

TRUMPINGTON SOUTH

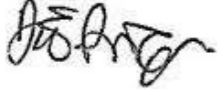
SUSTAINABILITY WORKSHOP SUMMARY REPORT



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Section 1 – Executive Summary

This report contains the outcomes of a workshop to discuss the main opportunities, constraints, principles and level of ambition related to sustainability for the Trumpington South masterplan.

The Vision for Trumpington South is to build upon the success of Trumpington Meadows to deliver an inclusive, balanced and active community. Residents will live in zero carbon homes surrounded by a green network of pedestrian friendly streets and pathways. This place will be rich in wildlife and biodiversity, with direct access to new parkland and a range of community facilities including a new primary school. Extremely well connected to major employment hubs, people will be encouraged to make low-carbon and active travel choices. Trumpington South can be delivered early to help Greater Cambridge meet its climate, biodiversity, equality and place-making priorities. It is intended to support the growing health and biotechnology sectors in the area and embody the sustainability and wellness goals championed by the Greater Cambridge local authorities and site owners Grosvenor and USS.

The promotion and development timeline from the Trumpington South project coincide with numerous policy deadlines relating to climate planning and urban development. Notably, the Future Homes Standard comes into force from 2025 and will require average homes to have 75-80% reductions in regulated CO₂. In addition, between 2030-2050 many national and corporate net zero targets will be reached. The Greater Cambridge Local Plan, which sets out regional climate commitments and priorities, will be adopted in 2023, with the Greater Cambridge zero carbon target set for 2050.

In light of these challenges, a sustainability workshop led by Buro Happold, was designed to harness local and innovative sustainability expertise. A structured series of tasks targeted the following key areas:

- Understanding local constraints and opportunities
- Gauging sustainability ambition and targets
- Highlighting inclusivity needs and requirements
- Establishing the high-level vision and supporting principles

To ensure the resulting strategic recommendations were targeted and relevant, prompts and exercises were aligned with key themes in the Greater Cambridge Local Plan and Grosvenor sustainable development priorities. The participants and grouping were hand-selected by Grosvenor to draw together expert groups of built environment and wildlife professionals, and representatives from the local area.

The workshop outcomes present an ambitious vision for Trumpington South. Numerous innovative principles and potential commitments were also suggested, aligning clearly with the key themes of the Greater Cambridge Local Plan.



Theme 1: Responding to Climate Change

The site should be a low carbon, resilient space that is low impact, where the clustered positioning of the houses is utilised to integrate sustainable design strategies. Relevant commitments might include:

- Houses built with passive design principles, rooftop renewables and smart technologies
- Strategies to achieve “net-zero”, with carbon, embodied carbon and operational carbon over the lifetime considered
- Use of connected systems like blue/grey infrastructure and energy grids – including communal rainwater harvesting balanced with SUDs.

Theme 2: Increasing biodiversity and green space

Trumpington South benefits from its position near natural and agricultural landscapes. The site should connect with these areas and contribute to a net biodiversity gain. Initiatives include:

- A baseline biodiversity survey carried out, followed by lifelong monitoring
- On-site green spaces, edible landscapes and trails or connections to off-site natural parks
- Connections to green corridors and regional recovery networks (off-site)
- Design and operational assessments of daylighting, noise and air quality
- Environmentally sensitive external spaces (e.g. limiting light pollution, noise pollution and air pollution) as well as on-site biodiversity maximised.

