upfront carbon target of 750kg/CO₂e/m² in line with the RIBA Climate Challenge 2030.

An overall strategy for embodied carbon is set within the outline application. This will be reviewed at the detailed design stage for each new building when consideration can be given to the most suitable construction materials in relation to the overall design and the climate for procurement at that time. The ambition set within the defined strategy will be secured through planning condition.

Secured by: Sustainability Strategy, BREEAM Pre-assessment, Energy Strategy, Planning Condition

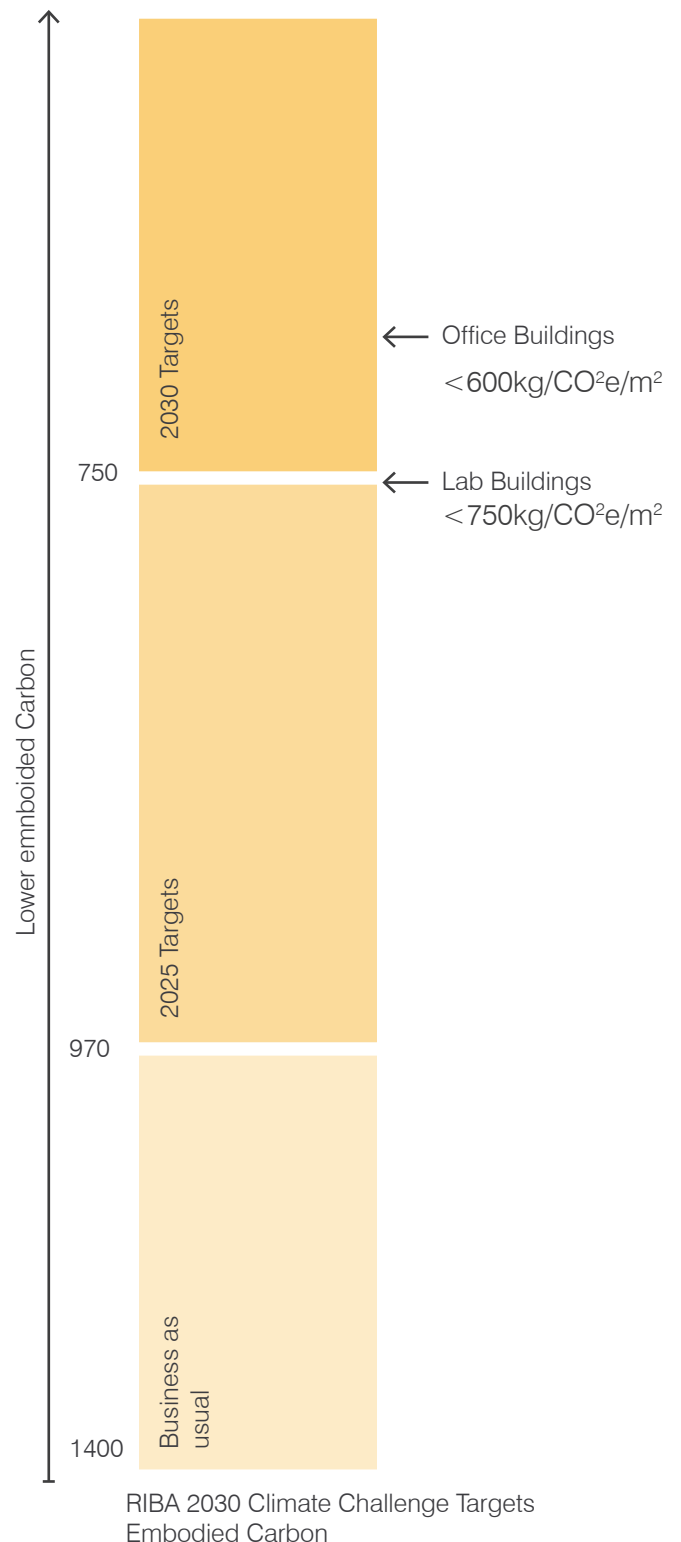
Low Operational Carbon Through an All-Electric Scheme

The development will provide a fully electric scheme. As the grid decarbonises as more renewable energy generation is connected, the associated carbon emissions will reduce. This means that the development will also follow the same decarbonisation trajectory.

