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Cherry Hinton North

Design Code

Project Partners

Client
Bellway Homes
Latimer Homes

Local Authority
Greater Cambridge Shared Planning Service

Architects
Pollard Thomas Edwards

Planning Consultant
Strutt & Parker

Public Relations
Connect PA

Landscape Architects
McGregor Coxall/Matt Lee

Ecology Consultant
BSC Ecology

Transport Consultant
Woods Hardwick

Environmental/Sustainability Consultant
Waterstone Design

Energy Consultant
Metropolitan Energy

Utilities Consultant
Utility Consult

Structural Engineer
Glanville

Acoustic Consultant
LF Acoustics

Archaeology
Cambridge Archaeological Unit

Geotechnical
BRD Environmental

Environmental Risk Assessment
Mott Macdonald

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Executive Summary

The Cherry Hinton North Design Code has been prepared to guide all aspects of future development at the Land North of Cherry Hinton.

The Design Code is built around the 10 Characteristics of a Well-Designed Place, which were identified in the 2020 National Design Guide. Characteristics cover topics of Character, Community and Climate, and each characteristic has been covered in its turn, with text and diagrams explaining what needs to be achieved.

Each part of the Code illustrates these individual characteristics being integrated within examples of streets and places. We have included the terms “Living Infrastructure”, “Living Communities” and “Stewardship” to show how good characteristics can and do work together and support each other.

This integrated approach to design lies at the heart of this strategic document. Specific outcomes are flexible, but we want buildings that relate to one another, public spaces that bring people together, space for nature throughout, and good stewardship. It is how these qualities are combined that will give the special sense of place that the Code expects.

Section A: Introduction and Background Information

Building character, local precedent, Cambridge

The purpose of this Design Code is to provide a benchmark for quality placemaking within the Land North of Cherry Hinton (LNCH) development. It brings together and co-ordinates objectives and strategic design principles for each of the main Masterplanning components to deliver a unified LNCH vision across all phases of the development. It is intended as a useful tool for all team members, project stakeholders and residents, in the process of designing, assessing, and approving subsequent reserved matters applications for the development.

The guidance has been prepared in collaboration with the Greater Cambridge Shared Planning Service and its principles take into account current planning policies. However, the Code is intended to complement these policies, not substitute for them. It should therefore be used in conjunction with other detailed guidance and policy documents. An appendix with links to useful supporting documents and further reading has been included at the back of the document.

Policy context and document structure
The Code is structured into four parts:

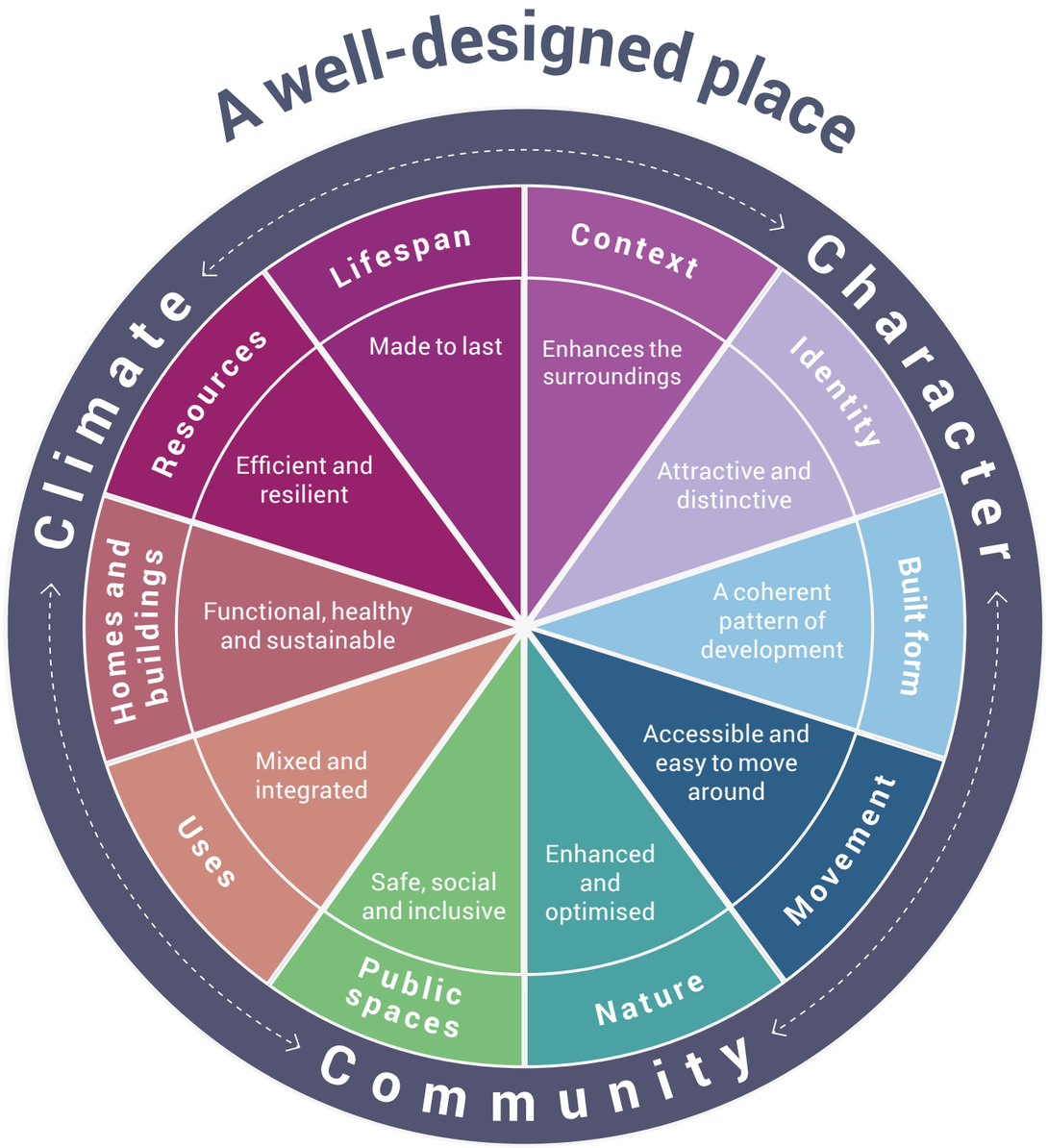
1. Introduction and Background Information
The content of the Design Code builds upon the principles contained within Cambridge's "four C's" of Community, Connectivity, Climate and Character. It has also been informed by local plan policies, including the Cambridge Local Plan (2018) Policy 13 Cambridge East, as well as the principles and detailed requirements established during the outline planning application and through the parameter plans.

Further detail on the planning background of the site is included within the planning background section of the Code.

2. Site-Wide Coding - the ten characteristics of a well designed place
Site-wide guidance for the Design Code has been set out into ten sections, corresponding to the Ten Characteristics of a Well-Designed Place, as described by the Department for Levelling Up, Housing and Communities (DLUHC) in the recently published National Model Design Code and National Design Guide. The ten characteristics also address the broad themes of climate, character, and community – while introducing what we believe are timely themes covering the careful use of resources, and planning for long-term maintenance.

3. Character Area guidance
The Character Area guidance illustrates how the site-wide principles should be applied within each character area, its intended look and feel, and any specific requirements that need to be delivered within that area.

4. Appendices
The appendices at the back of the document include useful links and a checklist of key requirements.



National Model Design Code: 10 Characteristics of a Well-Designed Place

Scope of the design code
The Design Code includes mandatory requirements, recommendations, and supporting illustrative design guidance related to the following key areas:

- Design of the public realm; including streets, play and green and blue infrastructure
- Design of buildings; including key principles for their form, appearance, and detailing
- Creation of Character Areas and a set of frontage characters, ensuring that the masterplan achieves a sense of unity without uniformity
- Technical design; including subjects such as utilities provision, waste and recycling and sustainable drainage
- Climate change and climate change resilience; including subjects such as microclimate, ventilation, and habitat creation
- Long-term care and management.

The Code **must** be referred to for all design decisions within the LNCH development. It is there to inspire good practice, sustainable design, and maintain project quality.

The Code **must** be applied at all stages of the development process, from concept design to planning and throughout construction.

The Code **should** help guide ongoing management once construction work is completed.

Must and should guidance
The sections of the Design Code follow a standard format. A bold introduction statement at the start of each section summarises the strategic outcome that must be delivered. Thereafter, is guidance with written principles, illustrations, and precedents, expanding the strategy in more detail.

Guidance within the Code contains two levels of compliance:

- Where compliance is a mandatory requirement, the word '**must**' is used
- Where compliance is recommended, the word '**should**' is used.

A completed Compliance Checklist and accompanying proving illustrations must be included as part of future Reserved Matters Applications and we suggest this is incorporated within the Design and Access Statement (DAS).

Where recommendations are NOT followed, this must be described. The alternative design proposals must be justified by their potential benefits or by the need to meet changing legislation, varying circumstances, or technical advancements. All deviations from the Code must show how they maintain the wider quality, sustainability, and placemaking, requirements of the Code.

Status of Images
All diagrams are mandatory unless otherwise stated.

Framework Diagrams
The framework diagrams included within the code must be followed, reflecting 2 levels of requirement:

1. The location and underlying geometry of all primary/ secondary infrastructure, including connections, spaces and key community uses shown within Framework Diagrams must be applied.

2. The tertiary spaces, routes and focal points within these diagrams are illustrative. The specific geometries and locations they show are not fixed, but the underlying principles of connections, places and focal points that they illustrate must be applied.

Illustrations and Precedents
The illustrations and precedents within the Code are, unless otherwise stated, indicative of what is required. While the principles they illustrate should be followed by the design, they should not be treated as fixed outcomes. The Code sets a quality baseline, but teams are invited to be innovative and show how they can deliver or exceed the quality, sustainability, and placemaking requirements of the Code.

Updating the Code
The life of a large masterplan development can be a long one, and technology, social needs, and other opportunities for further improvement frequently emerge over time. A good example of this may be future changing patterns of car ownership – allowing reduced parking and improved use of allocated space. Therefore, to reflect this, while the overarching design quality principles set out by the code must be retained, the detail of how this is delivered should not be treated as immutable.

With a collaborative approach and dialogue, the detail content of this document should be open to regular review over the life of the project, with any proposed changes taken to the Quality Review Panel as well as other consultees. At a minimum we suggest this review should be undertaken when the airport closes.

This flexibility is part of the robustness of this Code - ensuring that the Code stays relevant over the whole life of the development.

Planning background

Development plan
Both Cambridge City and South Cambridgeshire District Council adopted their current Local Plans in 2018.

In the Cambridge Local Plan (2018) Policy 13 Cambridge East, Land North of Cherry Hinton (R47) is allocated for approximately 780 dwellings during the plan period, along with adjoining land allocated in Policy SS/3 of the South Cambridgeshire Local Plan (2018) for approximately 420 dwellings. A combined total of 1,200 dwellings is allocated.

SPD framework
Further guidance on the LNCH is set out within the Supplementary Planning Document for the site, which was adopted in November 2018. This document is a material consideration on all applications on the site and it sets out design parameters for the site, which have been used to inform this SWDC. Among many principles, the SPD established the need for a strategic through-route for motor traffic through the development.

Reference should also be made to relevant sections of Greater Cambridge Sustainable Design and Construction SPD, Jan 2020. A links to this document is included within the further reading page at the back of the Code.

Cambridge East
In addition to the application site, other major developments have also been allocated in Cambridge East, as identified within Policy 13 of the Adopted Cambridge City Local Plan. This includes the Marleigh Development (previously the Wing), which is currently under construction to deliver 1,300 dwellings. Part of Cambridge Airport is also identified as Safeguarded Land for potential future development.

Emerging local plan
The Greater Cambridge Shared Planning Service are in the process of preparing a new Local Plan, which will cover both Cambridge City and South Cambridgeshire. In the Autumn of 2021 they consulted on their 'First Proposals', which includes the proposed allocation of Cambridge Airport for a residential led development. This plan is at an early stage and currently it cannot be given any significant material weight in planning terms, however the Design Code has been worded to provide some flexibility should the airport be developed in the future.

Outline application
In 2020 Greater Cambridge Shared Planning granted outline planning permission for the LNCH masterplan. This was prepared by Terence O'Rourke on behalf of Marshall Group Properties Limited and Endurance Estates.

The outline approval is for a sustainable extension to Cherry Hinton comprising:

- Up to 1,200 homes
- A mixed-use local centre including: a primary school, community facilities and commercial units
- A secondary school
- A network of well-connected public open spaces with integrated SuDS features, including: playing fields, allotments and children's play spaces
- A sustainable movement strategy including a reinforced cycle and public realm infrastructure across the entire site
- Connections and detailed junction designs for access to the site at three separate points
- Overarching parameter plans including land use,movement and access, landscape and green infrastructure, building heights, and urban form parameter
- A detailed Transport Assessment (TA) formed part of the outline. The TA iincluded the SPD principle of a 20mph through-route (ie no bus gate), S106 requirements, and the detailed consents for the 3 junctions.

The outline consent included a condition requiring the submission of a site-wide Design Code prior to or concurrent with the first Reserved Matters Application.

Parameter plans
A package of approved parameter plans have been developed. These define the spatial, use, height limits land movement parameters that designers must work within. The parameter plan requirements and limits have been used to inform this code and are intended to be delivered by it.

Section C: Appendicesr plans can be found within Section C: Appendices.

Community Engagement in developing the Code

The Code was developed in consultation with the local community. This process included online webinars, workshops, surveys and feedback forms, as well as in person events. The engagement focussed on code principles, tracking the creation of the document, and this allowed the Code to be updated to reflect the feedback we received.

Alongside this process, stakeholder presentations and Q&A discussions have included:

February 2022 – Cambridge East Community Forum
March 2022 – Cambridge Past, Present and Future Planning Committee
April 2022 – Teversham Parish Council
May 2022 – Cherry Hinton Residents Association
May 2022 – Cllr Claire Daunton, Cllr Russ McPherson & Cllr Katie Thornburrow

The feedback from consultation was overwhelmingly positive, with key outcomes being incorporated into the code including:

- Active transport to be prioritised over vehicles, particularly cars;
- Generous landscaping and tree planting where possible;
- Consideration to be given to biodiversity where possible;
- Flexible public spaces which can be used for a variety of purposes

Community engagement will continue over the life of the development, including a participatory design process to develop the detail design and use of the local centre. Further guidance on engagement can be found within the Lifespan section of the Code.

Vision

The Land North of Cherry Hinton will extend Cherry Hinton with an exemplar, highly liveable and sustainable development.

The development will have a strong sense of place and community focus with two new schools, a characterful market square of shops and community buildings, and spaces for play and exercise near every home. By designing in a compact way, everything will be within walking distance.

Public space will bring people closer to nature. Natural planting will combine sustainable drainage and tree planting and this will be threaded through the social spaces, to create an attractive and climate change resilient environment.

The new homes will be gas free and generate low carbon energy. They will combine local character and materials with contemporary architecture and fundamental principles of good urban design to create a rooted but forward looking sense of identity.

We aim to reduce car use. The streets will put people, and place, first. Every street will be designed to reduce speeds, and produce low traffic. As public spaces, they will support future residents to create socially connected, healthy, and sustainable lifestyles - along with a network of dedicated cycle routes and footpaths to ensure walking and cycling are a first choice for making every local trip.

CAMBRIDGE AIRPORT

TEVERSHAM

All Saints Church

AIRPORT WAY

ALLOTMENTS

PLAY

PLAY

PLAY

Local Centre

Primary Square

Primary School

Secondary School

CYCLE ROUTE TO CAMBRIDGE

COLDHAMS LANE

CHURCH END

ALLOTMENTS

PLAY

CHERRY HINTON RD

TEVERSHAM DRIFT

GAZELLE WAY

CHERRY HINTON

HIGH STREET

St. Andrew's Church

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Section B: Site-Wide Coding

A mews street with a shared surface and climbing plants at the edges
Knights Park, Eddington, North West Cambridge **Pollard Thomas Edwards and Alison Brooks Architects**

1 Context

LNCH will be integrated with the local area. A new tree-lined primary street will link Coldhams Lane and Cherry Hinton Road, including separate routes for bikes. The development provides new schools, shops and community facilities for the use of the whole community.

The site itself is inherently walkable. The Design Code establishes strategic destinations and site wide coding that support walkable neighbourhoods based upon 5-10 minute walking distances.

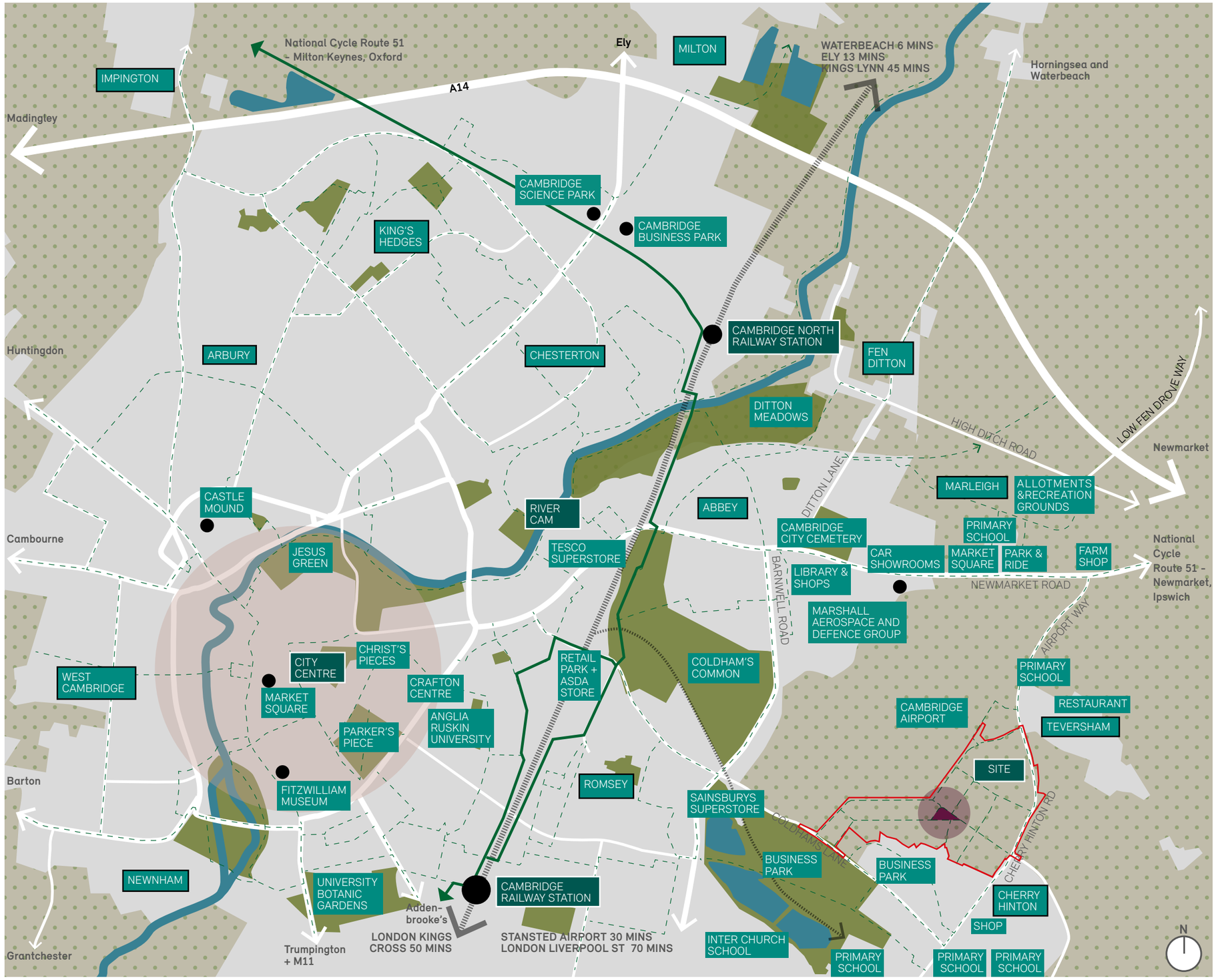
As well as creating new landscapes, the designs will retain the public rights of way, watercourse, retained mature trees, and leafy boundaries within the site. Designs will respond not only to the distinctiveness of individual buildings or details but take care to understand the way that they come together to create a sense of place.

Location

The site is located on the eastern fringe of Cambridge, to the east of Cambridge Airport, and north of the suburban village of Cherry Hinton. It is around 15mins bike ride to central Cambridge, and to the east of the site begin the rural fields of Cambridgeshire.

The village of Teversham is located 5mins bike ride to the north-east of the site and is separated from the development site by green belt.

Main roads around the site are Coldhams Lane on the south-west boundary, and Cherry Hinton Road/Airport Way along the east boundary. The proposed primary street network will form a through connection between these existing roads.



Key

- Railway
- Cycle Network
- Chisholm Trail strategic pedestrian and cycle route (2018)
- Major open spaces
- Built up areas
- Green Belt
- Site Boundary

The site in context

Built character

Local character

As an urban edge, the local area has a mixed character. The historic village cores, which are small but have a strong underlying local character, grew into large car dependant suburbs in the second half of the 20th century. These modern suburbs, combined with busy roads, light industry, and aviation with agricultural fields beyond, are the dominant surrounding character.

Well designed places are born out a thorough understanding of both the local and wider context. The development offers a great opportunity to strengthen the character of the area and prioritise sustainable transport with a new, locally inspired, modern distinctiveness. Inspiration for this modern distinctiveness should be drawn from the three sources below. Design teams must demonstrate at early pre-applications conversations how these have influenced emerging concepts.

- Characterful historic village cores such as Cherry Hinton and Fulbourn
- Historic Cambridge residential streets
- Recent, quality Cambridge developments.

Village cores

The nearby villages, such as Waterbeach and Cherry Hinton, are characterised by having a distinctive triangular form, forming the focal point for a high street. These create a unique sense of place and mark the entrance to the village core.

Buildings arranged around the village core have a strong rural feel, with materials including lime render and timber boarding. Buildings are low rise, but are capped by steep, often almost sculptural, tile roofs, functioning as a true "fifth elevation" and being the most dominant single feature of the buildings.

Historic Cambridge

Cambridge has many very historic areas, each with their own character and offering a rich source of inspiration for design teams.
Restrained 18th and 19th century

Gault brick terraces are the common residential form in urban Cambridge, with grand formal streets often linked together by narrower highly characterful streets and lanes.

Leafy avenues of detached and semi-detached Victorian villas with rich decoration are common in the historic and established suburbs.

Recent developments

Being able to draw local distinctiveness from a city's recent developments is sadly rather unusual, but in Cambridge is justified. Cambridge as a city is representative of a place that has taken, and is continuing to take, steps for positive change. The best new developments in Cambridge have a distinctive local quality all of their own, adding a new layer of distinctiveness to the expanding city and adding to its history.

Cambridge has been acknowledged for its promotion of restrained and thoughtful contemporary architecture, cycling, and forward-thinking sustainability. This development is part of that story, and each of these important qualities must be reflected in proposals as they are brought forward.
The best modern Cambridge developments are notable for a use of restrained and thoughtful contemporary architecture – inspired by but not copying – historic precedents. They are low- to mid-rise, both urban and urbane, and make extensive use of the familiar Gault brick palette. Streets are designed to incorporate SuDS and natural planting and often incorporate innovative typologies that help them to be comfortably developed to higher-than-average densities. Parking is typically concealed, and car restricted or car free streets are increasingly common.