Theme 3: Promoting wellbeing and equality

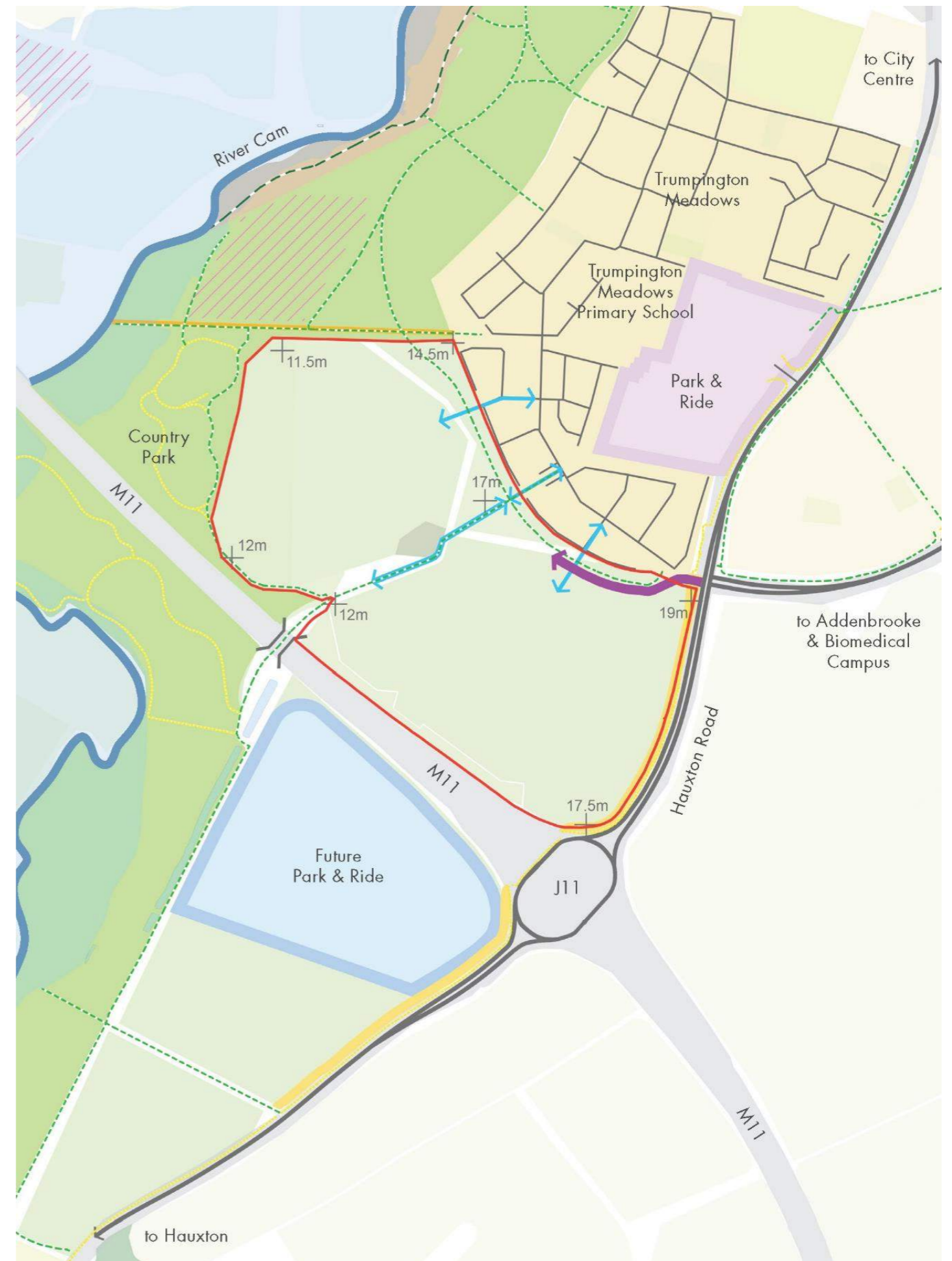
The site should develop an inclusive sense of identity, with support for the diverse demographic that it anticipates hosting, particularly those who are mobility impaired and vulnerable. This might be facilitated by:

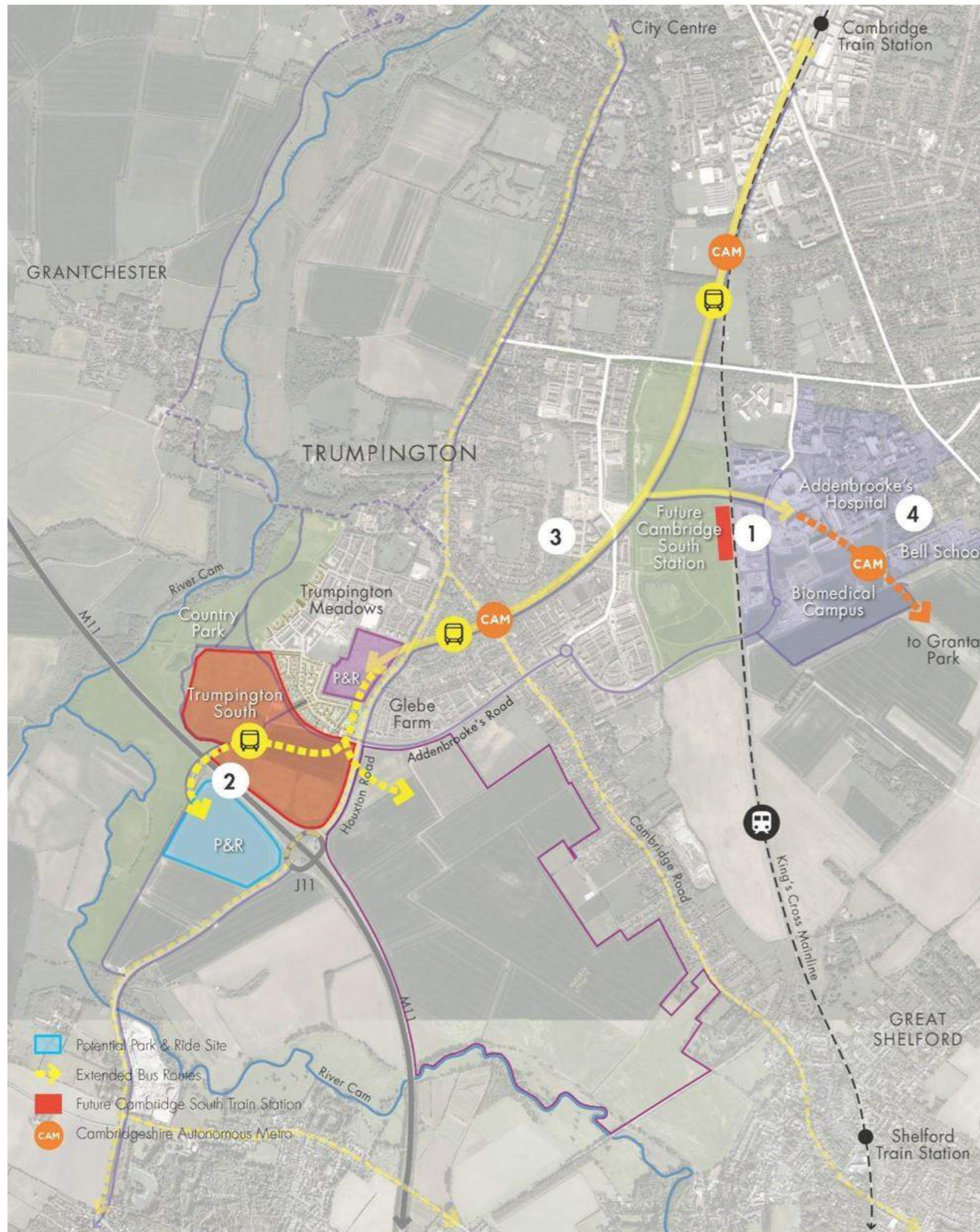
- Service and facility sharing with the neighbouring Trumpington Meadows
- Accessible routes to social and community centres in nearby Trumpington
- Inclusive outdoor spaces, including shaded and sheltered areas, no-car zones, sensory trails and disabled access routes
- Local pollution cut by electrifying the last mile of transport
- Internal environment quality measures like daylighting control, acoustics optimisation and active cooling, with smart connected controls.