Renewable technologies will be included from the outset and will mark a significant step forward from the current site operation and towards Cambridge moving to a net-zero carbon community. EV charging will be accommodated providing the benefit for a lower carbon private transportation future.

A new primary substation will be located on the site which will provide an infrastructure benefit to the surrounding area with electrical capacity. For Cambridge to move to being a net-zero carbon community it needs to provide for some new building stock that can operate to the highest standards and directly support the wider ambition to be net zero.

Secured by: Sustainability Strategy, Energy Strategy, Planning Condition



7.0 Environmental Benefits

7.2 A Sustainable Development and Buildings

Supporting Details

Low Whole Life Carbon and Beyond

Whole Life Carbon is an all-encompassing term that covers the embodied, and Operational carbon (carbon emitted from energy use, water use and other processes) of the development. This can be taken further through using circular economy principles which looks beyond the lifecycle of the building.

The development commits to Whole Life Carbon assessments in accordance with circular economy principles to ensure the right materials are chosen for the longevity of the building lifespan along with re-using materials from demolition where possible. This would be undertaken in coordination of embodied carbon targets.

Secured by: Sustainability Strategy, Planning Condition

Passive Design for the Future Operation and Thermal Comfort

To achieve a thermally comfortable indoor condition a cooling hierarchy has been followed, but driven by the approach to minimise the active requirement of cooling; such that passive design measures such as glazing ratios, shading and glazing performance will be incorporated. This will help drive the operational energy use down.

Thermal comfort studies will be completed at detailed design stage to ensure that the operational conditions are acceptable for future weather scenarios. Demonstrating compliance in these assessments will reduce the likelihood of material alteration or system retrofit and so limit future material consumption and reduce long term embodied carbon.

Secured by: Sustainability Strategy, BREEAM Pre-assessment, Energy Strategy, Planning Condition

Future Proofing Operation for Climate Change

The Prediction of Operational Energy will be carried out for the detailed design stage with a target of 55 kWh/m²/yr for the base build. This is in line with industry best practice for 2030 targets for RIBA Climate Challenge for base build Offices. Current best practice is for circa 90kWh/m²/yr and reaching the 55 kWh/m²/yr will be a significant achievement.

The development will provide space for future plant to give flexibility to respond to changing climate, thus increasing the adaptability and longevity of the buildings. The operational strategy includes for review for how the buildings could perform against the emerging Cambridge Local Plan which provides emerging energy usage targets. The designs will include for a Waste 05 Adaptation to Climate Change and Waste 06 Design for disassembly and adaptability strategy that will be implemented as the design for each unit progresses.

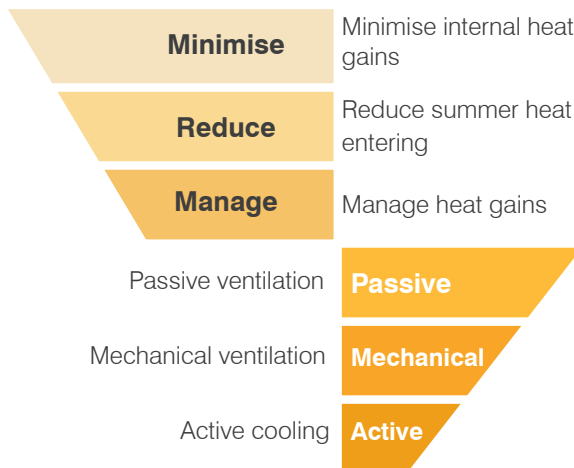
Secured by: Sustainability Strategy, Energy Strategy, Planning Condition




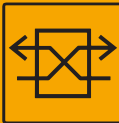




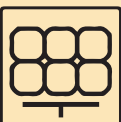
Independent Critical Review to Enhance Sustainable Offer

The development receives third-party critical review by Professor French from the Cambridge Institute for Sustainability Leadership, who has a mandate to push the team to explore different lines of thinking and so challenging the best practice market leading standards. This has enabled the proposals to further minimise embodied carbon in the development and only then to offset any residual carbon and so enable the development to achieve net zero carbon at completion.

The critical review includes for topics such as: Absolute Zero: operational energy and carbon, life cycle analysis, Architectural and M&E design ethos, Digital Twin methodology, Circular Economy, Sustainability Accreditation and Standards, Health and Wellbeing.