Character Areas

Working within the Character Areas guidance, a contemporary interpretation of traditional local building forms should be developed – drawing inspiration from other contemporary developments within the city including:
- Grouping and street designs
- Building designs
- Materials
- Decorative elements.

Village cores, Fulbourn High Street

Historic Cambridge

Recent developments. Accordia, Cambridge **Grant Associates and FeildenCleggBradleyStudios**

Landscape character

The local agricultural landscape is open and arable, reflecting the fenland character of this area of north east Cambridge, with drainage ditches and hedged boundaries dotted with mature trees. The southern boundary meets with the suburban gardens of Cherry Hinton. The whole west boundary is lined by the flat and featureless grass of the airfield.

The Green Belt crosses the northern tip of the site, including most of the airfield and separating the site from Teversham village to the north.

Cambridgeshire's rich fenland character of ditches, hedges and meadow planting, and its history of working with natural systems for water management should provide the basis for landscaping within the new development. To the east, the landscape features a gentle rise to a local high point in the southeastern quadrant of the site.

Fen Ditton, Fred Ingrams

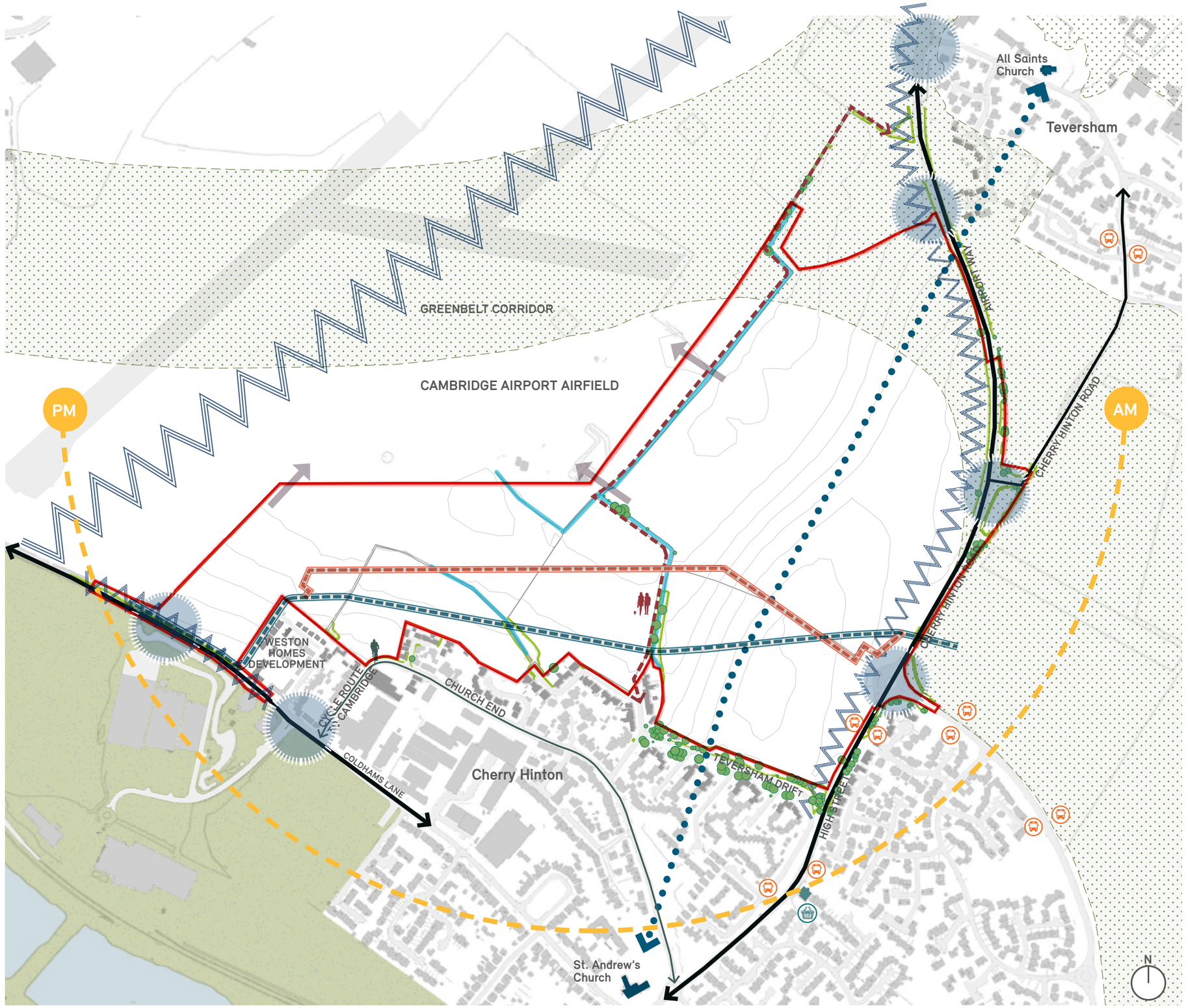
Open fields with hedged boundaries

Natural planting within the award drain

Opportunities and constraints

Future detail phases must respond to the existing constraints and future opportunities, and make good connections to the surrounding area.

- Maintaining Public Rights of Way
- Re-routing the award drain
- Diverting the gas main
- Retaining the Green Belt
- Work with the topography
- Incorporate retained existing trees, hedges and habitats
- Respond to the towers of All Saints Church, Teversham and St Andrew's Church in Cherry Hinton
- Incorporate wildlife permeable boundaries
- Include integrated nest box provision
- The Principles of Good Acoustic Design must be considered to mitigate traffic and aircraft noise (while airport remains in operation) on future noise sensitive receptors / users eg residents and schools
- Maintain airport wildlife safeguarding
- Futureproof for long-term airport redevelopment.



KEY

- Application Boundary
- Views
- Noise source, Airport, Airport Way & Coldhams Lane
- Future connections
- Neighbouring houses
- Public Right of Way
- Existing Gas Main
- Potential New Gas Main diversion
- Main vehicular junctions
- Existing Drainage/water courses
- Bus stop
- Retained existing trees
- Retained existing hedgerow
- Public Green Space
- Topography /contour lines
- Local landmarks
- Green Belt

Constraints and opportunities plan

Framework masterplan

The framework masterplan was developed alongside the Code. This illustrative plan aims to draw together the many facets of design quality requirements and design intent described within the Code, and reflects the approved parameter plans for the development.

This framework masterplan is used within this document as a baseline design to help generate the illustrative designs and diagrams included in the Code.

The framework masterplan, and the diagrams generated from it, are intended as illustrative. They show the principles that need to be followed to deliver the quality requirements of the Design Code, while being a flexible starting point for designers to make use of when making their detailed proposals.

KEY

- Application Boundary
- Retail Use
- Community Infrastructure
- Flexible Ground Floor Use
- Sales Village
- Site Offices - Temporary building
- Potential Health Centre
- Play Areas
- School Sites
- Allotments
- Green Infrastructure / POS
- Water Attenuation
- Street Planted Swales /SuDS
- Pump station
- Landscaped Swales
- Diverted Drainage Ditch
- Safeguarded Corridors
- Key Spaces along primary and secondary streets

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Framework Masterplan

Living Infrastructure

Living infrastructure must form the first consideration for the design and Reserved Matters applications

We have grouped the four characteristics of Public Spaces, Resources, Movement and Nature under a shared heading of Living Infrastructure. This is to emphasise the importance to the Code of taking an integrated design approach to all aspects of design in the public realm.

Public spaces, including streets and open spaces, must work hard on LNCH to accommodate requirements of the Code relating to nature, water, biodiversity and to support cultural sociability and active lifestyles.

- Applicants must demonstrate at the first pre-application meeting how these fundamental requirements have been embedded/integrated and have informed early concepts
- Detailed designs for public spaces (including streets) will need to take into account a variety of requirements set out in the code
- Accordingly, design teams must bring Landscape Architects to the first conversations.

Cultural sociability

Socialising, events, participation and community facilities.

Space typologies

Typologies that are focused on quality and local needs.

Active lifestyle

Multi-generational play, sports facilities and recreation areas.

Materiality and elements

Identify a suite of elements that will be used within public spaces.

Urban greening

Vegetation to mitigate urban heat and improve carbon sequestration.

Nature conservation

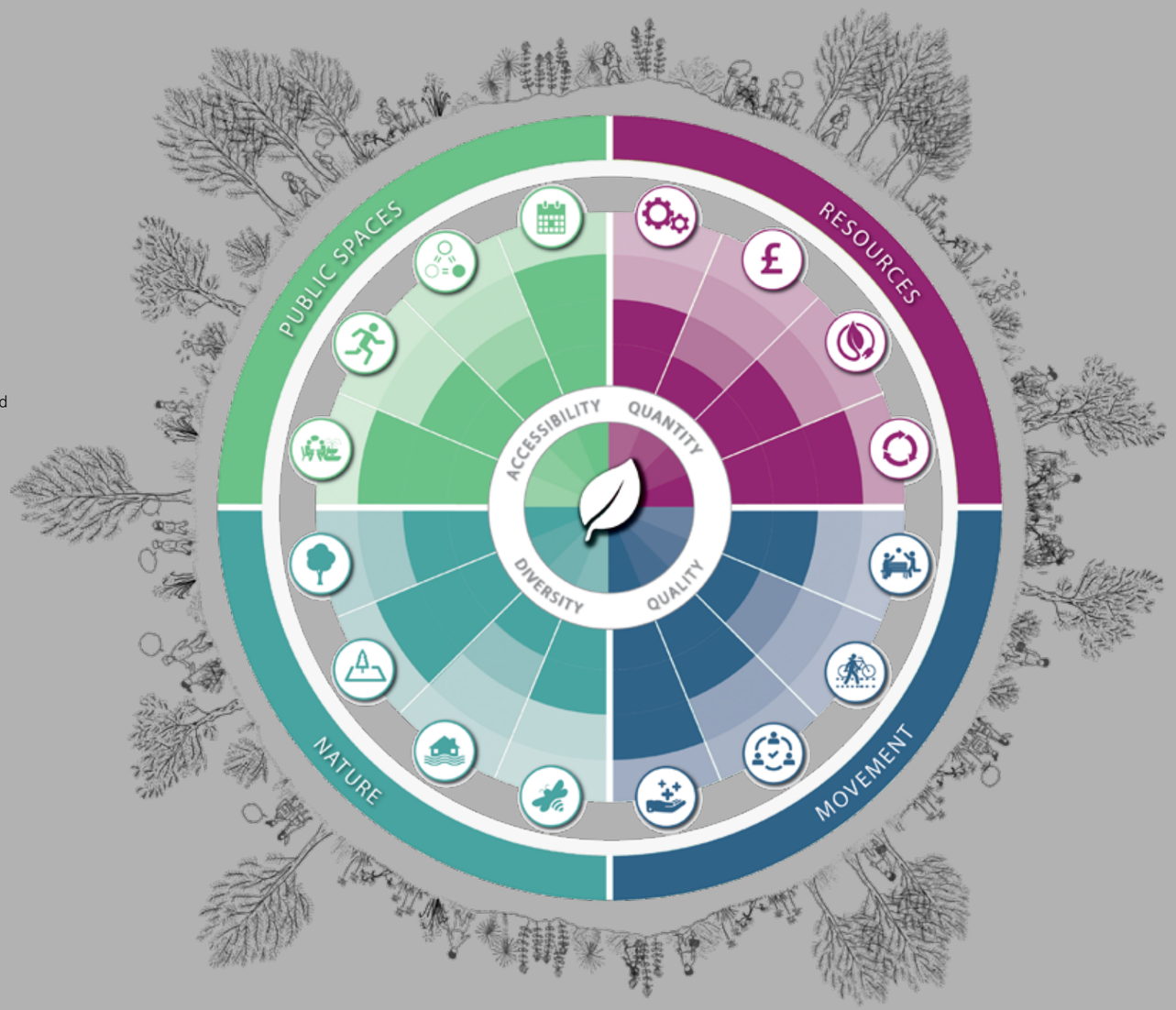
Protect and conserve valuable areas that include intact natural systems.

Water responsive

Flood mitigation in weather events and managing water as a resource.

Living landscapes

Biodiversity net gain and nature conservation supporting wildlife.



Cost efficiency

Regulate micro-climate, reducing the cost to energy and water bills.

Place value

Increased tourism, productivity, livability and business innovation.

Resource management

Renewable resource management including heat, energy and water.

Circular economy

Identifying waste outputs and establish waste as a resource to be further utilised.

Street hierarchy

Setting out a overarching hierarchy of street networks.

Street typologies

Typologies that are focused on quality and requirements of the masterplan.

Movement

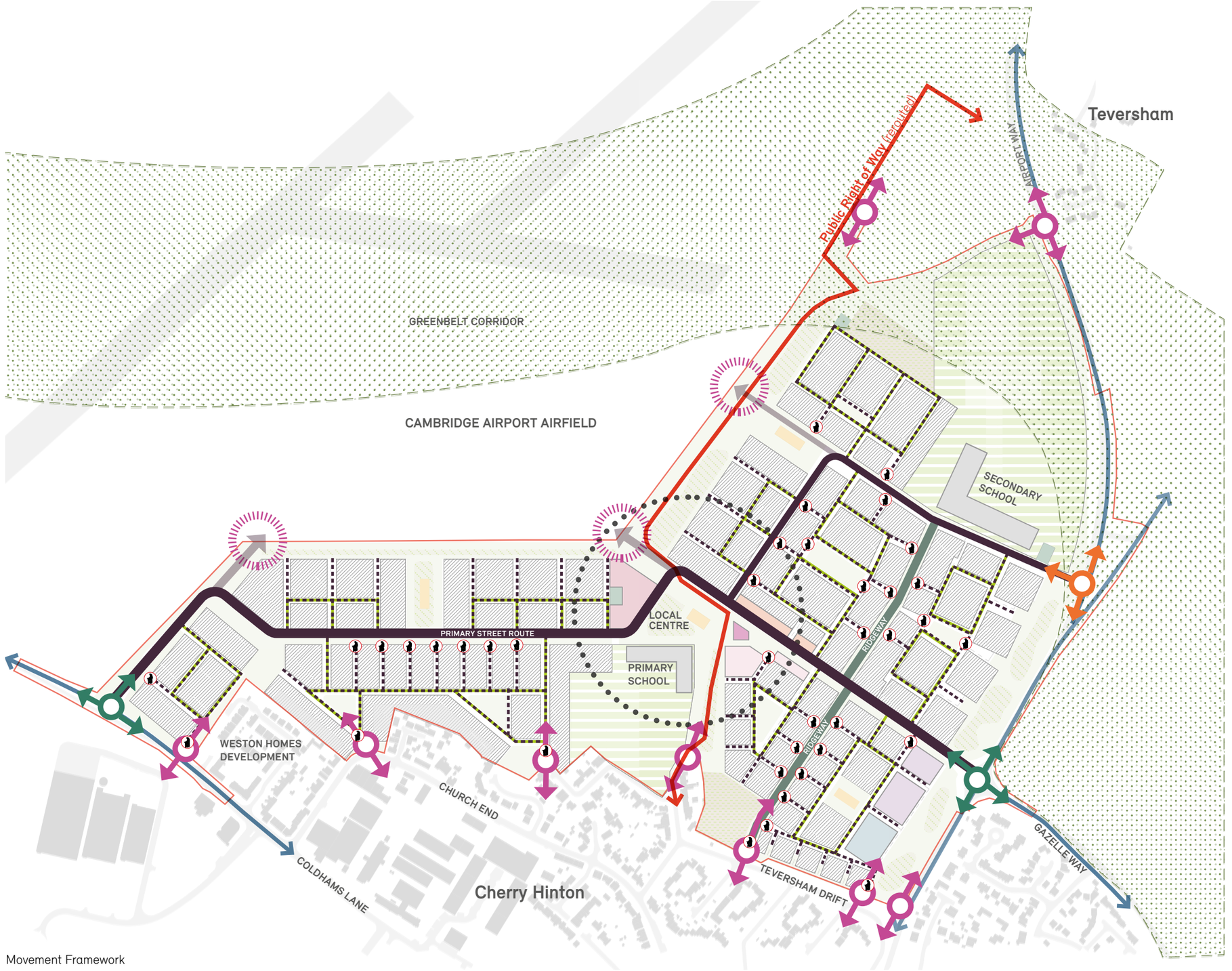
Easy access to open spaces through modes of active travel. Avoid creating desire lines through designated sites and protected species habitats.

Materiality and elements

Identify a suite of elements that will be used within streetscapes.

2 Movement

The development must have low speed, tree-lined streets and cycle lanes forming a network of routes. All streets must prioritise walking, cycling and the use of public transport over car use. Streets must encourage social interaction, with focal points for people including places to sit and doorstep play. A layout of short loops and modal filters should be used to create small, low motor-traffic neighbourhoods with no through routes for motor vehicles.



KEY

- Application Boundary
- Primary Vehicle Access
- Secondary Vehicle Access
- Pedestrian or Cycle Access
- Safeguarded Future Connection
- Modal Filter
- Primary Street
- Secondary Street
- Ridgeway (car-free Street)
- Tertiary Streets
- Service Loops
- Public Right of Way (rerouted)
- Future Connection

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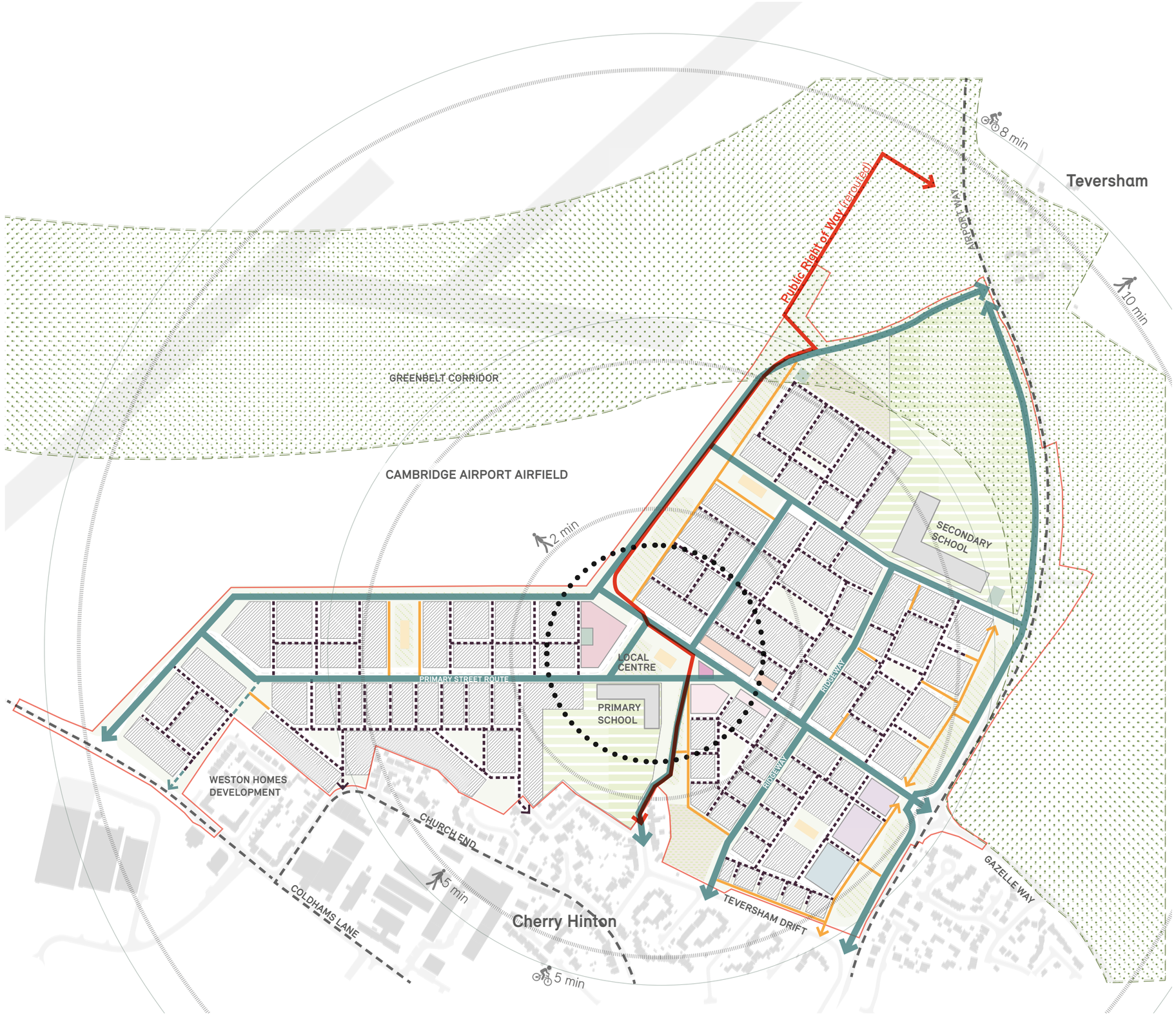
Movement Framework

Active travel

To prioritise active travel, quiet and low speed residential streets must connect into dedicated cycling and walking routes to form a convenient and attractive network of routes.

The route network must link all the proposed community/non-residential uses with active travel and make safe connections to the surrounding routes network beyond the boundaries of the site.



KEY

- Application Boundary
- New dedicated cycling infrastructure
- Public Right of Way (rerouted)
- Pedestrian only pathways
- Tertiary Street network (low speed - pedestrian/cycling priority streets)
- Existing pedestrian/cycle links

N

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Pedestrian priority design

Walking and cycling

The development must promote both walking and cycling as the most convenient and pleasant travel choice to get around the development and to connect to the local area.

Contextual analysis for proposals should include consideration of the location of existing pedestrian and cycle networks, and planned improvements so that these can provide a starting point for design.

All new streets must be safe and overlooked with frontages, and correspond to their role in the street hierarchy. Design guidance for the enclosure and hierarchy of streets can be found in the Built Form and Public Spaces sections of the Code.

Junctions and crossings

Junctions must prioritise walking and cycling movement, and given significance by a combination of surrounding building frontages, living landscape, changes in road surface and as a focus for social activity.

Crossings should be located at junctions, and at other convenient points and desire lines to key destinations.

Streets must incorporate inclusive design for all users.

Signage should be carefully integrated to minimise street clutter. Planting and street furniture should be positioned clear of visibility splays. Refer to the Manual for Streets for appropriate visibility splay dimensions.

Junctions will be important focal points for social meeting and wayfinding. Design guidance for street corners can be found in the Built Form and Identity sections of the Code.

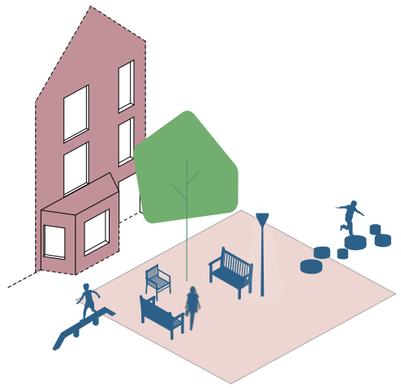
Low speed street design

Street designs must produce a low design speed of maximum 20mph on the primary and secondary street network, and a maximum of 15mph on all other streets.