Theme 4: Delivering quality places

The site will draw on its location as a gateway to Cambridge City and the surrounding natural and heritage landscape. It will have a strong sense of community and be a ‘connected’ place. Possible commitments to achieve these goals include:

- A townscape with a sense of identity and purpose; a destination in its own right
- Inclusive on-site shared facilities, such as allotments, fitness areas and communal dining
- Car-free zones, cycling, walking and electrified vehicles accommodated, allowing residents to remain responsive to a national switch to low-carbon and electrified travel
- Links with local start-ups, landowners and food growing projects
- Residents invited to engage with on-site biodiversity, food-growing and biodiversity monitoring initiatives
- Use of online technologies like apps and social media platforms to increase uptake of inclusivity measures.





Section 2 – Introduction

Overview

A workshop was facilitated by Buro Happold on the 29th November 2019 at Buro Happold's Newman Street Office, London. Attendees were from *Aecom, BPHA, Buro Happold, Camargue, Cambridge CleanTech, David Morley Architects, Deloitte, Grosvenor, PBA, Redrow Homes, Savills, Telford Homes, Terence O'Rourke, USS, Vectos, Wildlife Trust and WSP.*

Workshop Purpose

The purpose of the workshop was to identify the main opportunities, constraints, principles and level of ambition for the Trumpington South masterplan to consider when developing the sustainability strategy for the site.

By drawing together local experts and built environment professionals, Buro Happold and Grosvenor intended to draw out ideas and principles for a relevant, realistic sustainability vision for the area. Specific workshop tasks were presented, and attendees were asked to record ideas and thoughts from their discussions, with attention to specific sustainability themes, and often against detailed scenario prompts.

By structuring the workshops around key questions relating to local opportunities, strategic appetite and accessibility requirements, the outcomes present a detailed, inclusive bank of ideas. Prompts and scenarios were also built in alignment with key themes in sustainability commitments made by Grosvenor and the Greater Cambridge Local Authorities (Cambridge City Council and the South Cambridge District Council).

Report

This document serves as a summary of this session and is a technical addendum to the updated project vision document. Outcomes are presented as summary information from notes across all groups.

Sustainable Development Framework

Following on from the workshop outcomes, core principles for a sustainable development framework for the site has been prepared. The framework highlights possible design commitments for the scheme based on the level of ambition expressed in the workshop. It is anticipated that as the Trumpington South project develops, the sustainable development outcomes will be further reshaped and defined.

Policy and Local Context

The site is expected to reach completion in 2026-27, by which point, and over its lifetime, numerous key policy and sector milestones will be reached, as illustrated below:

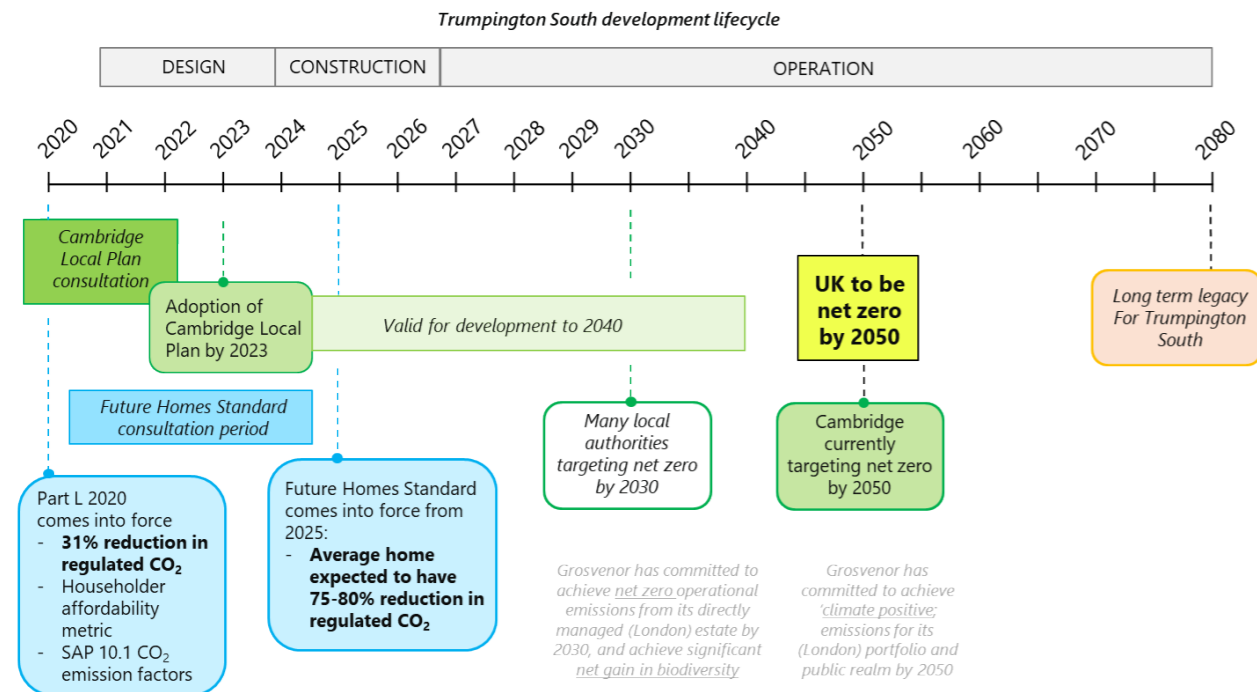


Figure 2.1: Development timeline

Alongside a changing policy landscape relating to air pollution and environmental protection (e.g. the National Clean Air Strategy 2019), several pieces of UK legislation on the urban environment will be released in the next few years. These include the Building Regulations Part L (2020), which is likely to focus on regulated CO₂ reductions and new metrics for primary energy and affordability, the Cambridge District Council Sustainable Design and Construction Supplementary Planning Document (2020) and the 2025 Future Homes Standard – where average homes will be expected to have 75-80% fewer emissions than Part L 2013.

Furthermore, in 2030 national and corporate zero carbon commitments should start being met. The Greater Cambridge area is aiming for a 2050 net zero target, in alignment with national goals.

In light of this, the developing Greater Cambridge Local Plan (GCLP), due for publication in 2023, has a strong focus on sustainability, split into four main themes of interest for housing development. A key focus of this workshop was to discuss opportunities and ideas for the Trumpington South against this horizon. Attendees received a presentation on these topics from Buro Happold at the start of the day, alongside a briefing document to consult during tasks.

Theme 1: Responding to climate change – Greater Cambridge is set to see an increase in rainfall and warm summers, as well as threats to water supply as demand increases. The GCLP emphasises

the need for retrofitting and sustainable building strategies, as well as renewable energy and low-carbon travel options.

Theme 2: Increasing biodiversity and green space – Greater Cambridge has over 650 priority and protected species, and 11.1% tree cover. However, it suffers from urbanisation and low biodiversity in agricultural land. As such the GCLP is looking to grow the regional green space network and improve interfaces between natural and urban infrastructure.

Theme 3: Promoting wellbeing and equality – according for Centre for Cities,¹ Cambridge is the most unequal city in the UK, with low average life expectancies and social mobility levels in deprived areas, and an aging population. The GCLP wants to expand public spaces, improve access to local services, and involve diverse communities in planning and design.

Theme 4: Delivering quality spaces – the area is renowned for its iconic heritage and natural landscapes (including the Fens and woodland regions). The GCLP wishes to promote characterful developments and local distinctiveness, while balancing growth demands with heritage protection.