Secured by: Sustainability Strategy, Planning Condition



Be Lean	 Fabric performance Reducing space heating demand through improved fabric efficiency.	 Glazing/Daylight Balance daylight comfort and passive heating.	 Overheating Overheating risk analysis undertaken to ensure occupant comfort.
	 Heat Recovery Mechanical ventilation with heat recovery (MVHR).	 LED High efficiency lighting throughout.	 Metering & Controls Building management, PIR, daylight link, zonal control, etc.
	 All Electric A scheme powered wholly for electricity including heating, cooling and hot water.	Be Green  Air source heat pump (ASHP) Able to provide heating and cooling demand.	 Photovoltaic (PV) Mounted on available roof scape to generate renewable electricity.

Main Benefits

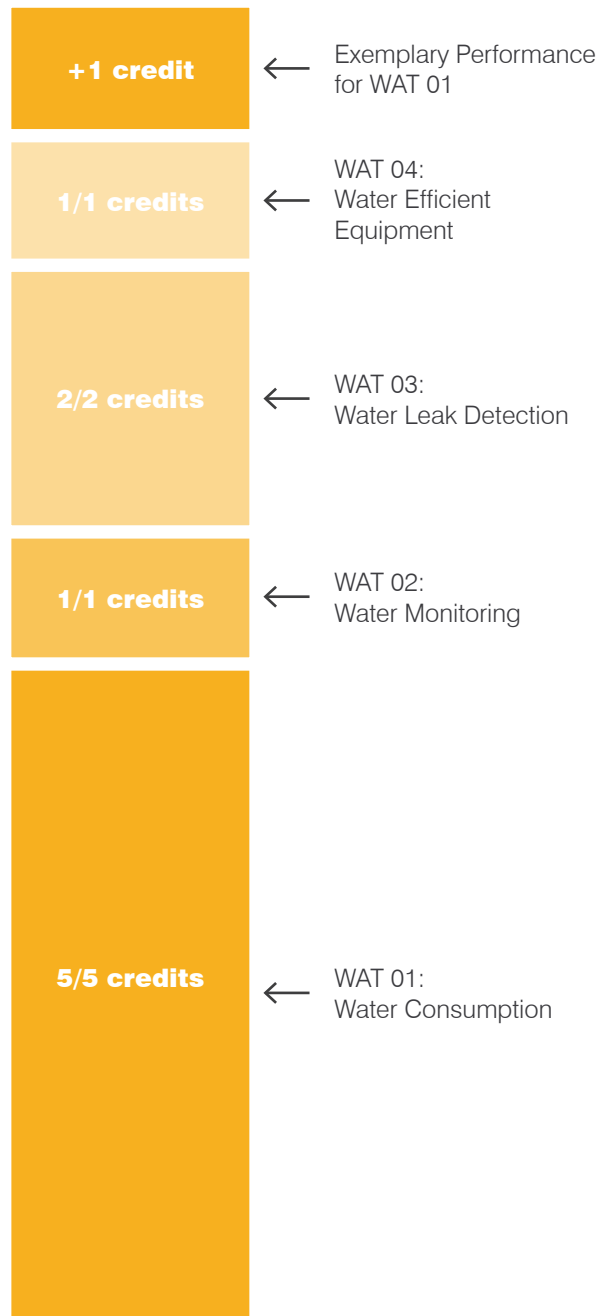
7.3.1 Limiting Water Use

The nationally recognised BREEAM accreditation is the leading method by which to assess the quality of a new development and its efforts to address water usage. For the Proposed Development the maximum sustainable water use BREEAM credits will be achieved, including a push target to achieve the exemplary performance credit associated with water recycling, which exceeds the maximum numerical 05 Water Credits exceeding the basic requirement.

Water consumption will be reduced with the lowest flow outlets recommended by BREEAM and rainwater harvesting from all main block roofs. A significant commitment to harvested rainwater is set into the scheme to provide for WC flushing.

Water use will be monitored with meters on all incoming mains and tenant zones. Water wastage will be mitigated with leak detection and shut-off valves within buildings and externally.

The water usage strategy will be market-leading and exceed all recognised standards.



Water Consumption Credits

Supporting Details

Surface Water Management

A robust surface water management scheme is proposed which will attenuate and harvest rainwater, which can be used for landscape irrigation.

Secured by: Drainage Strategy, Planning Condition

Delivered by: All phases

Secured by: Planning Condition