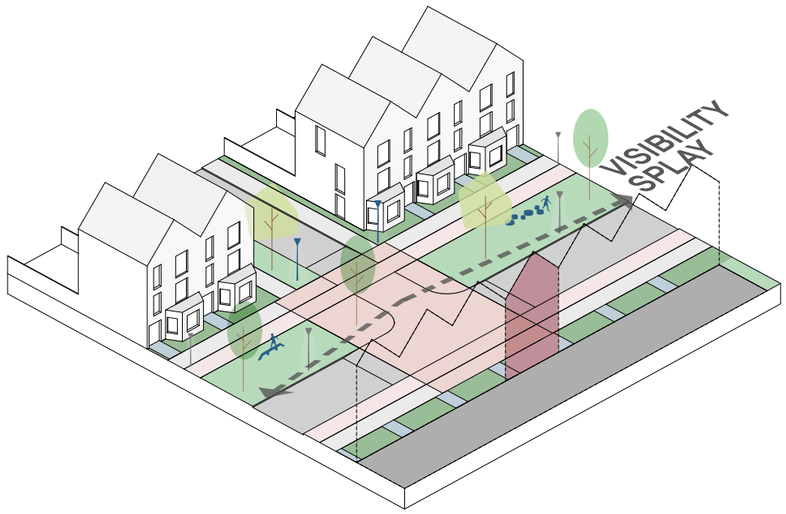
Build outs should reduce the carriageway width to a minimum of 2.75 m to achieve single file traffic.

Key to promoting walking and cycling and socially active streets will be low traffic speeds. Low speeds and pedestrian priority can be delivered through a mixed approach, combining raised tables at junctions, providing vertical deflection, minimising turning radii (e.g. 6m or 4.5m on lower trafficked streets), and with landscaped build out to provide horizontal deflection as well as changes in surface finish to visually break the linearity of the carriageway.

Family of focal points

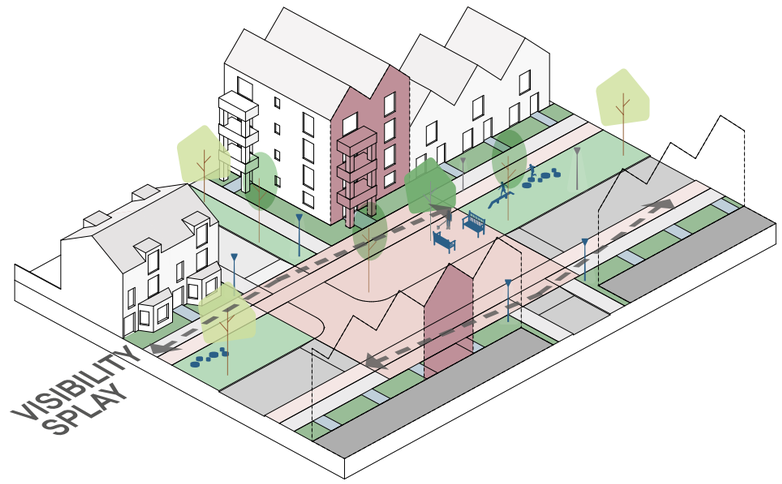


Key focal points may combine multiple elements

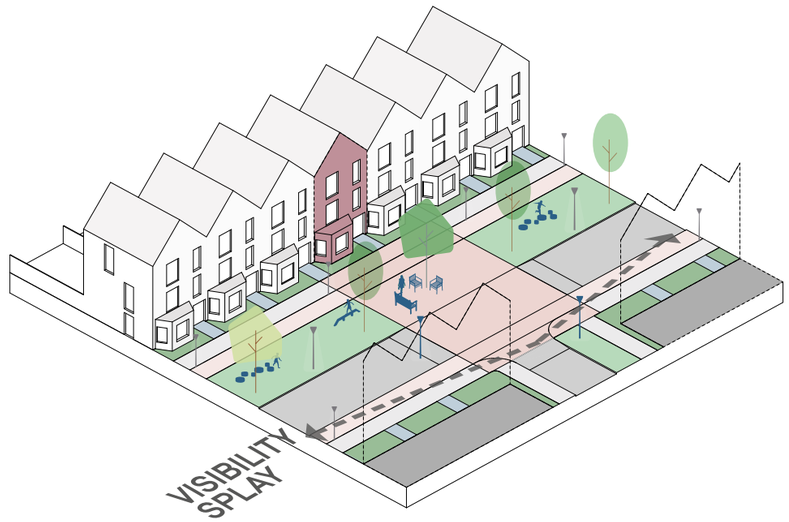


Opportunity to introduce nodal spaces, by adapting development parcels, to introduce small pocket parks at key locations in the masterplan

Movement and urban grain



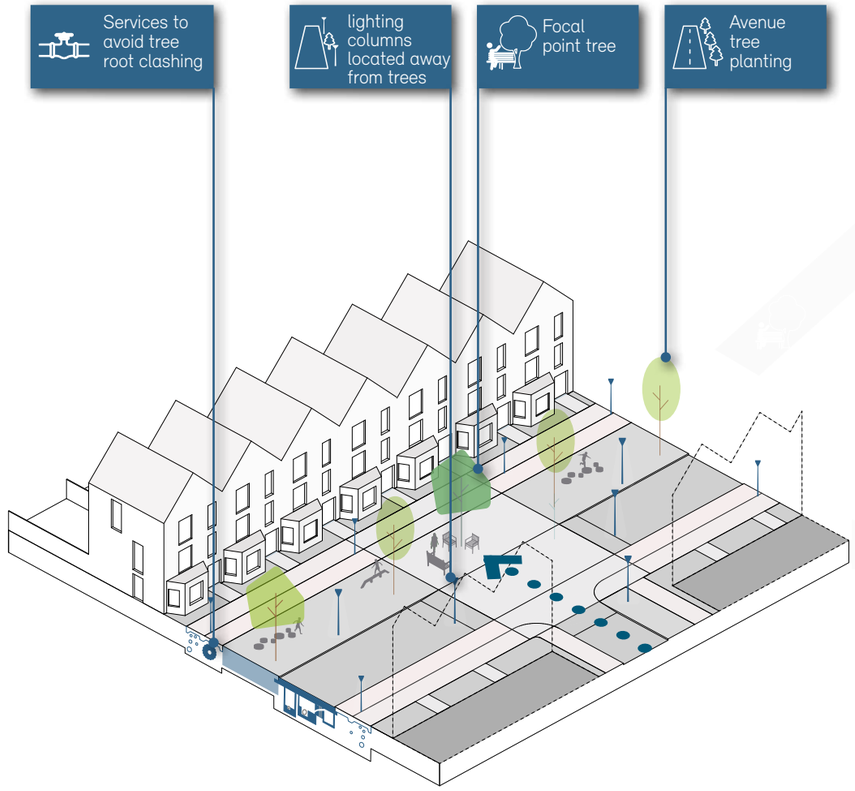
Staggered junctions between primary and tertiary networks terminate vistas and provide opportunity for wayfinding



Tree-lined streets and strategic tree locations

The development aims to create a leafy and tree-lined movement network. This will need a strategic approach to be taken to all aspects of street design. Specific trees will be located to act as focal points and for wayfinding.

- Street trees must be included on all primary and secondary streets to provide a visually continuous effect
- Street trees should be included on all tertiary streets
- Special and memorable trees should be strategically located to create focal points
- A mixture of tree species must be interspersed within each street to help provide disease resistance
- Street tree and services design must be coordinated at an early stage to avoid clashes
- Tree pits for street trees must be a minimum of 2-2.5m in hard paving and 2.6-1.8m in soft areas
- Street lighting columns should be located a minimum of 5m from tree canopies
- Tree pits in hard paving may require cellular soil products or similar depending on below ground and adjacent conditions.



KEY

- Retained existing tree
- Large specimen tree for wayfinding
- Focal point tree
- Other street trees at approx. 15m spacing to form avenue

Illustration showing intended integration of cycle parking into public, private and shared spaces

Cycle parking

Good cycle parking for all residents and visitors must be provided to encourage regular cycling.

All proposals must comply with the local authority requirements for cycle parking (Cycle Parking for New Residential Developments SPD or successor document), and Local Plan 2018 standards for residential cycle parking including:

- Cycle parking delivered using Sheffield or A-frame Sheffield stands.
- Visitor cycle parking conveniently provided within each open space and near entrances of flat blocks, shops and public buildings
- Visitor cycle parking must be clear of the highway and be well overlooked
- Cycle parking should be provided at key arrival "landing points" in public open spaces
- Shared and visitor cycle parking spaces should be capable of accommodating at least two cargo bikes.

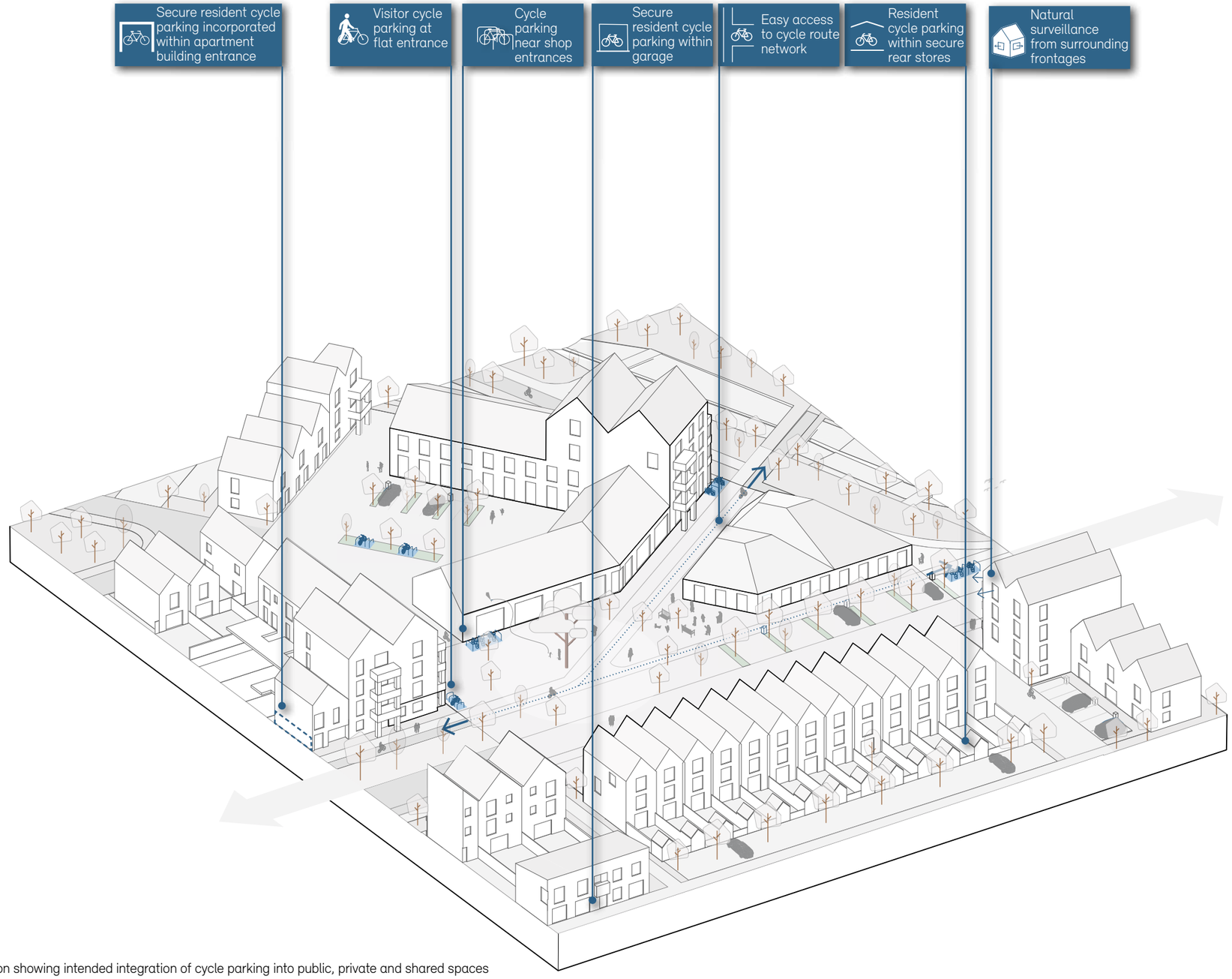


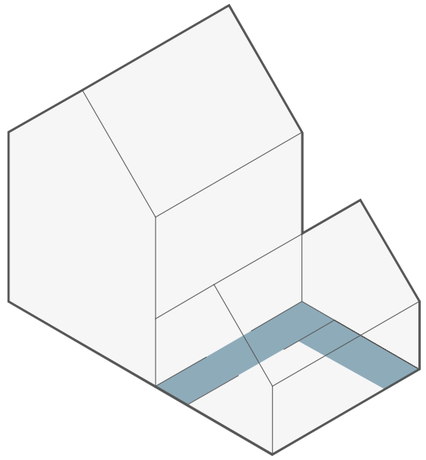
Illustration showing intended integration of cycle parking into public, private and shared spaces

Cycle parking standards

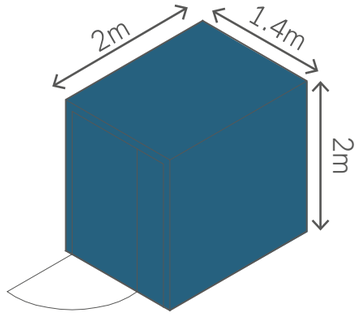
- Where cycle parking is provided as part of the garage, garage dimensions must be a minimum of 4050mm*6m or 3.3m*7m
- Visitor cycle parking in the form of a wall ring/bar or Sheffield stand at the front of individual houses must be provided where cycle parking provision is located in the back garden
- Sheffield (or equivalent) stands must allow a minimum of 1m distance between each stand.

Cycle parking provision

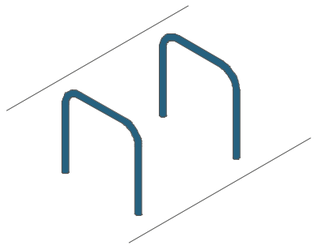
- 1 space per bedroom up to 3 bedroom dwellings
- Then 3 spaces for 4 bedroom dwellings, 4 spaces for 5 bedroom dwellings etc.



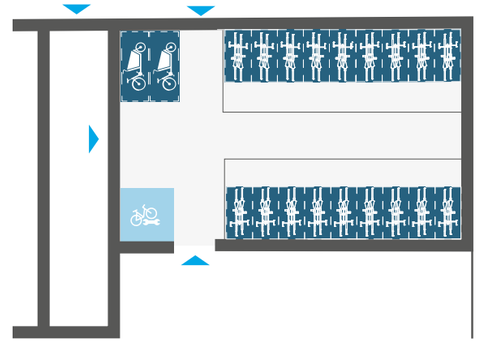
Example garage arrangement incorporating cycles



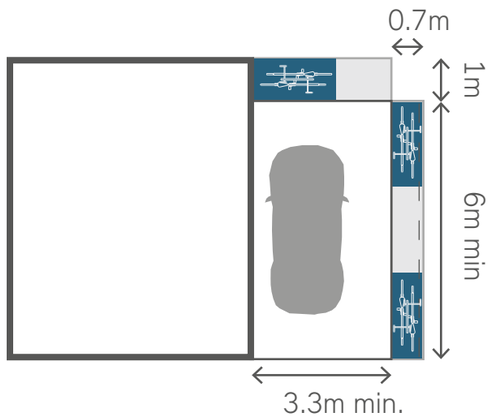
Example of secure covered cycle store for a 2 bedroom house.

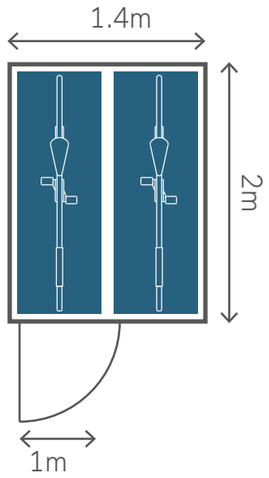


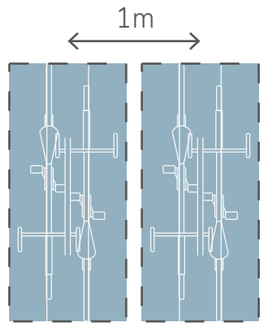
Example of sheffield stands for visitor cycle parking.

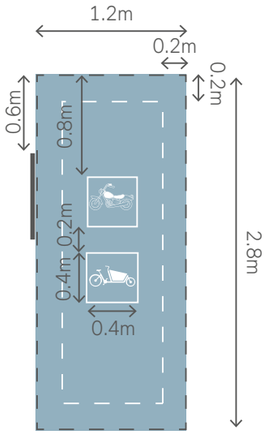


Example of a cycle store integrated into footprint of apartment building with bike maintenance area and space for off-gauge cycles.









Cycle parking for houses

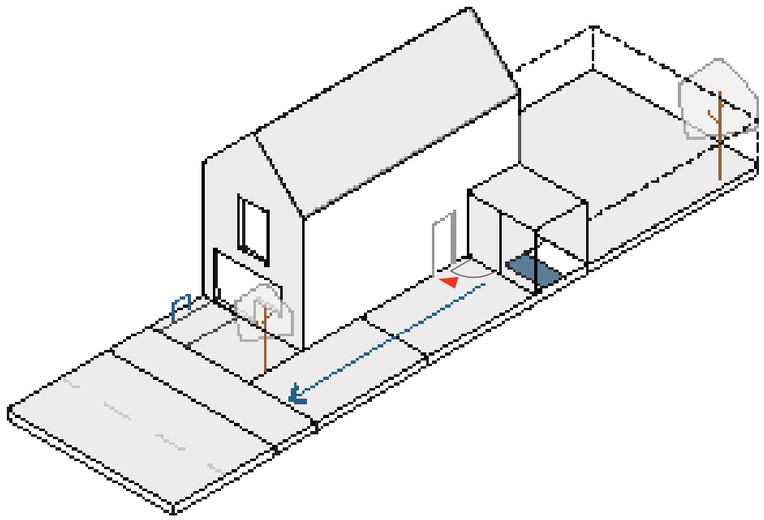
Cycle parking for residents must be provided for in an accessible location that is at least as convenient as the car.

All cycle parking enclosures and secure storage must be lockable, good quality, and must be incorporated into the plot without being intrusive. Every home must provide adequate space for the secure parking of a future cargo bike and must have access to a fixing point for visitor bikes located conveniently for the front door.

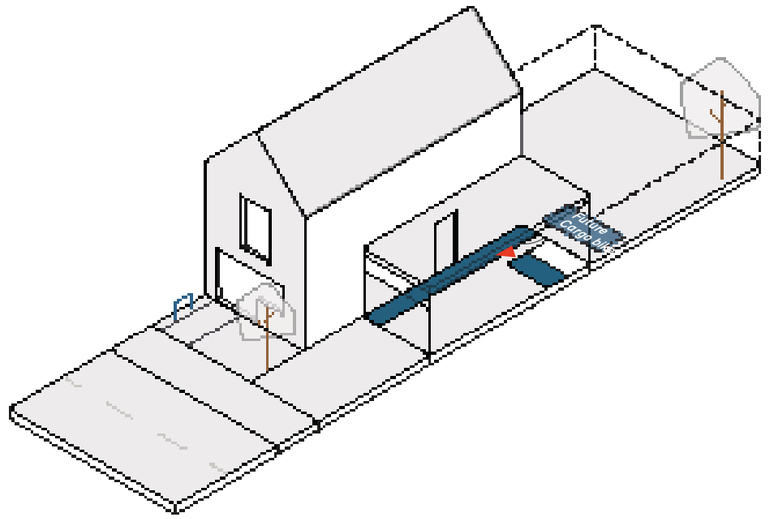
Separate stores within the front threshold should be considered for smaller homes, where no more than 2 bike spaces are required, to form part of a coordinated design that does not rise above the boundary to the public realm.

Large family homes, typically 3 bedrooms and above, require significant amounts of cycle, car and waste storage – which often overload tight, urban, plots. Unless space allows, the code recommends combining home storage requirements within a garage or similar provision, which can be incorporated into the streetscape, or more typically tucked to the side of the home.

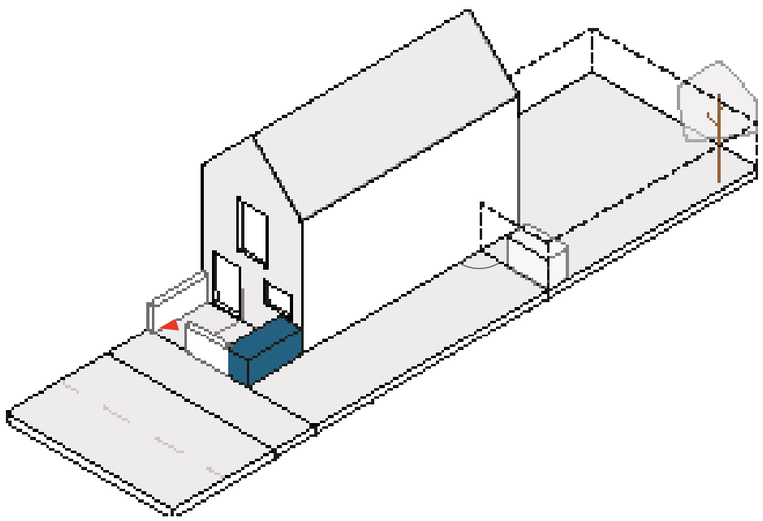
Where a garage is used for cycle parking, it must allow cycles to be removed easily without first driving out any car parked within it. Transport stores or arches may be used in place of a garage, but must meet the same space requirements, and be secured with a gate. The illustrations also include a "mini-garage" – a full width bike garage located on the driveway.



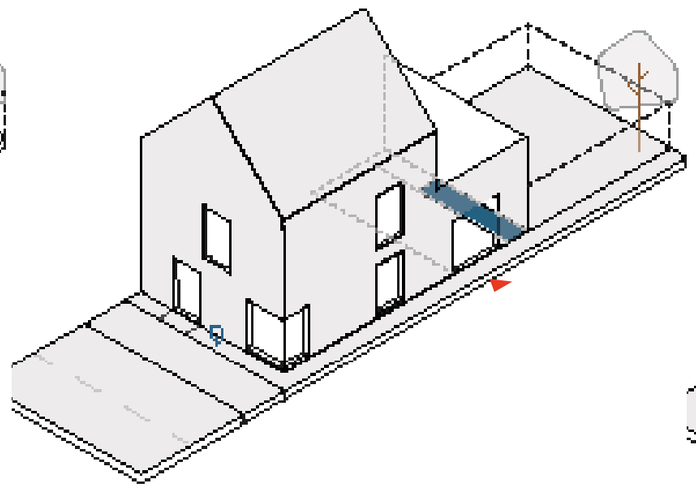
Mini-garage
Full width bike garage located on the driveway.