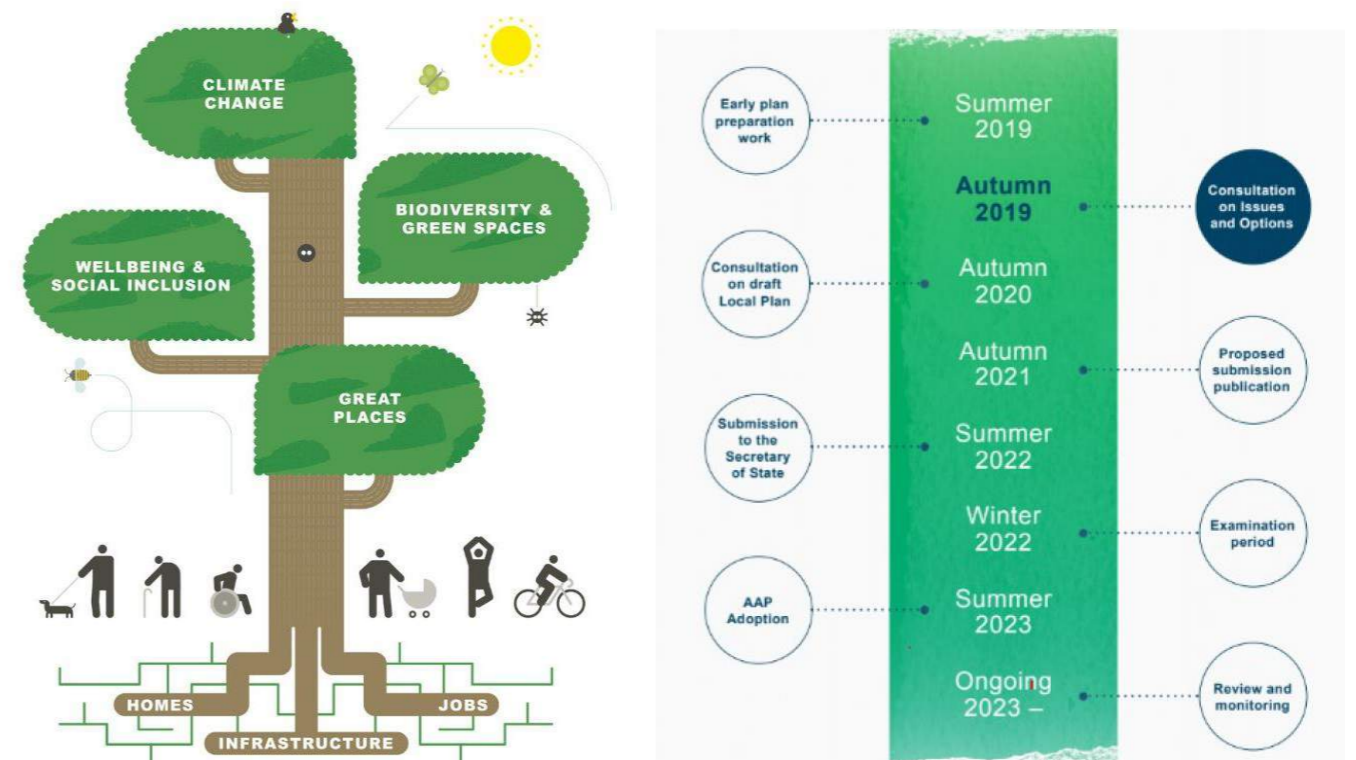


Figure 2.2: Greater Cambridge Local Plan 'big themes' and consultation timeline

¹ <https://www.centreforcities.org/city/cambridge/>

Section 3 – Workshop Outline & Objectives

Structure

The workshop opened with presentations by Grosvenor on the project background and a briefing by Buro Happold on key sustainability themes and policies for the region and industry.

Teams were pre-allocated by Grosvenor and Buro Happold. These were designed to ensure a spread of expertise within each group, and to ensure that those with theme-specific interests were attached to relevant teams.

Each group was given a key theme of the Greater Cambridge Local Plan (Section 3) and worked together throughout the day. Participants were requested to respond to all tasks with a particular focus on their theme, with any prompts and scenarios in the handouts tailored for each group accordingly. The use of these themes was a prompt to encourage diverse conversations, and to ensure that outcomes touched on all areas of the Greater Cambridge Local Plan.