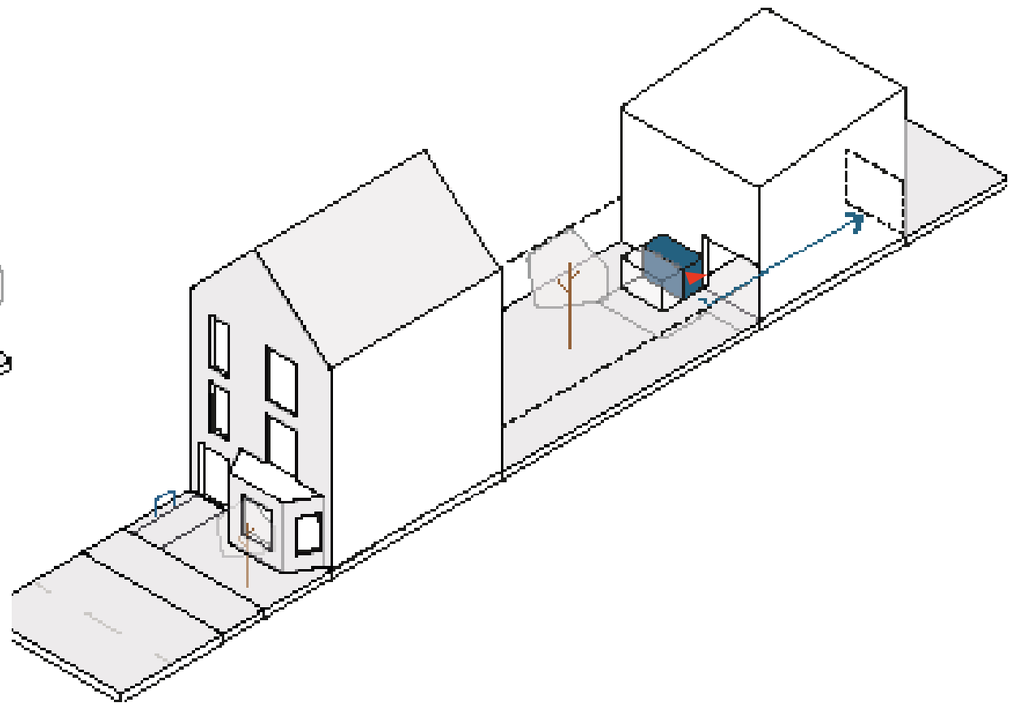
Secure transport stores
Transport stores must be set on or behind the building line, with a secure a gate.



Threshold cycle parking
Threshold store incorporated into front garden boundary for small home requiring 2 cycle spaces or less



Integrated cycle storage
Cycles must be able to be removed easily without removing a car.



Secure cycle store to rear of the coach house
Must include paved access.

Cycle parking for houses

Cycle parking for residents must be provided for in an accessible location that is at least as convenient as the car.

Where a garage is used for cycle parking, it must allow cycles to be removed easily without first driving out any car parked within it.mWhere a separate store is use, this must be lockable, and must not rise above the boundary to the public realm.

Cycle parking for flats

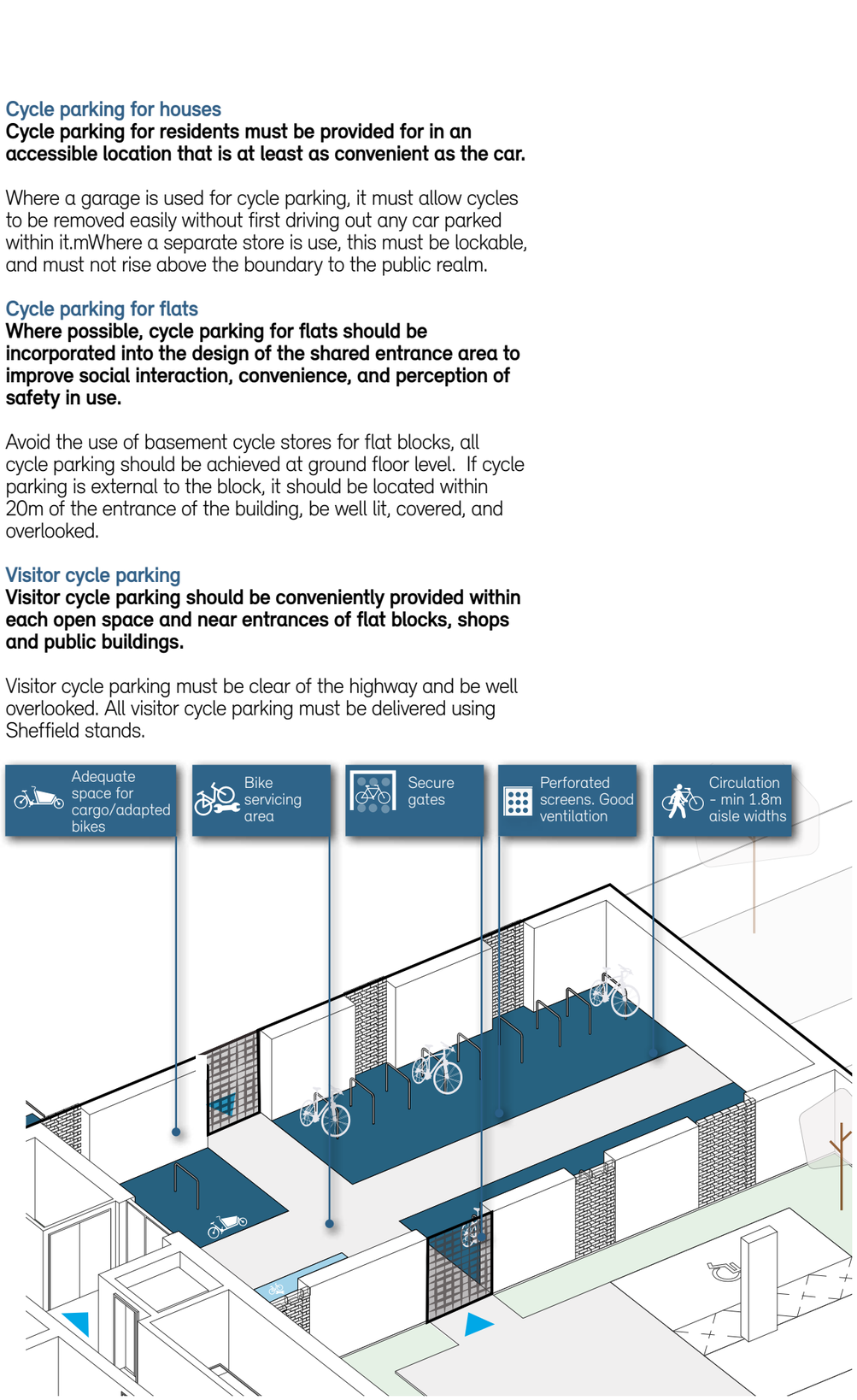
Where possible, cycle parking for flats should be incorporated into the design of the shared entrance area to improve social interaction, convenience, and perception of safety in use.

Avoid the use of basement cycle stores for flat blocks, all cycle parking should be achieved at ground floor level. If cycle parking is external to the block, it should be located within 20m of the entrance of the building, be well lit, covered, and overlooked.

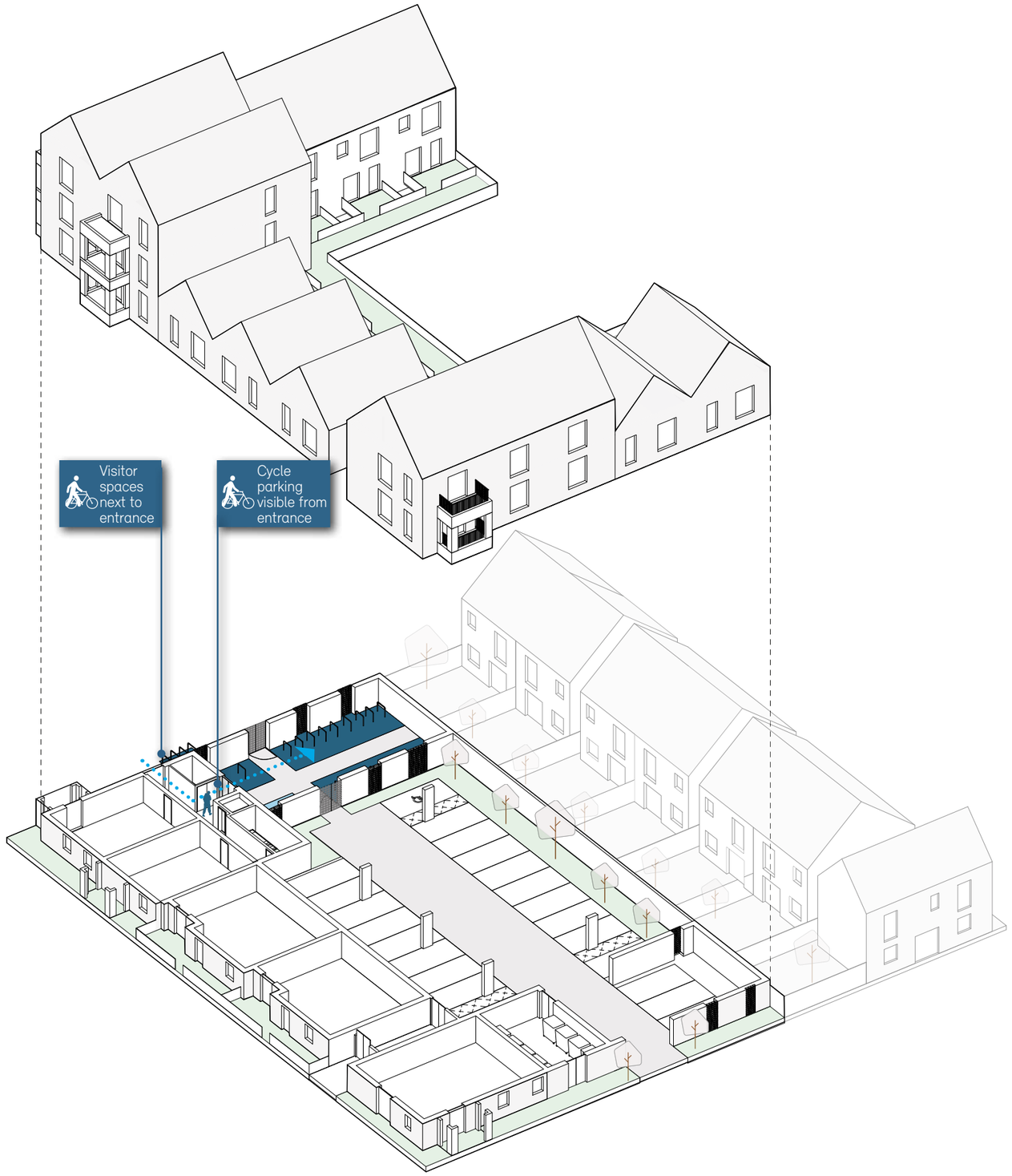
Visitor cycle parking

Visitor cycle parking should be conveniently provided within each open space and near entrances of flat blocks, shops and public buildings.

Visitor cycle parking must be clear of the highway and be well overlooked. All visitor cycle parking must be delivered using Sheffield stands.



Cycle parking within an apartment building



Car parking and car storage

Car parking must be accommodated without being visually intrusive or creating a negative impact on place-making.

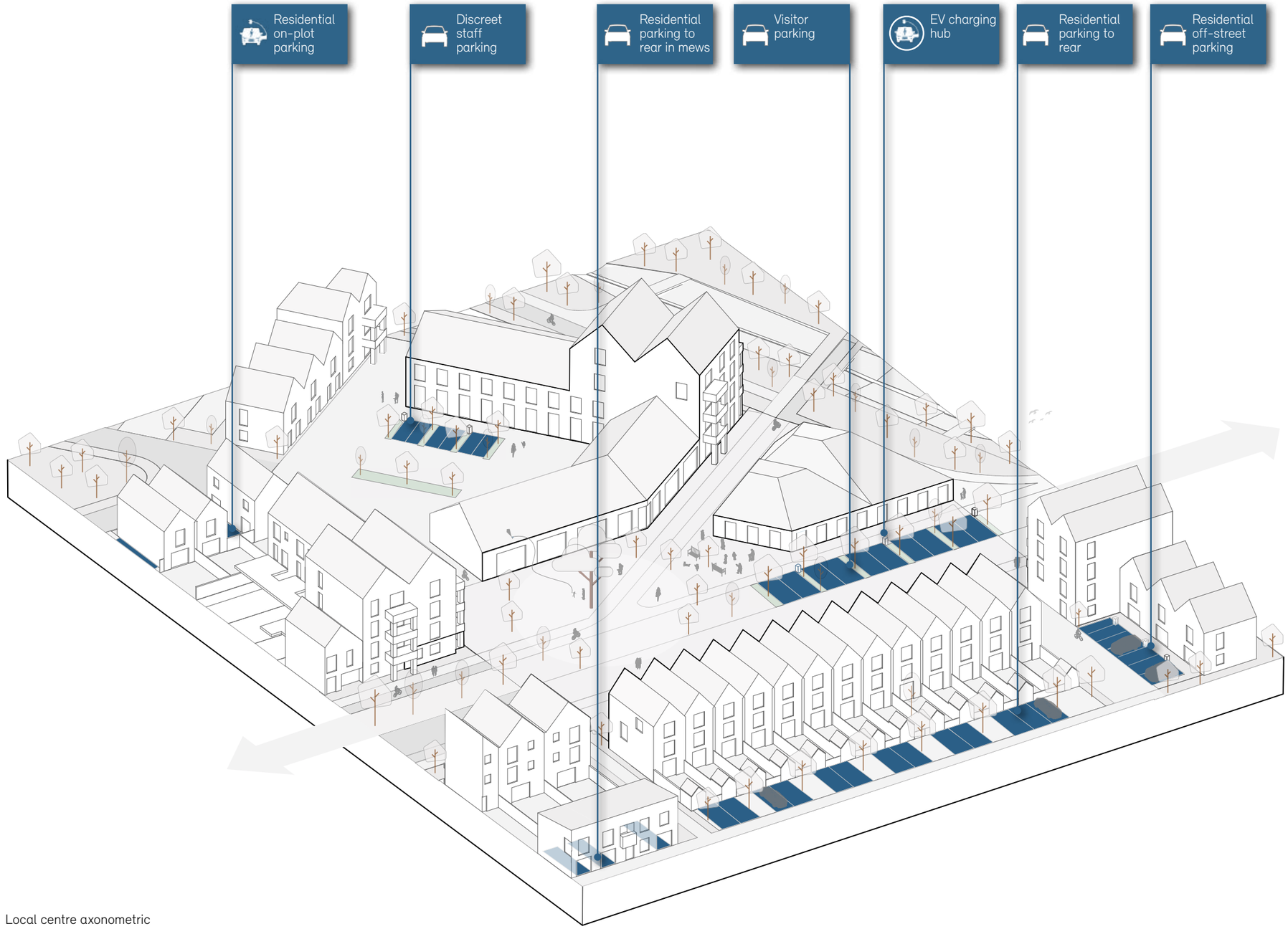
All proposals must comply with the local authority requirements for car parking. Current Cambridge residential car parking standards are as follows:

Up to 2 bedrooms	0 - 1.5 spaces per dwelling
3+ bedrooms	0.5 - 2 spaces per dwelling

Frequent private car use is to be discouraged by the design of the development and the council's parking numbers per unit must be treated as a maximum.

Staff car parking provision for the non-residential uses must be based on the implementation of an active travel plan to reduce parking required.

Spaces should be discreetly located off-street to the rear of buildings.



Local centre axonometric

Residential parking

All on-plot car parking must be designed so it prevents over-sailing of the footway and front privacy strips. In practical terms this will mean driveway parking should be no more than 10m in length to prevent "squeezing" extra cars onto driveways.

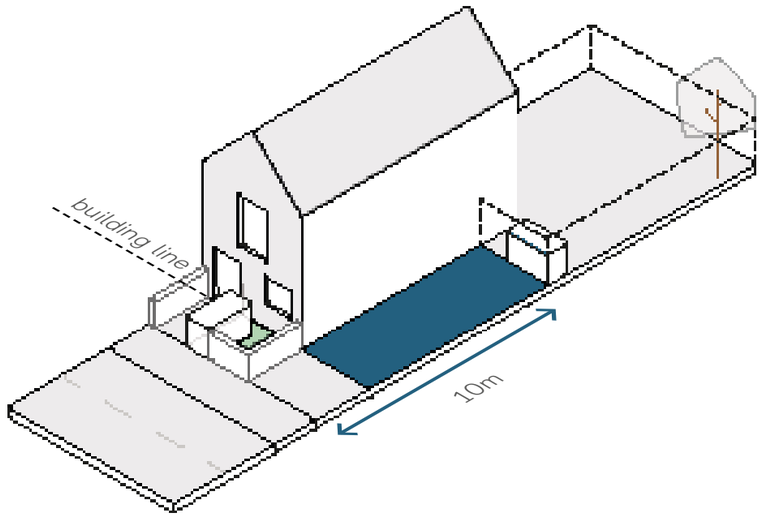
All residential car parking must be equipped with electric car charging, or with the infrastructure in place to have it fitted.

Parking for flats must be considered as an integral part of the building, landscape and placemaking design.

Residential visitor spaces should be distributed strategically across the development. This can include on-street parking.

Proposals must integrate a range of car storage solutions that support the living infrastructure and living buildings requirements of the code. Parking strategies should be clearly demonstrated from the outset.

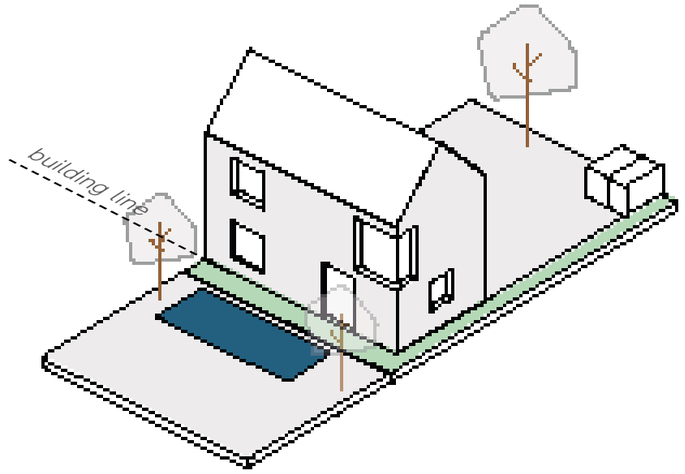
Visibility splays for parking arrangements must be kept clear or no boundary higher than 0.6m.



On Plot: side of house

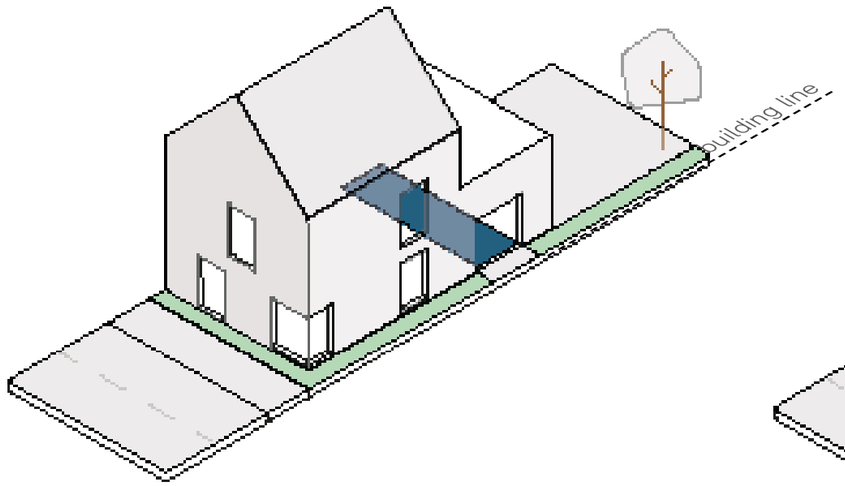
Could be in a garage, in a car port or uncovered

- Any structure or parking space must be behind the building line.
- Widths must be 3.2m min to allow circulation space past stored car



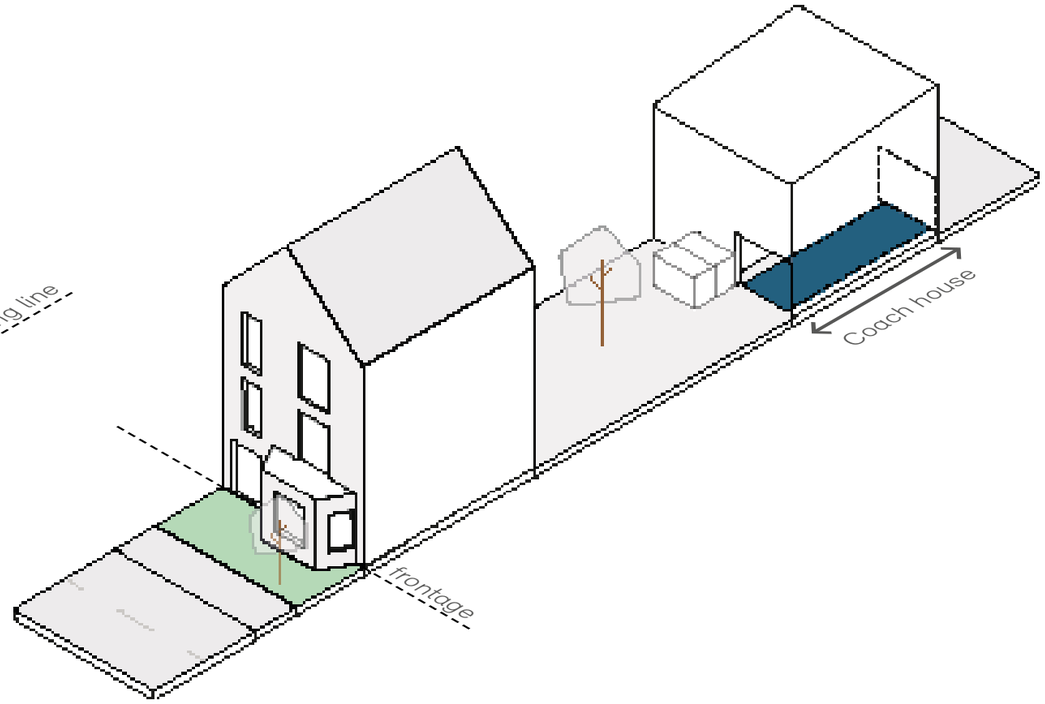
On Plot: in front of house

- Any structure or parking space must be behind the building line.



On Plot: Integrated garage parking

- Any structure or parking space must be behind the building line
- Should be used in locations where continuous building frontage is required.
- Must meet minimum garage dimensions (shown on page 22).



Parking at rear of the house

- Must be accessed from mews street to the rear of the property
- Should create continuous building frontage on the primary and secondary street network.
- Must meet minimum garage dimensions (shown on page 22).

Parking for flats

Parking for flats can be located at the rear on plot. This parking must be securely concealed behind active and attractive frontages. Large open rear parking courts will not be accepted.

Parking provision for flats must not dominate or be in place of quality shared amenity space provision. This should be shown at a usable depth to accommodate both activity and planting and can be achieved:

- At ground level - acting as a buffer to parking
- On a deck over parking
- On roof terraces.

To avoid overly dominant parking areas, rear parking courts must not back on to one another.

Structural columns, where required, must not encroach into the width of the parking bays.

- Proposals must consider the implications on microclimate. Designs should seek solutions that contribute to urban cooling.

- Proposals must demonstrate how parking spaces could be adapted over time when private car ownership may fall.

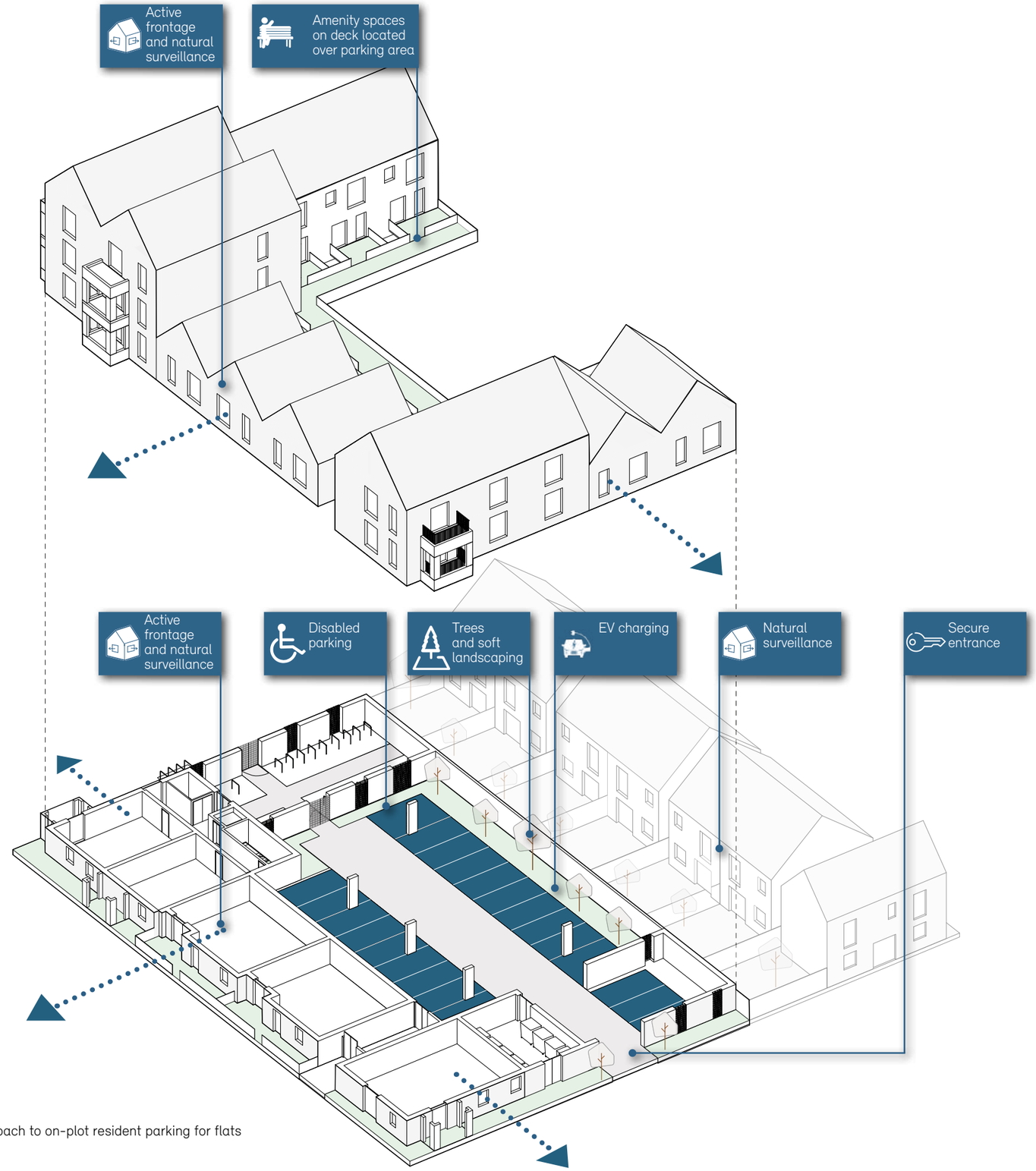


Illustration of an acceptable approach to on-plot resident parking for flats

Mews streets

Rear mews streets have been incorporated into the Code to provide rear parking and servicing for homes with car free frontages or restricted parking, such as terraced houses.

Where mews streets are used they must be arranged to create a well overlooked and active street. A sense of enclosure should be formed with a combination of active building frontages, a varied roofline, and high quality boundaries such as walls or hedges.

Mews garages must be interspersed with front doors and windows along the ground floor frontage. To soften the mews streets, thresholds must include planting including climbing plants.

Mews streets should have the appearance of a continuous surface. Where this cannot be achieved with a shared surface, a continuous low 20mm kerb should be used, with a matching finish used for both pavement and carriageway. Mews surfaces can use block paving or heritage asphalt finishes.

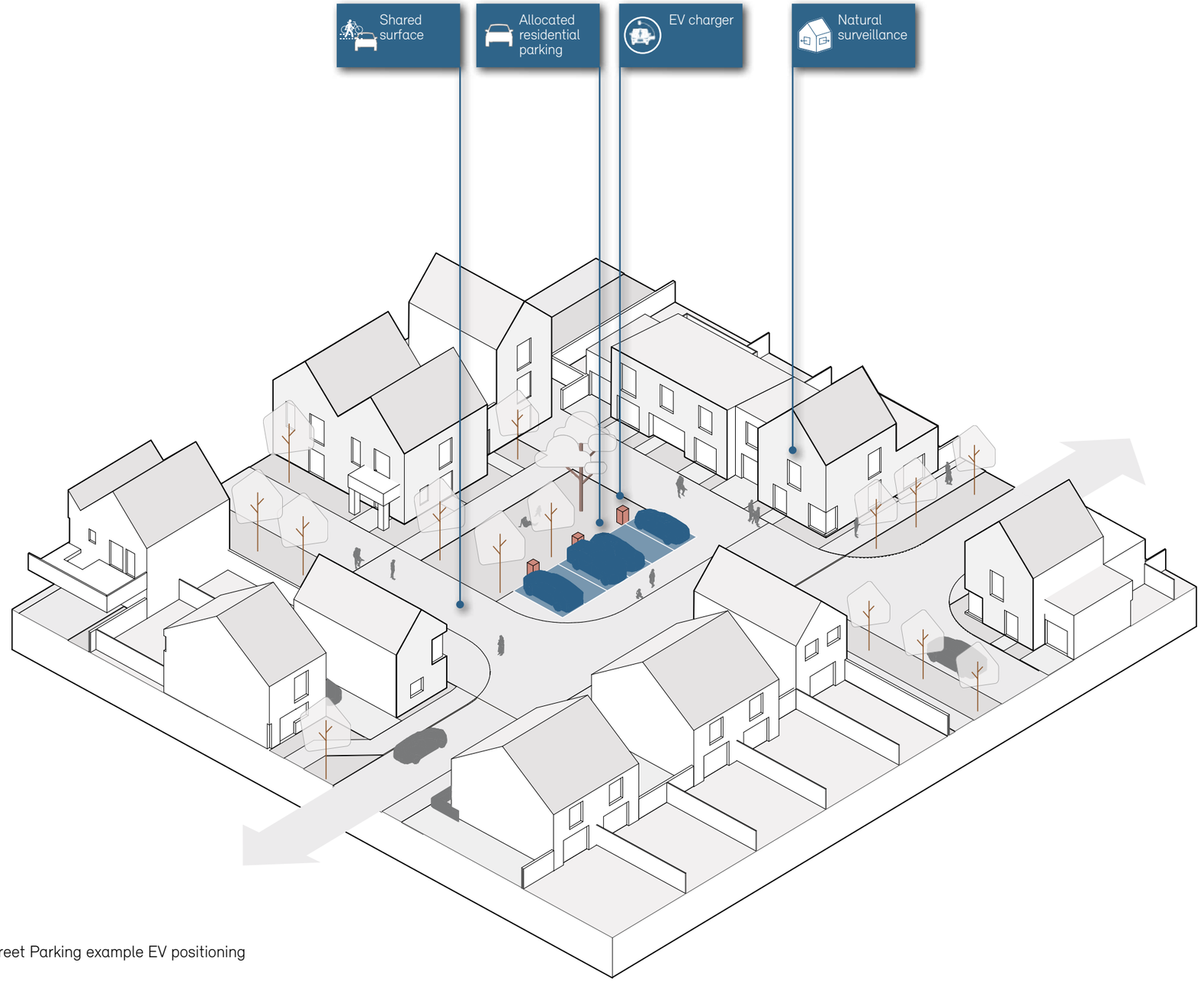
Parking squares

In place of using rear parking courts, parking squares can be incorporated into the public realm.

Parking squares must have natural surveillance from surrounding building frontages. They should incorporate social spaces and landscape planting alongside the provision of parking spaces.

Locations for possible provision of car-club vehicles should be considered within parking squares.

Further guidance on creating enclosure can be found in the Built Form section of the Code.



Axo - On Street Parking example EV positioning

Waste collection and servicing

Waste collection vehicles and storage

The street layout must minimise the negative impacts of large waste collection vehicles on the streets, sense of enclosure, and public realm.

Waste and recycling storage and collection must be robust and be carefully integrated into the urban design to not detract from the street scene. The refuse collection route should allow vehicles to continue mainly in a forward direction and avoid vehicles reversing, except where a turning head is specifically incorporated into the street scene for this purpose.

Tracking for refuse vehicles must be provided as part of any reserved matters application. Tertiary street surfaces and radii must be minimised while being suitable for a vehicle to maintain 300mm from the kerb and to turn without oversailing the highway edge.

Refuse collection points should be within 30m of homes and a maximum of 10m from the adopted highway.

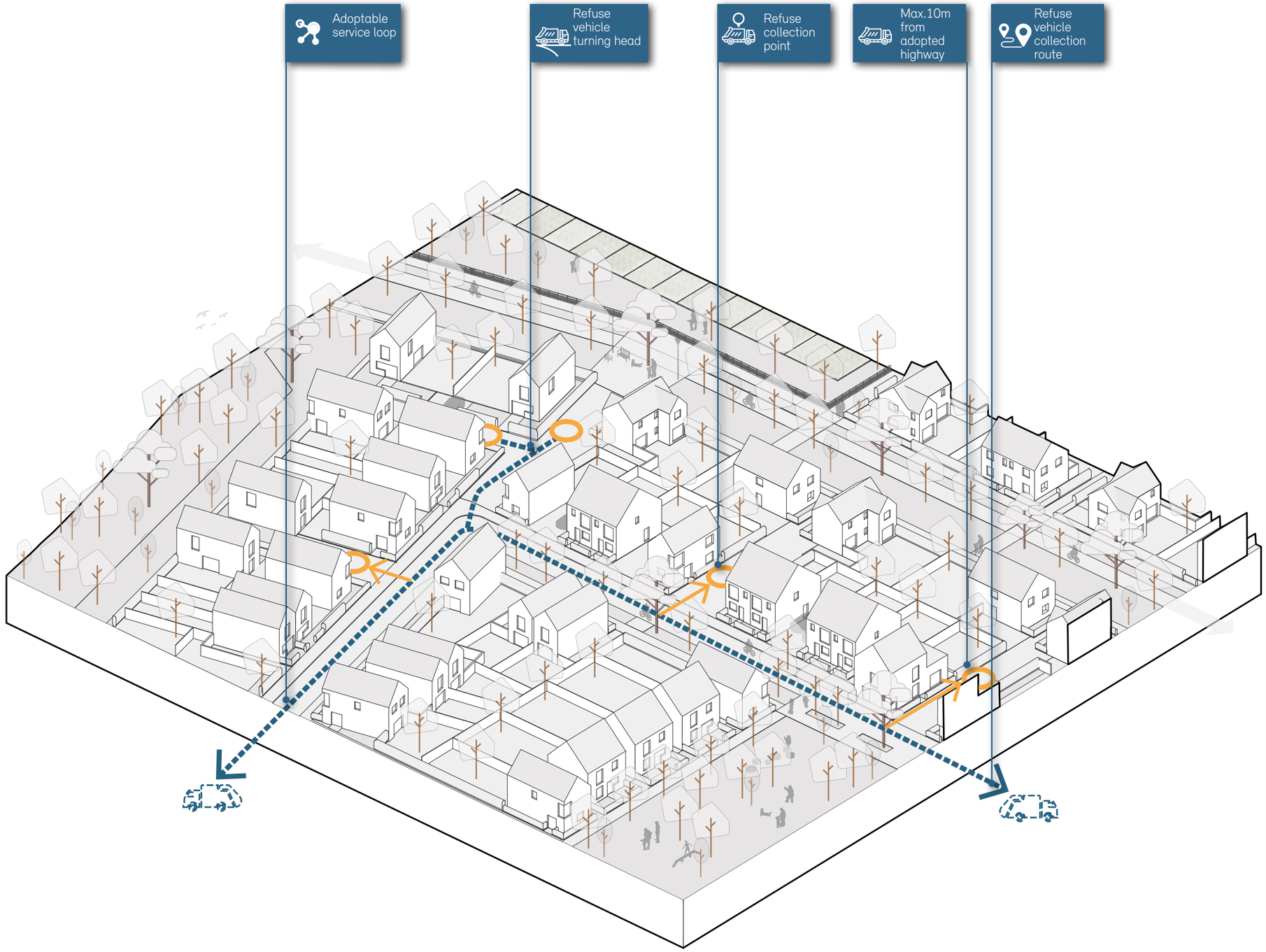
All homes and non-residential buildings must be provided with adequate internal and external storage for waste and recycling. Provision for houses is via wheelie bins. Apartments will use 'Eurobins' located within communal bin stores.

Any collection points that are required should be sized to accommodate the likely waste requirements of the homes they serve, and reflect the separate collection of different waste streams. For collection points this will typically mean providing space for 2 bins for each home on the day of collection. Collection points should be integrated into the street scene and avoid intrusion to neighbouring homes.

All proposals must comply with the local authority requirements for waste and recycling storage and collection. This is currently the RECAP Waste Management Design Guide SPD (Cambridgeshire County Council and Peterborough City Council 2012 or successor document). This guidance is expected to be updated, and design teams should engage with the waste collection team at an early design stage.

Alternative approaches – e.g. Iceberg bin waste storage and collection

Iceberg bins (underground communal bin storage) have recently begun to be used in Cambridge, for example at the University's Eddington development. These systems have the advantage of removing unsightly and bulky bins from streets and homes, and may be used for both flats and houses. The underlying principles for waste collection set out in the Code will allow for either system to be utilised. However, currently the Local Highway Authority will not permit underground communal bin storage in adopted public highway.



Waste vehicle collection route

All refuse and recycling collections must be able to be made from the adoptable public street network. Neighbourhood street designs should incorporate small adoptable service loops off the primary infrastructure, as illustrated on the Framework Diagram opposite.

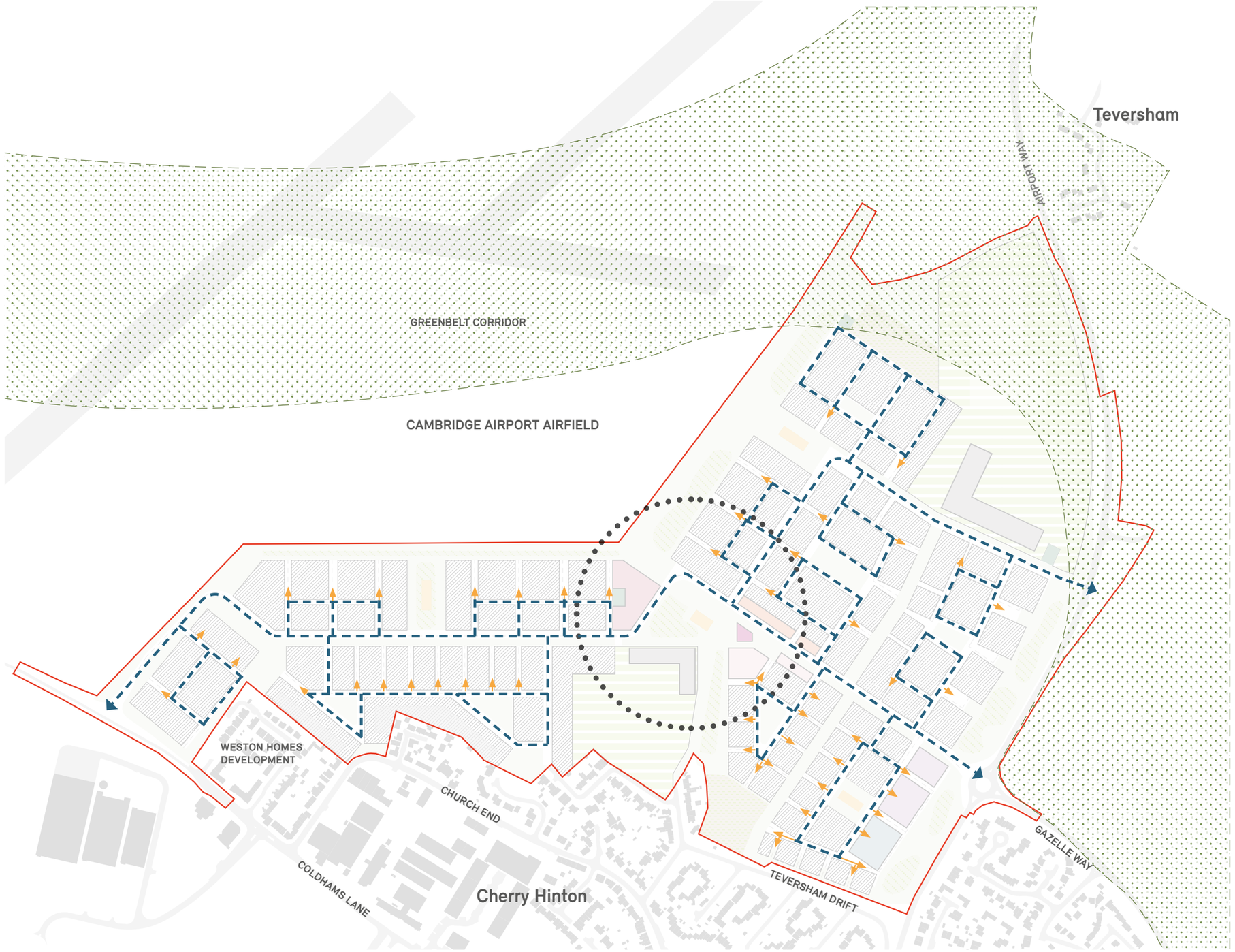
The design of these loops must promote low vehicle speeds, walking, and cycling and can incorporate shared surfaces. The design and location of access road junctions must minimise disruption and crossing points with cycling infrastructure.

The refuse collection route should allow vehicles to continue mainly in a forward direction and avoid vehicles reversing, except where a turning head is specifically incorporated into the street scene for this purpose.

Community recycling

A site-wide community recycling facility should be required for every 800th dwelling in accordance with the guidance set out in RECAP Waste Management Design Guide SPD (2012). Further consultation will be needed with the Councils 3C Shared Waste team on its delivery and implementation. Where such a facility is needed it must be accessed via the adoptable highway and should be discreetly but conveniently located.

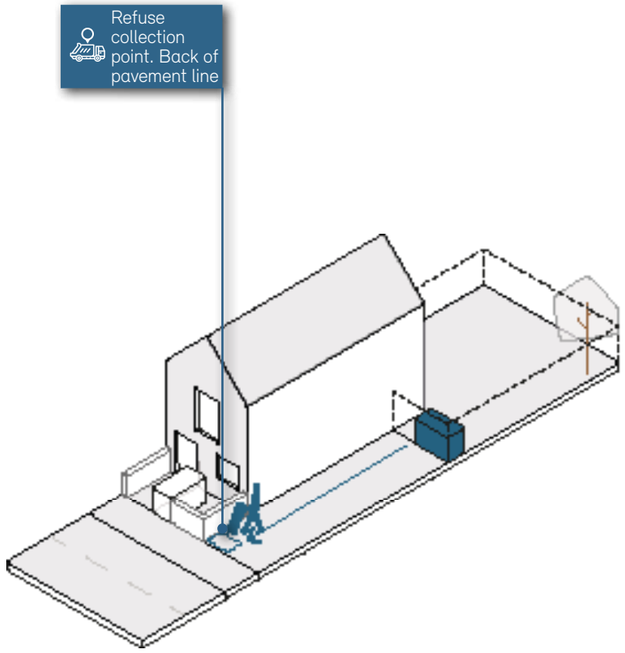
Further guidance on providing adoptable street designs can be found in the Public Spaces section.



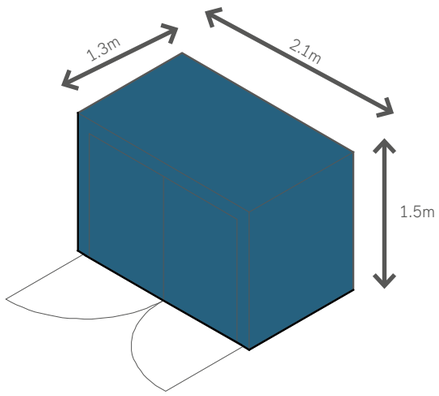
Illustrative framework diagram showing strategy for service loops and waste collection

Examples of ways to arrange refuse storage and collection points.

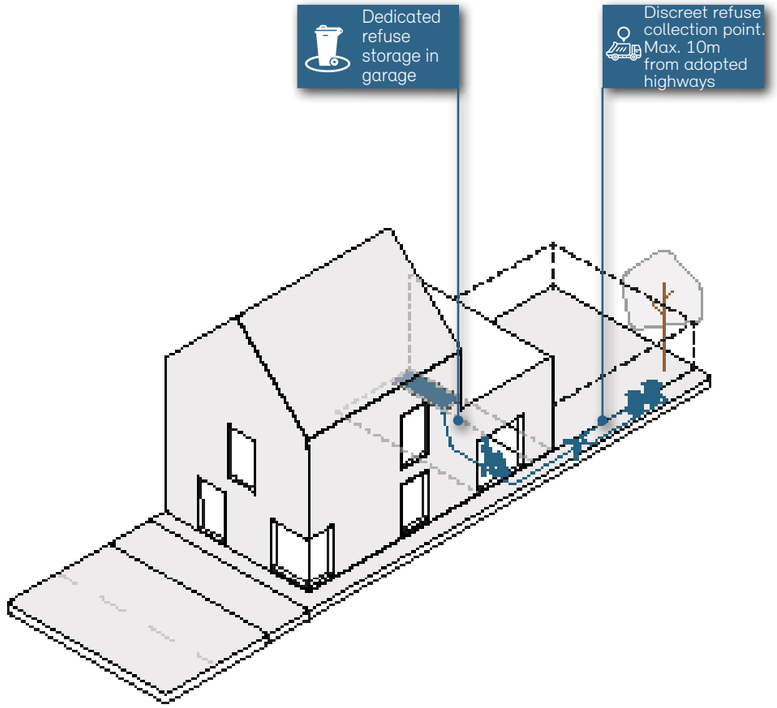
- Refuse storage for flats should not be associated with cycle stores
- Refuse for houses should be from back of pavement line
- Where refuse collection distances would otherwise exceed 10m from adopted highways, discreet collection points can be used.