Workshop Objectives

This report is structured around the flow of the workshop itself (Figure 3.1). The objective of each task was as follows:

Task 1 – Opportunities & Constraints

Harness expert knowledge of local opportunities and potential barriers, highlighting possible strategic and design options for the masterplan. This session was also intended to give attendees familiarity with the site and their theme.

Task 2 – Strategy Development

Establish appetite for different sustainability approaches, and preliminary target suggestions. Teams were also requested to record potential strategic approaches to achieving targets that would need to be integrated into the development timeline.

Task 3 – Day in the life

Highlight user needs and requirements, particularly marginalised and disengaged groups, or residents with specific access requirements. Having established principles and potential strategies in the previous tasks, this workshop encouraged attendees to look at their suggestions from a variety of perspectives.

Task 4 – Vision Summation

Compile thinking from all previous tasks to present a vision for Trumpington South in 2030. Teams provided core principles to achieve the vision, indicating the priority with which they would present each principle.

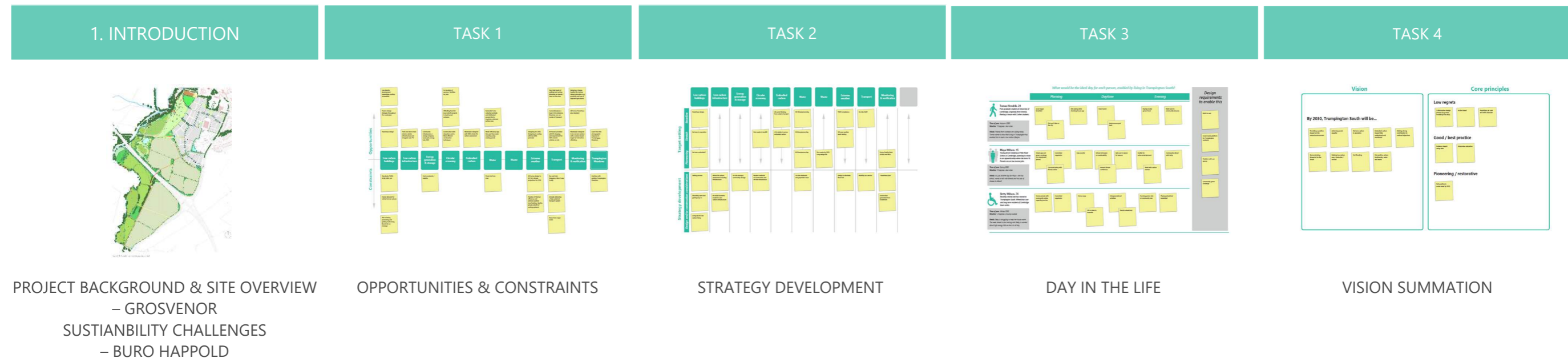


Figure 3.1: Workshop process

Section 4 – Summary and Core Principles for a Trumpington South Sustainable Development Framework

Sustainability challenges

Greater Cambridge Local councils have declared a twin climate and biodiversity crisis, recognising the need to accelerate change across government, industry and the general public. Trumpington South fully embraces this position and aims to provide a 'best in class' masterplan recognised as a global case study for sustainability.

In practice, this means Trumpington South will need to be net zero carbon in operation, achieve a net positive biodiversity gain, be climate resilient (e.g. to water stress, flooding, overheating), minimise car usage, as well as be future proofed to rising energy costs and energy security needs.

The scheme will also need to be designed with people and quality in mind, promoting active, healthy lifestyles, affordable placemaking and place a large emphasis on protecting the landscape and local character.