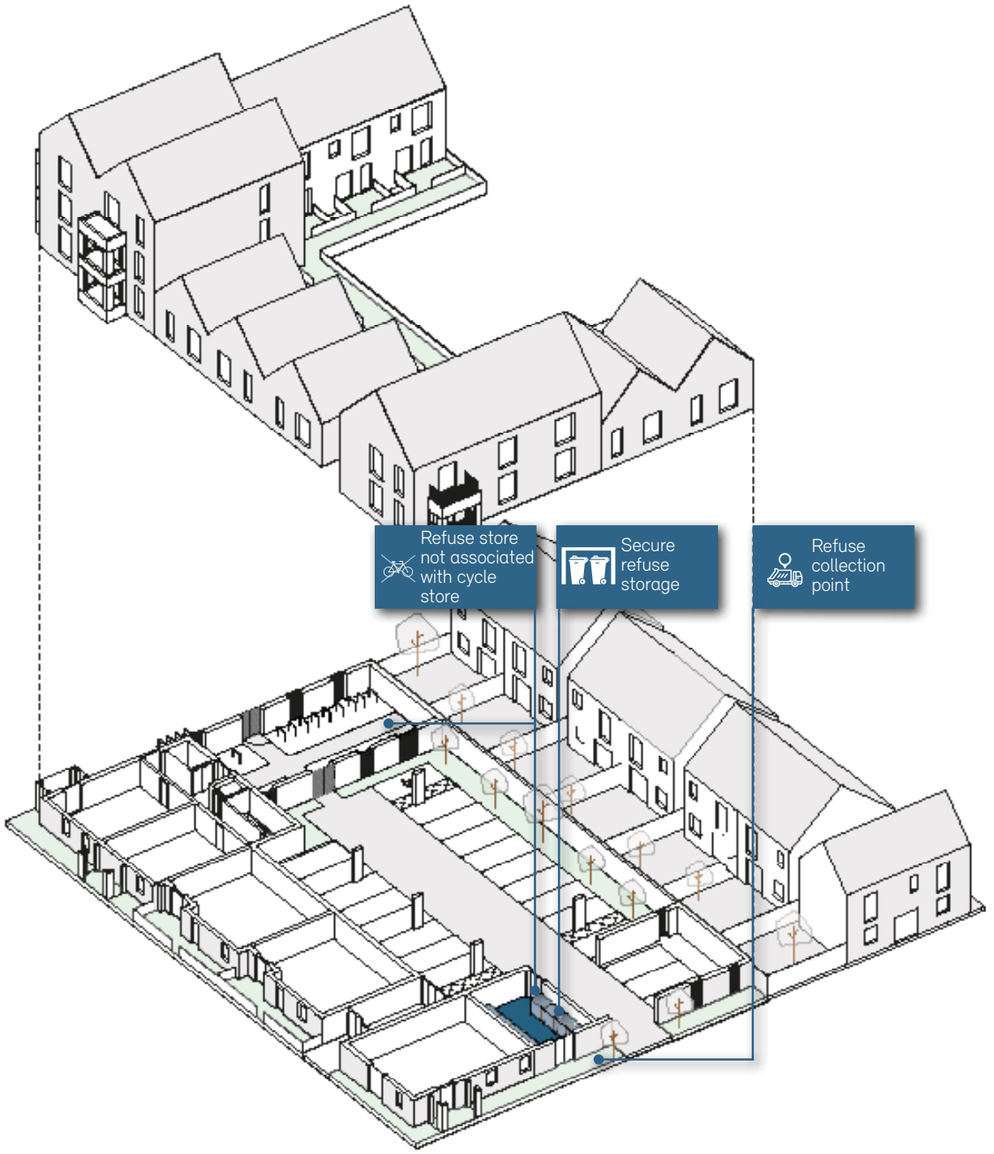
Secure refuse store behind on plot parking
Must not rise above a side wall next to the public realm



Typical bin store dimensions for a house



Integrated refuse storage



Integrated bin store in an apartment building with ventilated screens

3 Nature

Nature must be incorporated into each aspect of the design, with an approach described as "Living Infrastructure". This must create an integrated network of natural habitats, sustainable drainage, and tree planting. These are places that can deliver an increased quality of life and improved microclimate.

The nature framework diagram (right) illustrates the key nature considerations and connections that must be provided across the site. This element of the design code is broken into four subsections as follows:

1. Urban greening
The urban greening framework must deliver a variety of high quality open spaces and green corridors across the site area, incorporating zoning for biodiversity habitats.

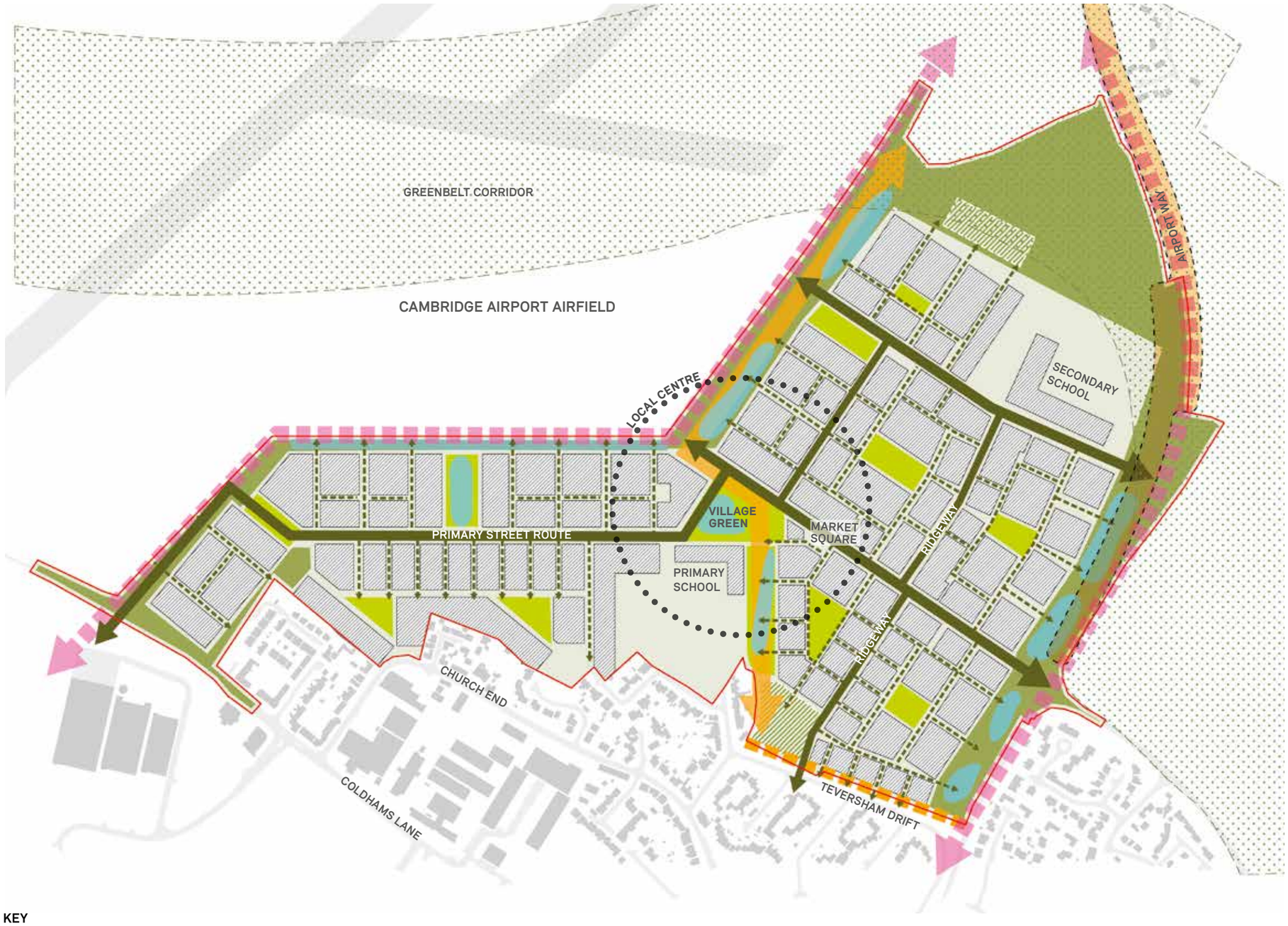
2. Water responsive
The water responsive framework, connected across the site, must ensure that the blue infrastructure integrates with the landscape and helps mitigate the impact of climate change.

3. Nature conservation
The comprehensive nature conservation framework must enhance existing landscape and ecological key features on the site.

4. Living landscapes
The outline permission sets out a requirement for a net gain in biodiversity.

The comprehensive living landscapes framework must help deliver biodiversity and nature conservation supporting wildlife.

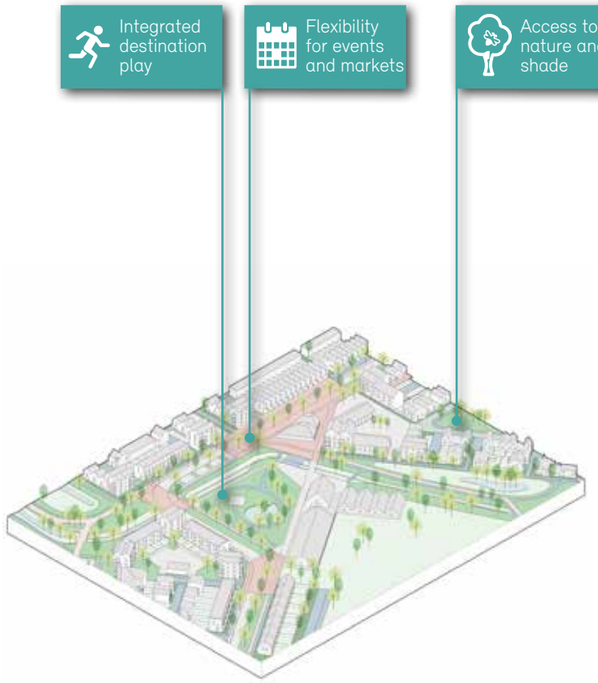
Building design should facilitate the integration of nature in the form of green and brown roofs, bee/swift bricks/ bat bricks as well as design of boundaries with gaps for hedgehogs.



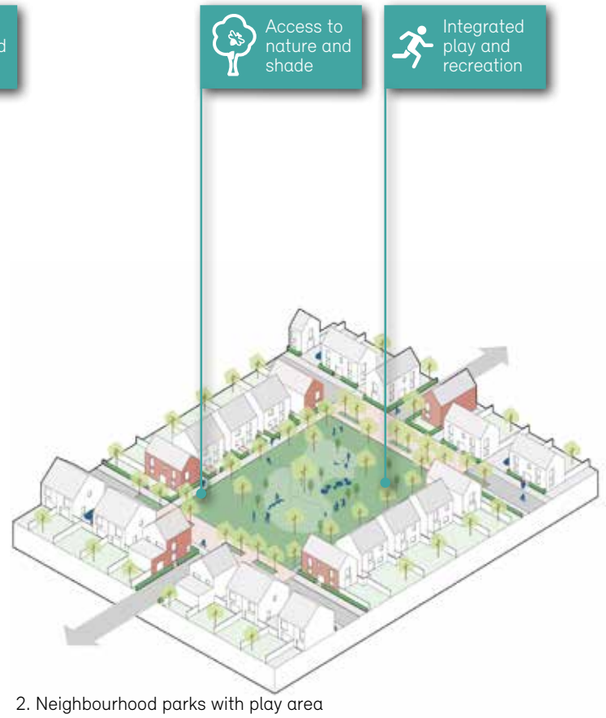
Urban greening framework

A thorough and widespread urban greening framework will deliver a variety of high quality open spaces and green corridors across the site area.

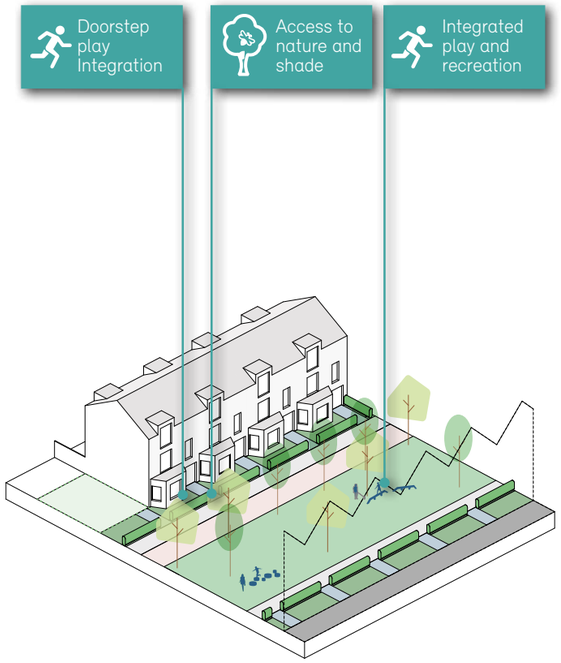
- Primary/secondary streets including The Ridgeway must act as green corridors, creating and supporting habitats and bring people closer to nature. All movement corridors must be designed to connect leisure, recreation and community facilities, as well as parks, open spaces, and allotments. Further guidance on urban greening for streets is in the Public Spaces section of the Code
- Tertiary streets and spaces must connect to the green corridors and make connections to the green networks surrounding the site
- Perimeter parklands must frame the edges of the site and create spaces for nature and people including footways and cycleways with rest points, exercise points and play integrated within them
- The green infrastructure must deliver a variety of high quality open spaces and wildlife habitats which will encourage sustainable lifestyles. This can include trim trails, formal and natural play trails, linear parks, pocket parks, walking and jogging routes, outdoor gyms and allotments
- The tree canopy in particular will need careful consideration to achieve a mature level of tree canopy cover within the development that complies with the strictures of airport safeguarding, yet can allow for further maturity or additional planting upon the relocation of the airport. Further guidance on airport safeguarding is included in the Lifespan section of the Code.



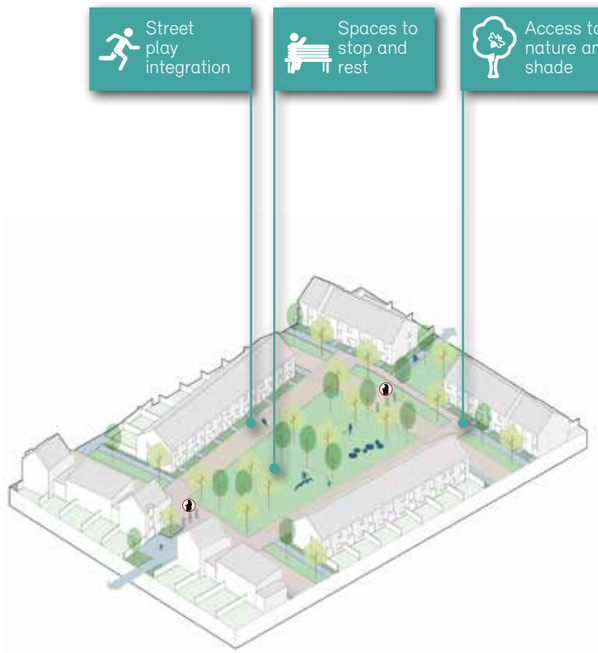
1. Village green



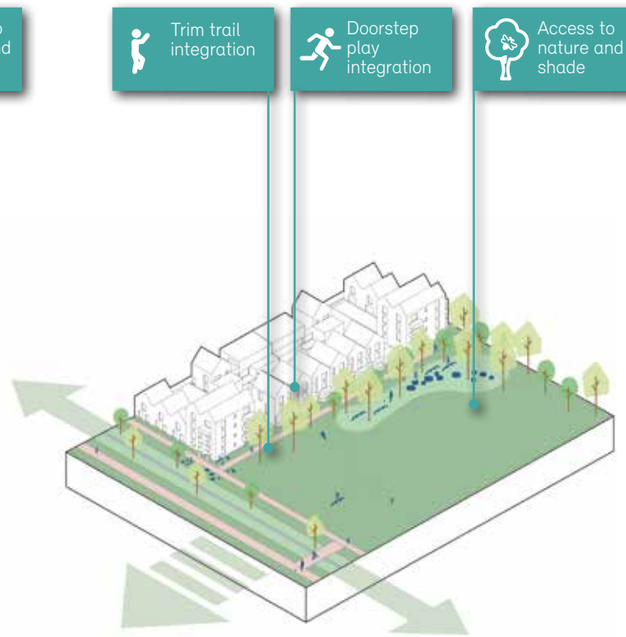
2. Neighbourhood parks with play area



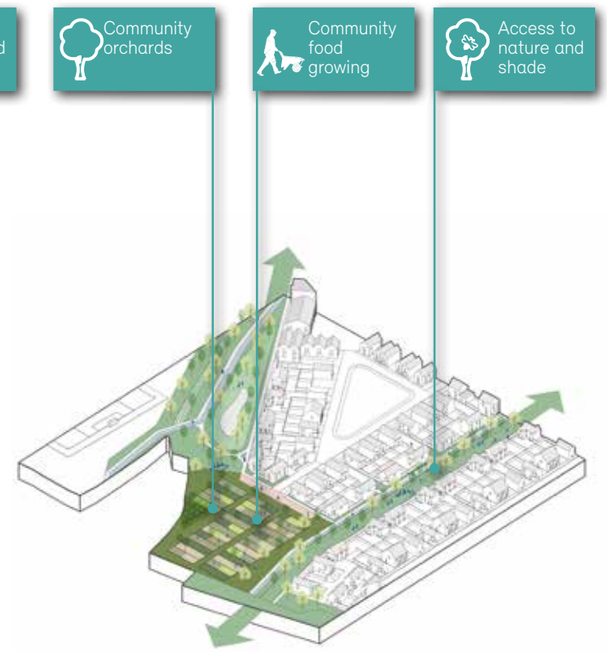
3. Greenways



4. Neighbourhood park



5. Parkland edges



6. Allotments

Water responsive framework

A site-wide water responsive framework of blue infrastructure (SuDS) must control both quantity and quality of surface water runoff throughout the site. This is to help mitigate the impact of climate change within the site and surroundings and integrate with existing water and drainage courses.

The site is traversed by an existing award drain. The route of this drain adjusted by the masterplan. Designs must enhance this feature, integrating it into a naturally planted landscape which improves the biodiversity of the drain and supports the habitat requirements of water voles.

The blue infrastructure must maintain and enhance biodiversity and provide amenity and benefit to all, delivering a variety of high quality spaces for enjoyment of nature.

SuDS features must be designed to have a natural, organic form and positively contribute to green infrastructure and not appear heavily engineered.

On plot SuDS features should be encouraged within the development. On plot SuDS features are beneficial to developments as they can manage the first 5mm of rainfall, provide additional stages of surface water treatment, and act as additional attenuation volume throughout the development.

KEY

- Application Boundary
- Attenuation Basins
- Swales
- Award Drain

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SuDS strategy

- The site wide SuDS Strategy must be considered early in the design phase of all public realm spaces to ensure that the development is resilient to flooding and does not contribute negatively to the surrounding locality and should be in line with the Cambridge City Sustainable Urban Drainage Design Guide.
- SuDS features must not appear as heavily engineered objects within a naturalistic landscape but must respond to the design aesthetic of the space
- SuDS designs must respect and work with the existing topography of the site
- Crossings of SuDS features must be well designed and avoid heavily engineered headwall and outfall features
- Maintenance needs for the features must be embedded as part of the design.

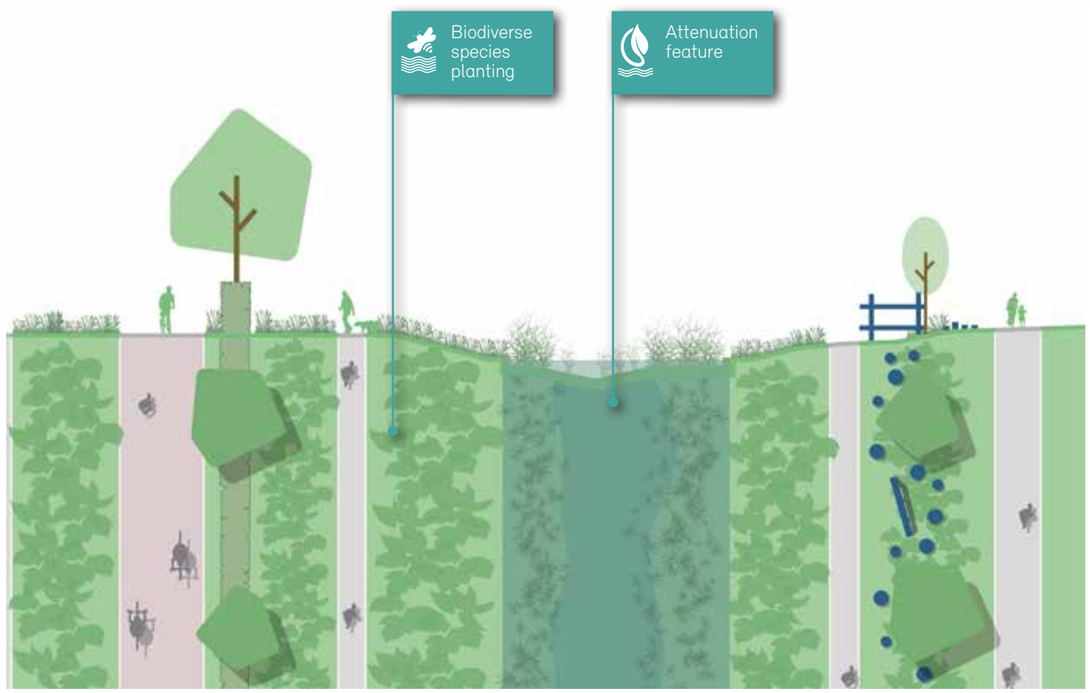
Multi-functional spaces

- Spaces which serve multiple functions, such as attenuation and play must be well integrated into the landscape
- Attenuation basins should enhance biodiversity and be safe but without the need for additional fencing or barriers
- Attenuation basins must allow for 1 in 100 year storm events plus 40% allowance for climate change meaning they will be primarily dry features and must not hold water beyond these events and drain away quickly
- Consideration of post event recovery and/or repair must be factored into the designs, particularly where play features may be out of use for a short period to allow for ground conditions to dry out and growth of planting or grasses to resume.

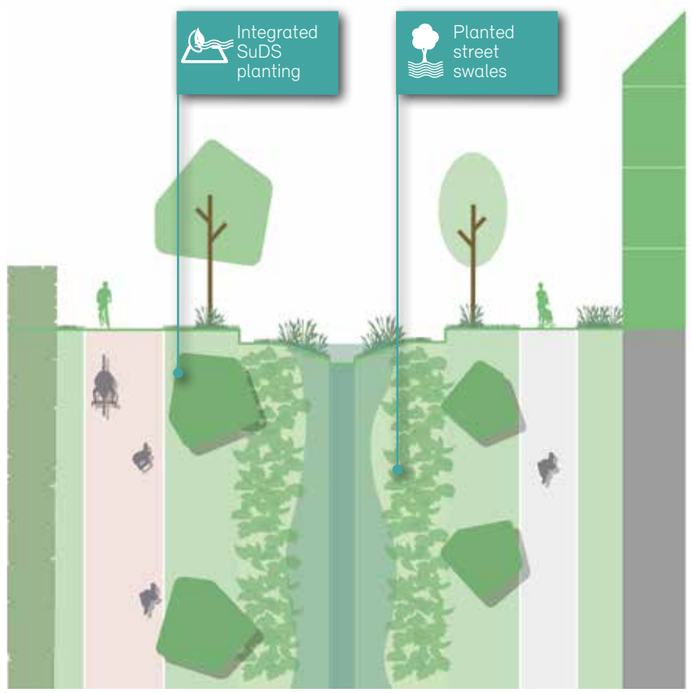
Streets and planted swales

- Swales to collect Highways drainage must be provided on the Primary and Secondary streets
- The gradient of street Swales must balance a number of factors including the need to maximise activity zones as shown in the primary infrastructure cross sections, functional factors related to invert levels, topography and safety
- Swales should be designed to improve water quality of run-off
- Swales must be planted to enhance biodiversity within the site and minimise maintenance burden.