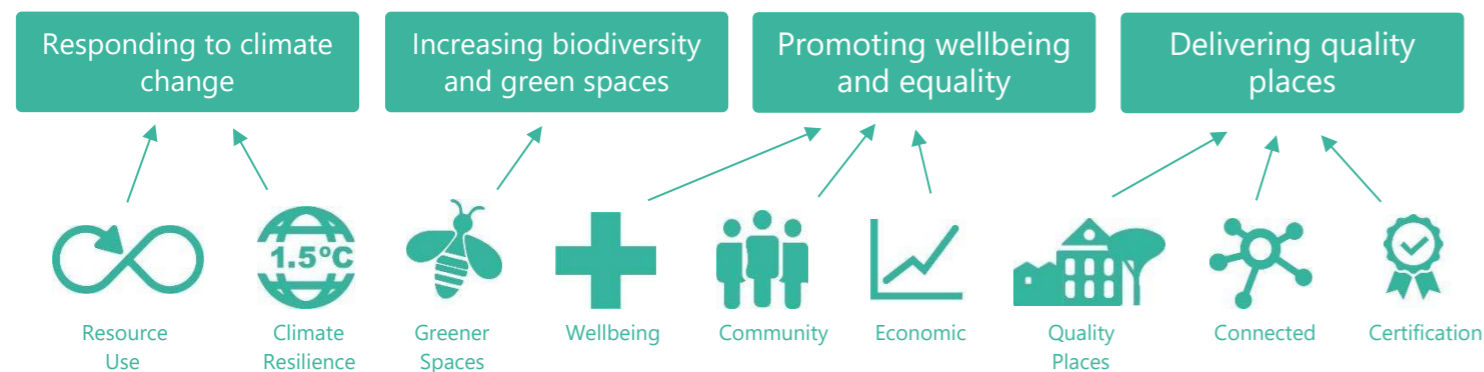
Sustainable Development Framework

To develop a holistic sustainability strategy for Trumpington South a workshop was held with over 30 stakeholders, including members of the design and development team and external subject experts.

The workshop and briefing prior centred around the 'big themes' from the Greater Cambridge Local Plan, as well as national and global sustainability challenges.

Activities included mapping out opportunities and constraints for the site, potential design strategies and targets, "day in the life" scenarios for resident profiles as well as overall vision statements and core principles.

The outcomes of the workshop have been developed to create nine core principles which will guide the Sustainable Development Framework for Trumpington South, aligned to the Grosvenor sustainability priority areas and Greater Cambridge Local Plan big themes.



Overall vision

"The most sustainable place to live in Greater Cambridgeshire"

"A climate responsive masterplan supporting the current and future needs of society"

"A connected place to live with strong identity and levels of community engagement"

"A nationally and globally recognised case study for 'best in class' sustainability"

Core principles

The Sustainable Development Framework will be developed and refined over time to ensure Trumpington South is responsibly designed and constructed, whilst being a sustainable place to live and thrive for many decades to come. Core principles to guide the Sustainable Development Framework include:

Responding to climate change

1. Designing a substantially 'vehicle free' development, discouraging car usage and parking on-site
2. Deliver up to 750 net zero carbon homes in operation, with a commitment to reducing and reporting on the associated embodied carbon emissions in construction as defined by the UK Green Building Council*

Increasing biodiversity and green space

3. Achieve a 25%+ net biodiversity gain on-site, supporting species of local and national significance
4. Ample recreational and restorative green landscapes, readily accessible to all

Promoting wellbeing and equality

5. Community travel hub and public realm design supporting walkability and cycling provision
6. Design in line with WELL communities principles promoting physical and mental health benefits

Delivering quality places

7. Design code for all homes to create a strong sense of identity and preserve site heritage
8. Design in line with Home Quality Mark principles, ensuring a quality product for all residents
9. Feeding forward lessons learned from Trumpington Meadows to Trumpington South

* The UK Green Building Council (UKGBC) sets out definitions and principles around two approaches to net zero carbon, which are of equal importance:

- **Net Zero Carbon – Operational Energy:** "When the amount of carbon emissions associated with the building's operational energy on an annual basis is zero or negative. A net zero carbon building is highly energy efficient and powered from on-site and/or off-site renewable energy sources, with any remaining carbon balance offset."
- **Net Zero Carbon – Construction:** "When the amount of carbon emissions associated with a building's product and construction stages up to practical completion is zero or negative, through the use of offsets or the net export of on-site renewable energy."

These two emissions types will be quantified and reduced through the design and delivery of Trumpington South.