1. SuDS in the public realm - design to avoid guarding



2. Open space and attenuation

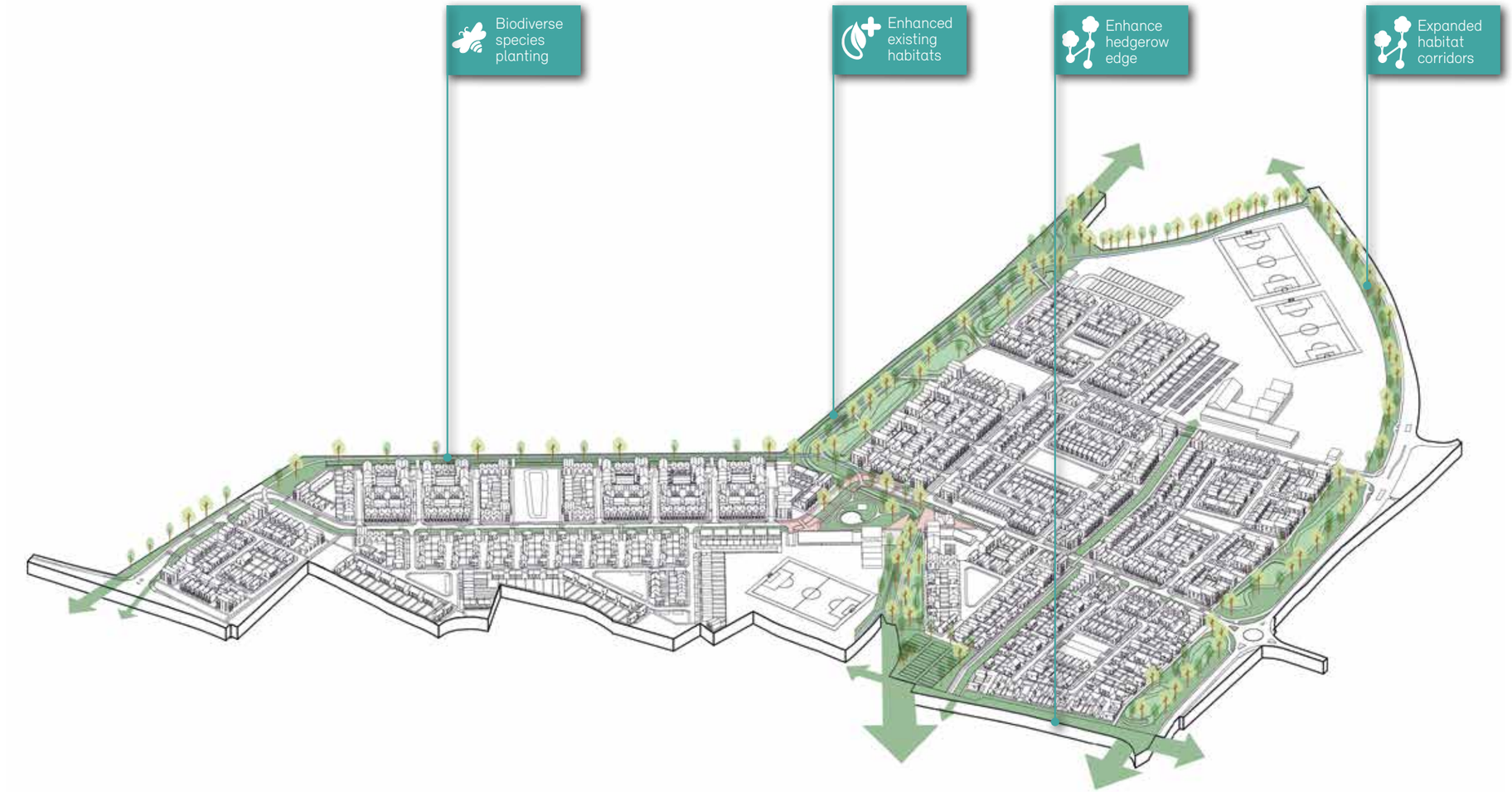


3. Streets and planted swales with street tree planting

Biodiversity enhancement

To achieve a comprehensive nature conservation framework that enhances the key existing landscape and ecological features on site, the following requirements must be met:

- Key non-statutory sites must be enhanced and conserved. These include the Airport Way Road Side Verge (RSV), the Teversham Protected Roadside Verge (PRV) and the Teversham Drift Hedgerow City Wildlife Site (CWS)
- Key habitat enhancements must be achieved on site in accordance with the recently adopted Cambridge City Council Biodiversity Strategy (2022) and Greater Cambridge Shared Planning Service Biodiversity SPD (2021).
- Additional ecological surveys must be completed as part of each Reserved Matters application to ensure the right enhancements are being achieved in the right locations
- Designs which support an increase in biodiversity must aid in enhancing and conserving habitats for a range of protected and valued species. In the design, planning, and management of the greenspaces, a particular focus for the enhancement actions should be for water voles and their habitat along the award drain, Pipistrelle bat foraging corridors and nesting habitats for the Song Thrush. In addition, designs which enhance the incidence of calcareous grasslands, floodplain grassland, hedgerows and streams are encouraged. Refer to the recently adopted Cambridge City Council Biodiversity Strategy (2022) and Greater Cambridge Shared Planning Service Biodiversity SPD (2021) for additional information on local strategies
- Consideration of all required habitats elements within the built form and landscape (nesting / feeding / water / roosting etc) should be explored. The Outline Approval does not establish a fixed figure for biodiversity net gain. However all designs will aim to provide biodiversity enhancement.
- As part of the Outline Approval discussions when it was accepted a shortfall may occur on site in Biodiversity Net Gain (BNG). There is a component of BNG that will be delivered off-site by the Wildlife Trust at their site at Fulbourn Fen.



Watervole nesting opportunity

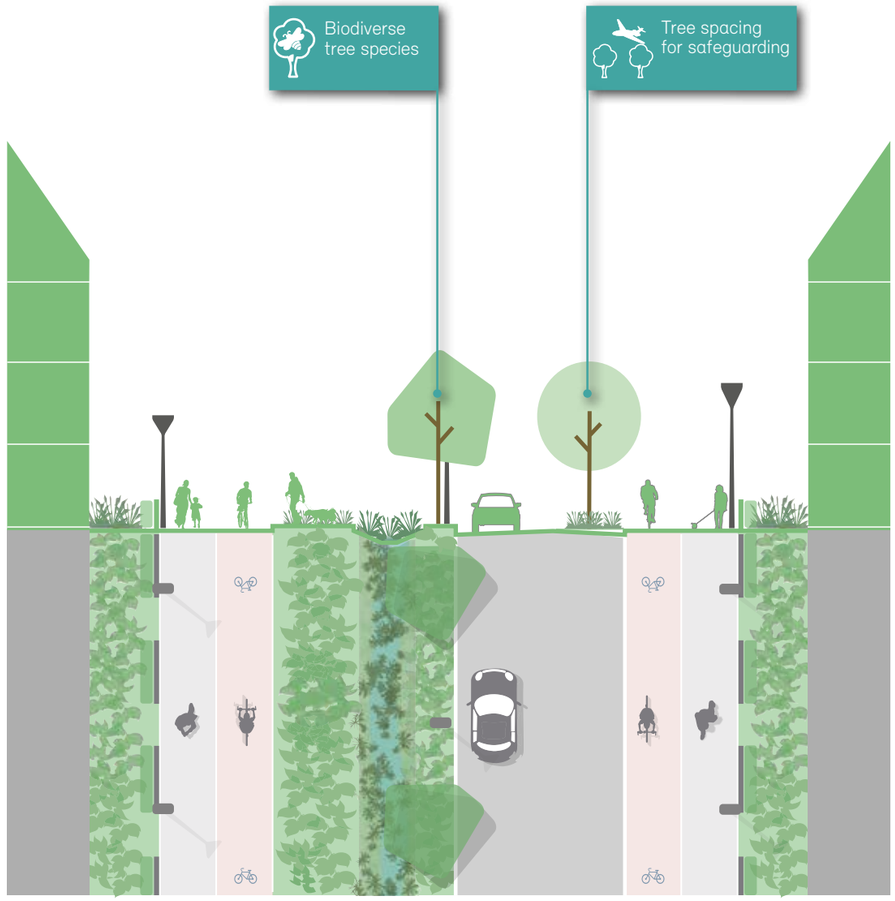
Integrated swift brick example

Bug hotel example

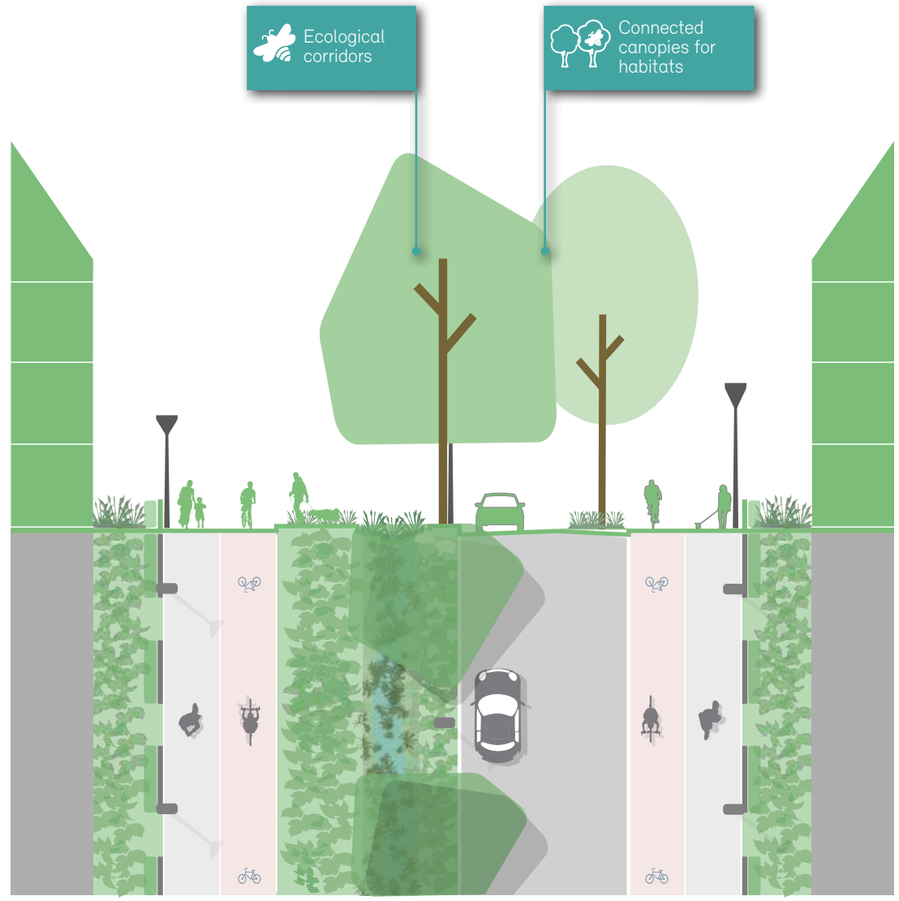
Living landscapes

To achieve a living landscape framework which helps deliver biodiversity net gain and supports wildlife through habitat creation and conservation and access to nature for all, the following requirements must be met:

- Proposals must incorporate existing landscape features enhanced and integrated within new designs which provide a variety of high-quality open spaces which integrate, nature, play, recreation, movement, drainage and amenity.
- Creation of a transitional landscaped edge to the development which responds to the needs and context of each edge condition
- Creation of a tree canopy which responds to the current limitations of operational safety for the adjacent airport yet provides ample greening of streets, parks and other landscape areas
- Street tree spacing along the Primary street must be around 15-18 meters apart allowing for tree canopies to eventually knit together at maturity
- Application of a long term management plan which highlights the need to allow intensive management during the operational life of the airport and which can reduce in intensity should the airport relocate in the future
- Support sustainable and active lifestyles for residents and visitors
- Provision of a diverse planting palette which is resilient to climate change, suitable to the character and context of the edge of the City of Cambridge and supports the goals of enhancement, conservation and creation of wildlife habitats.
- Appropriate ecological sensitive lighting should be incorporated along boundaries of designated wildlife areas and newly created green spaces.



1. Managed tree canopies during airport ongoing operations



2. Tree canopies allowed to connect following cease of airport operations

Planting palette

- The Planting palette must support the creation of a biodiverse landscape
- Both native and non-native species of trees, hedges and shrubs and herbaceous plants should be used in order to achieve resilience and wildlife value within the landscape
- An area of chalk grassland/chalky subsoil exists on most of the site and offers a unique opportunity to use a wider range of species which have different nutrient and soil demands benefiting biodiversity while reducing maintenance needs.
- Recommendations within ecology assessments should be followed to enhance and increase habitat for target species such as water voles
- Requirements for the selection and management of trees, shrubs, hedges and grasslands must consider the requirements of airport safety and safeguarding.

Trees

- The approach to trees should follow the elements above
- Both native and non-native trees should be used to enhance the developments ability to deliver a biodiverse, resilient landscape
- A hierarchy of trees for use on Primary, secondary, tertiary and other movement corridors should be included as part of the Landscape Strategy for each Reserved Matters application.

Wetlands, water courses and SuDS features

- All elements of the site wide SuDS strategy are to comply with airport safeguarding requirements for as long as the airport is in operation
- Most features will not contain standing water and their planting and maintenance regimes must reflect this
- Some water features which do hold standing water will be densely planted to discourage flocking water fowl while the airport is in operations
- SuDS basins to do contain permanent water will only be located within the "Lower wildlife safeguarding priority area" as defined in the outline planning consent Design and Access Statement
- Management of the ponds will be monitored and altered to be more attractive to wild life should the airport relocate.

Trees

Alnus Glutinosa (Common Alder)

Acer Platanoides "Cleveland" (Norway maple)

Juglans Regia (Common Walnut)

Tilia X Euchlora (Caucasian Lime)

Shrubs and Hedges

Acer Campestre (Field Maple)

Corylus Avellana (Hazel)

Crataegus Monogyna (Hawthorn)

Viburnam Lantana (Wayfaring Tree)

Marginal Aquatics

Calthapalustris (Marsh Marigold)

Carex Pendula (Pendulous Sedge)

Iris Pseudacorus (Yellow Flag Iris)

Mentha Aquatica (Water Mint)

Plot Planting

Choisya "Aztec Peal" (Mexican Orange Blossom)

Hebe "Franciscana Variegata" (Variegated Shrubby Veronica)

Hypericum "Hidcote" (St John's Wort)

Verbena Bonariensis (Argentinian Vervain)

Urban greening adding definition to a public place
Granary Square, Kings Cross **Townshend Landscape Architects and Applied Landscape Design**

4 Public Spaces

The heart of our approach to public space will be good street design that creates space for people and nature, rather than just roads. Neighbourhood Parks will provide a leafy heart to each small neighbourhood, creating natural places to meet with the neighbours and play a short walk from every home – the largest of which will be the new village green.

The Public Spaces framework diagram opposite shows the public spaces and connections that must be provided in order to deliver the network of public spaces that are required by the code. Required outcomes include:

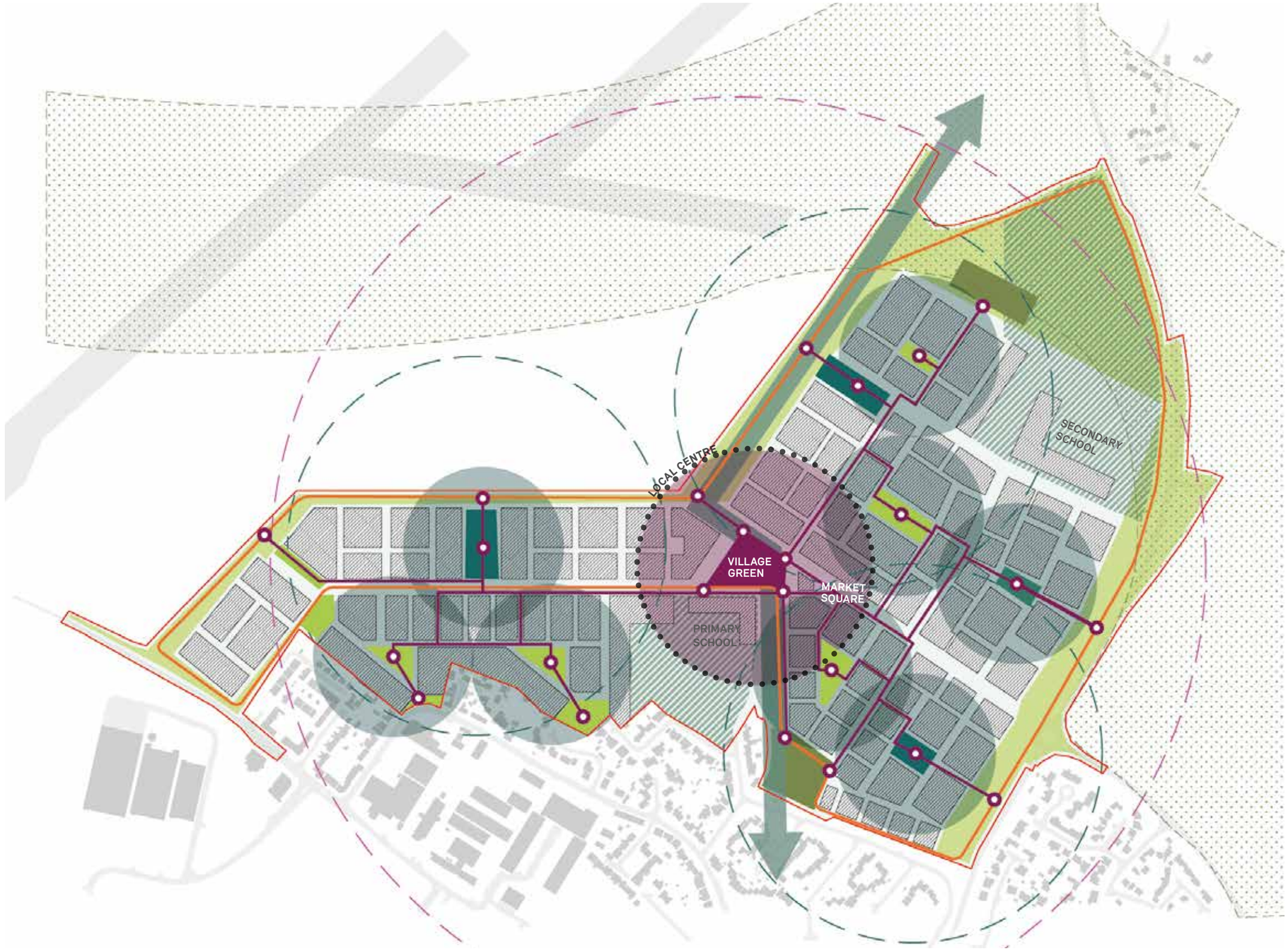
1. Public space typologies including streets
This should create a linked series of public spaces which create a varied character for flexible use.

2. Play Strategy
Create a playable public realm which is socially, physically and emotionally engaging.

3. Cultural sociability
This should ensure the integration of the spaces for local people and community cohesion.

4. Active lifestyles
To ensure opportunities for play and recreation to suit all ages and disabled people are integrated with the streets and public spaces.

5. Coherent character of materials and elements
To ensure public spaces are brought together with consistent, considered, design.



Public space typologies

Linked public space network

A variety of public spaces must connect across the site, creating a linked network of different, flexible and cohesive spaces to support public use and cultural sociability.

Public spaces must include combinations of activities that help bring people together including play, social meeting, resting, and being in nature.

Public spaces must safely combine necessary movement routes with social activities without having to resort to fenced enclosures.

Public space typologies

There is a network of public spaces located across the site. Apart from streets, these are broken down into three main categories as follows:

Local centre/village green

The Village Green must act as a focal point to the whole development and provide key facilities for activities and sitewide interaction. The Village Green must help support and be used in conjunction with the other community infrastructure surrounding it.

Neighbourhood parks

Neighbourhood parks must create a leafy heart to each small neighbourhood. They must provide a place to meet with the neighbours, play, and to be in nature, a short walk from every home.

Other small green pocket parks and squares should be considered where opportunities arise, e.g. where they can be combined with car parking or to provide other focal points. While potentially smaller, these should follow the sociable, play, and nature, principles of neighbourhood parks.

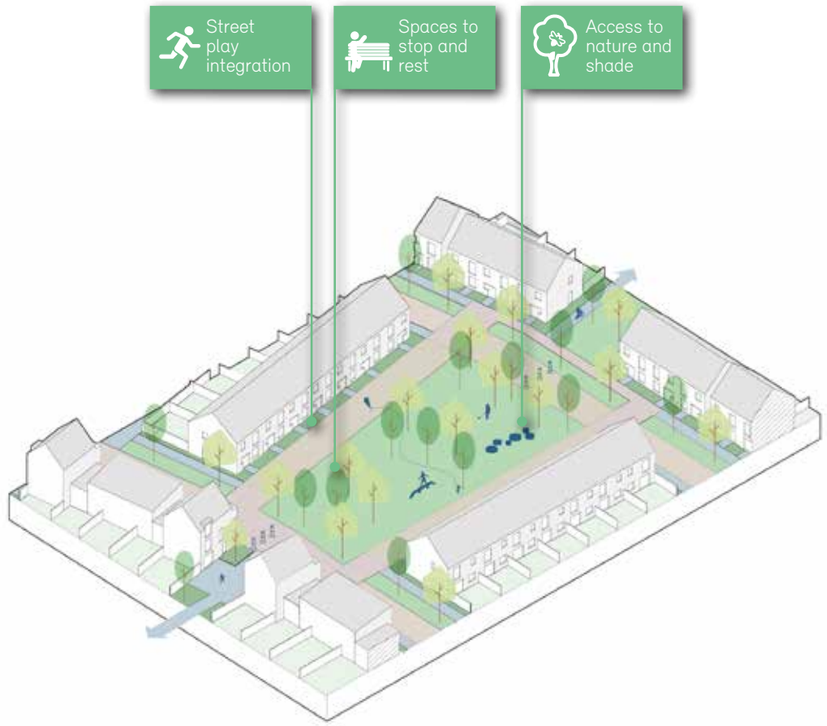
Parkland edges

Parkland edges, forming the east and west perimeter of the site, must include walks, and places to rest, enjoy views, and interact with nature.

To mitigate traffic noise adjacent to Cherry Hinton Road, acoustic barriers should be integrated into parts of the landscape to help create quieter areas. These can be co-located with path meeting points, rest and activity spots.

1. Local centre/village green

2. Neighbourhood parks with play area



3. Neighbourhood parks

4. Parkland edges

Streets

The Code sets out a hierarchy of streets, which must be used to contribute to the distinctive character of the development. Almost all streets are to be designed to adoptable standards.

The street hierarchy framework opposite sets out a network of interconnected primary, secondary and tertiary streets that must be created.

The location of the primary and secondary routes is fixed through the Outline Application.

The tertiary streets include small looped routes for service and other powered vehicles, accessed from the main infrastructure. The location of the tertiary streets is not fixed, but their design should follow the principles set out in the framework plan.

The network of tertiary streets aims to create low traffic neighbourhoods, where social interaction and play can flourish. Reserved matters designs, at the outset, should seek to restrict the movement of powered vehicles between neighbourhoods, through the use of modal filters. These breakpoints must maintain permeability for pedestrians/cyclists. The exact location of modal filters should be established through detailed masterplanning.

Street designs must include the planting, footways, cycle routes, and threshold zones as illustrated within the Code.

Junctions are a key part of delivering Living Infrastructure and must include focal points for a mix of social activities, nature and doorstep play. Further guidance on the adoption strategy for streets and other public spaces can be found within the Lifespan section of the Code.

The way buildings frame the streets must follow the guidance set out in the Built Form and Identity sections of the code.

Integrated space for rest along key walking routes to be provided.

KEY

- Site Boundary
- Primary Street
- Secondary Street
- Tertiary Streets (low speed - pedestrian/cycling priority streets)
- Ridgeway (car-free Street)
- Walking and Cycling
- Existing Streets (Site Perimeter)

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Framework masterplan showing the hierarchy of streets. Primary and Secondary routes are fixed. The tertiary routes are illustrative.

Street Typologies

Streets of all classifications must encourage use of streets as social spaces. Streets are space for people, nature, and active lifestyles, rather than just roads.

Minimum width for entire pedestrian network (accounts for footways and footpaths) must be 2m if to be adopted unless it can be justified otherwise.

Primary street

The primary street will form the backbone of the development, providing east-west connections between Coldhams Lane and Cherry Hinton Road. The primary street must be a distinctive urban space that combines infrastructure for nature, SuDS, walking, cycling and public transport alongside vehicle traffic.

Below ground infrastructure must be carefully co-ordinated to avoid clashing with, or needlessly restricting, tree planting. This is a particular consideration for the gas main diversion, which requires 6m easements for tree planting.

The primary street must be designed to be adopted. It must feature a deep, planted verge which includes semi-mature, large tree planting, natural habitat and social spaces. This verge is to be adopted by Cambridge City Council.

It must also:

- Accommodate a regular bus service and include locations for bus stops
- Include dedicated cycle routes at least 2m wide
- Have a design speed no faster than 20mph
- Allow for connections to future airport development.

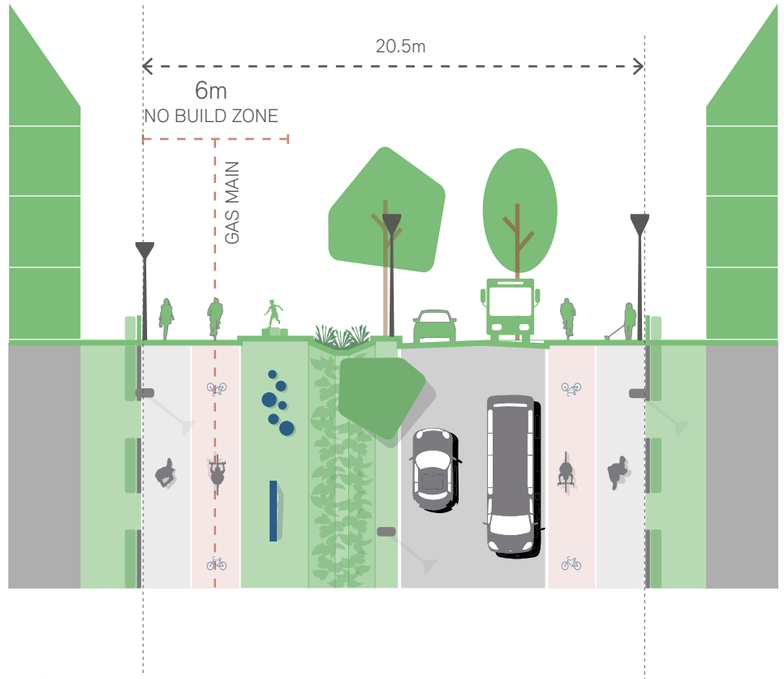
Secondary streets

The secondary street will provide vehicle connections between the new secondary school and the local centre. It must be designed to adoptable standards and must include street trees.

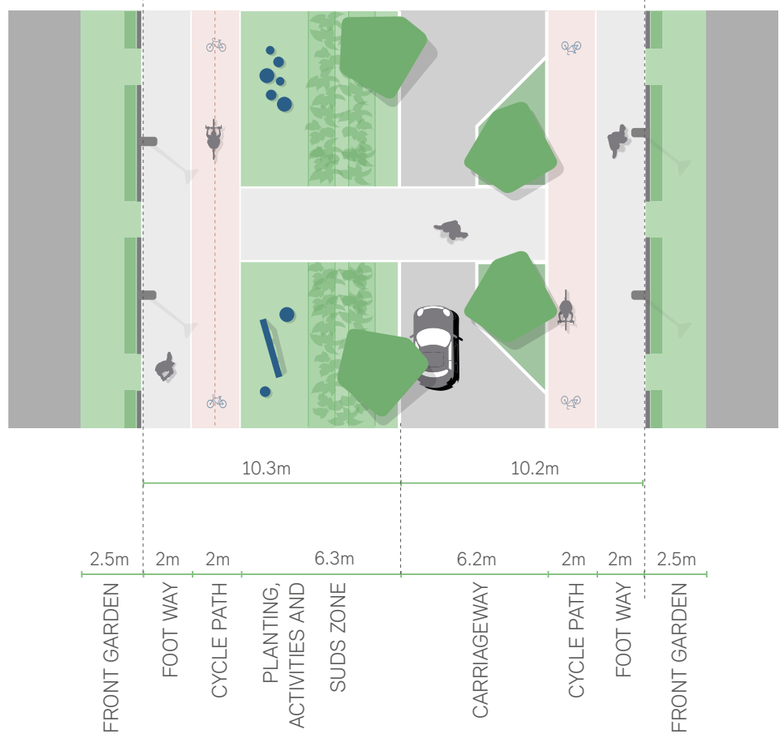
It must also:

- Include dedicated cycle routes at least 2m wide
- Have a design speed no faster than 20mph
- Accommodate possible future bus use
- Allow for connections to future airport development.

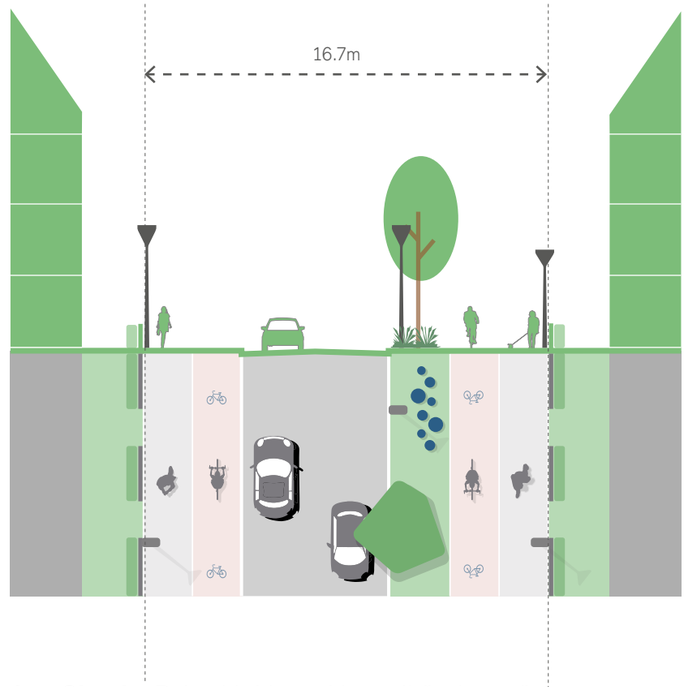
Primary Street - Typical section and plan



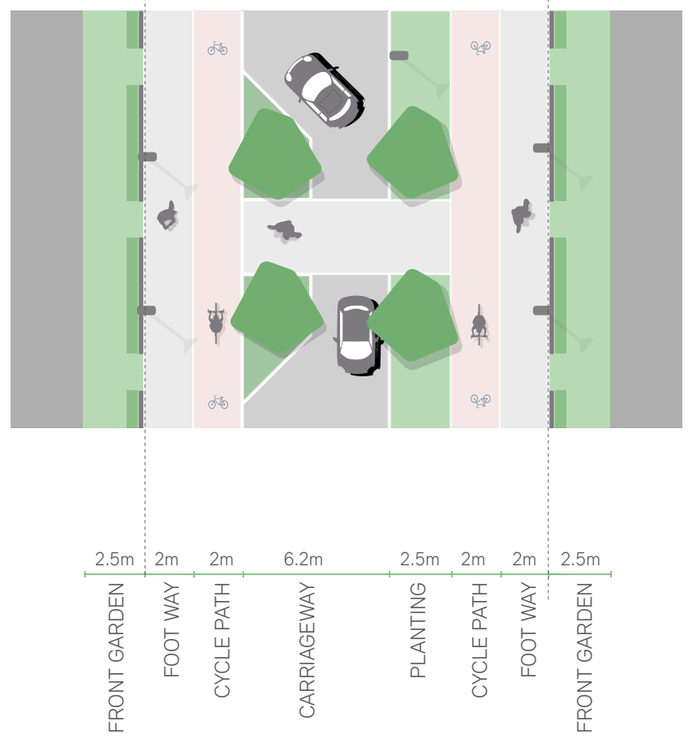
Primary Street - Raised table and tree pit "gateway"



Secondary Street - Typical section and plan



Secondary Street - Raised table and tree pit "gateway"



Tertiary streets

Tertiary streets lead off the primary and secondary streets. These routes should form small service loops that are laid out to minimise vehicle junctions onto the major streets. This is to help reduce disruption to pedestrians, cyclists, and landscape planting.

The carriageway of each service loop must be designed to an adoptable standard for the use of waste collection vehicles.

The design speed of all tertiary streets must no faster than 15mph. The lowest order of tertiary street should be used wherever possible – emphasising the use of shared surfaces and pinch points in the carriageway width.

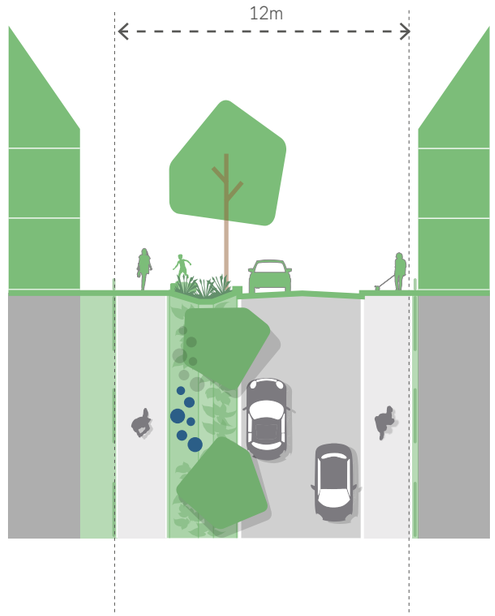
Shared surfaces should be used where streets cross or line neighbourhood parks.

Routes located off the adopted service loop should be designed to be managed and should incorporate visitor parking with charging points, natural planting and SuDS drainage.

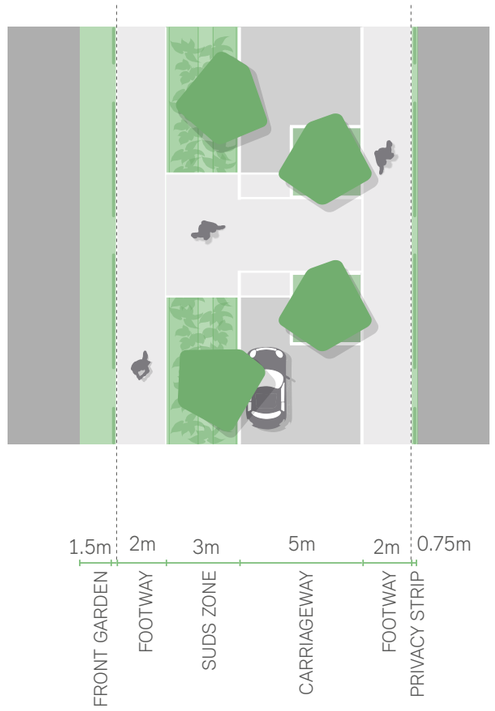
Green and Blue Features

	Primary street	Secondary street	Tertiary street
Street trees	Yes, large species	Yes, medium species	Context driven, medium to garden species
SuDS	City adopted swale	City adopted swale	City/privately managed rain gardens, swales, permeable surfaces

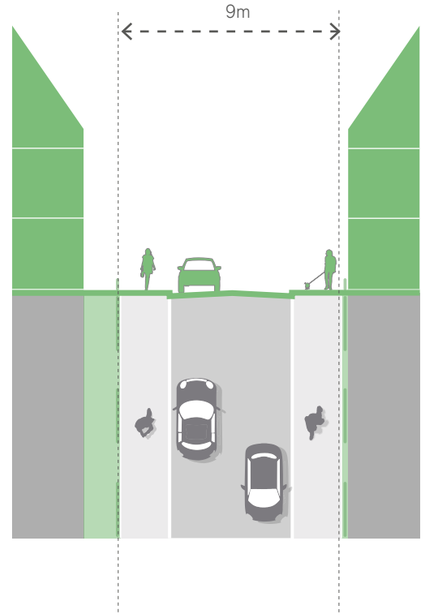
Tertiary Street 1 - Typical section and plan



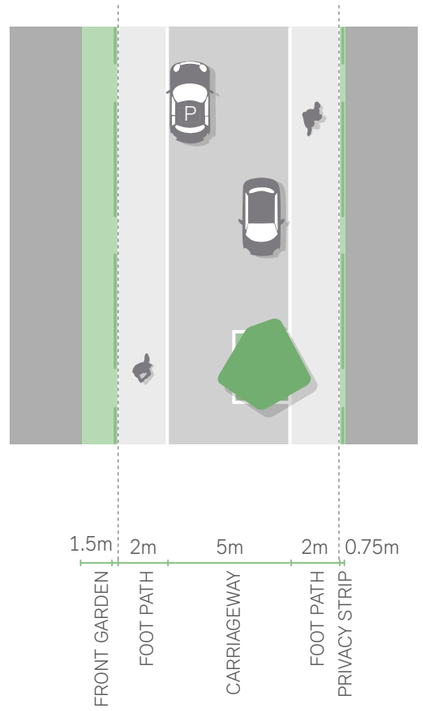
Tertiary Street 1 - Raised table and tree pit



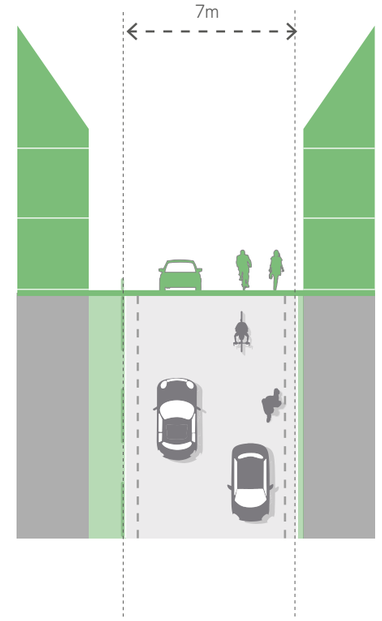
Tertiary Street 2 - Typical section and plan



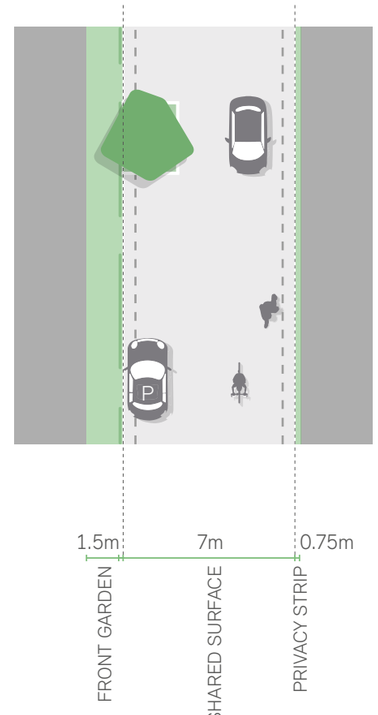
Tertiary Street 2 - Build out tree pits



Tertiary Street 3 - Typical section and plan



Tertiary Street 3 - Build out tree pits



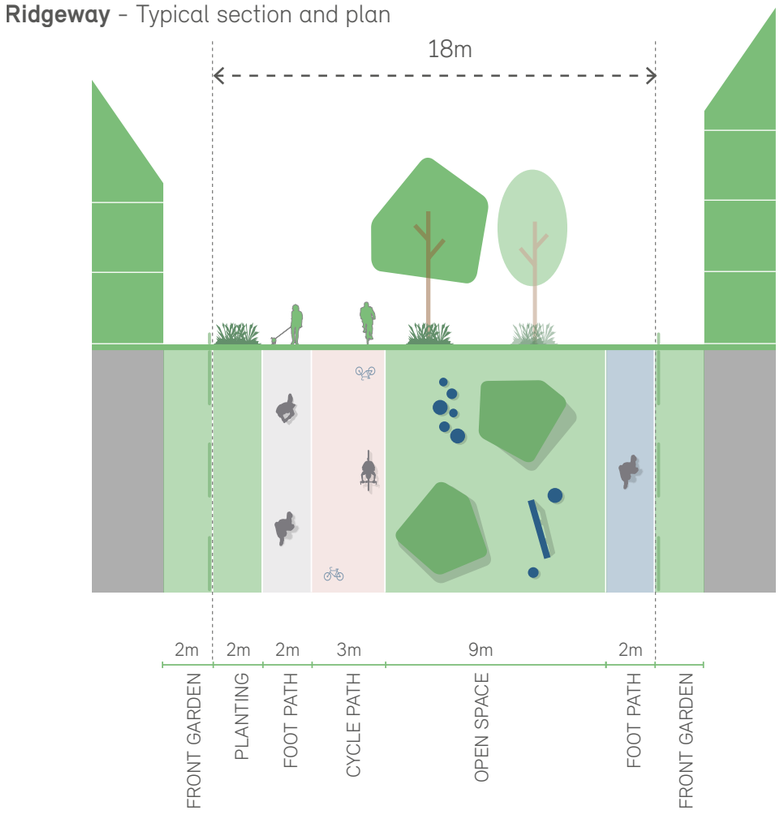
The Ridgeway

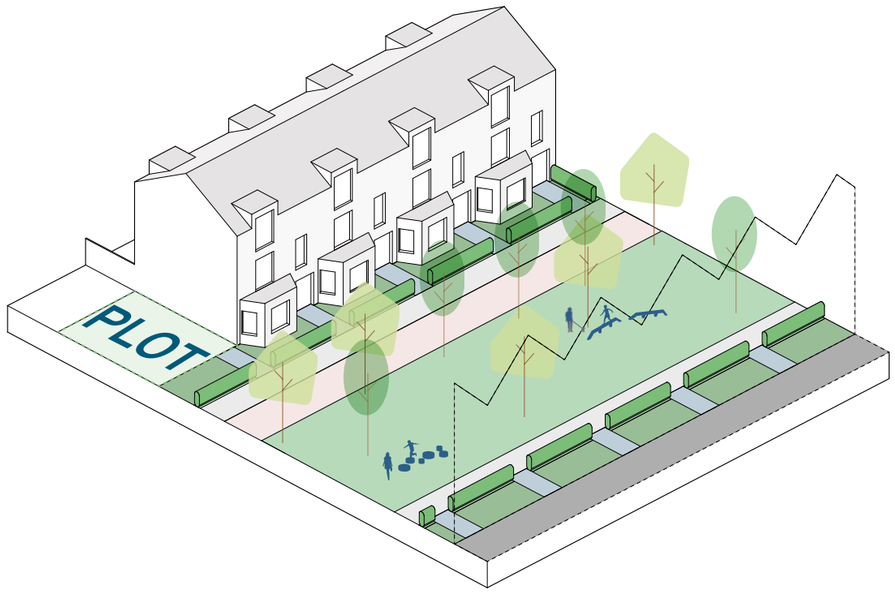
The Ridgeway follows a natural ridgeline in the topography of the site. It is a dramatic green spine, providing a safe, traffic free landscaped street leading from Teversham Drift to the secondary school. It must provide walking and cycling infrastructure set in a landscape of semi-mature tree planting, natural habitats, and social spaces.

The Ridgeway:

- Should be aligned with the nearby church towers of Cherry Hinton and Teversham
- Secondary school entrance must terminate the northern point of The Ridgeway - and the building must act as a focal point
- Must be a traffic-free (motor vehicles), planted, and sociable street.

Ridgeway - Typical section and plan





Abode at Great Kneighton **Proctor Matthews Architects**

The Avenue, Saffron Walden **Pollard Thomas Edwards**

Knights Park, Cambridge **Pollard Thomas Edwards and Alison Brooks Architects**

Street design matrix

A matrix has been prepared setting out the design specifications that should be used for each adopted street typology. The design intent is to create a walkable and low speed environment.

The junction radii and design speeds listed here should be treated as maximums, rather than targets.

Kerb heights should be 125mm to all primary/secondary streets, 25mm high to all tertiary streets,/ motor vehicle accesses and 6mm at pedestrian/cycle crossings.

Centre lines should not be included on any streets.

Shared surface & mews street both require a 0.5m hard paved maintenance strip on both sides if to be adopted.

Homes must be in a 400m walking distance of a bus stop, primary school or defined centre.

The first 5m of a private drive must be 5.5m wide.

The Local Highway Authority will seek to adopt a shared surface serving a maximum of 12 dwellings.

	Primary street	Secondary street	Tertiary street
Speed limit	30	30	30
Design speed	20	20	15
Width	6.2m	6.2m	Varies, refer to sections
Footway/cycleway	2m footways + 2m cycleways both sides	2m footways + 2m cycleways both sides	
Verge	Yes	Yes	
Bus access	Yes	Yes	No
On-street parking	Yes but not delineated	Yes but not delineated	Yes but not delineated
Traffic calming	Yes	Yes	Yes
Utilities	Beneath footway/cycleway	Beneath footway/cycleway	Beneath footway/cycleway
Centre line radii	30m	30m	20m
Street lighting	6m columns	6m columns	5m columns
Junction spacing			
Junction visibility	2.4 x 25m	2.4 x 25m	2.4 x 17m
Junction radii	6m	6m	To suit tracking
Direct vehicular access	No	No	Yes
Kerb height	125mm	125mm	25mm
Centre line	None	None	None
SuDS	Swale	Swale	Mixed
Shared surfaces	None	None	Mixed (serving no more than 12 homes)

Knights Park, Cambridge **Pollard Thomas Edwards and Alison Brooks Architects**

Tree-lined street. Clay Farm, Cambridge

Accordia, Cambridge **Grant Associates and Feilden Clegg Bradley Studios**

Play strategy

The Design Code aims to create a playable public realm which is socially, physically and emotionally engaging.

The formal play strategy for Cherry Hinton North must work on 3 levels:

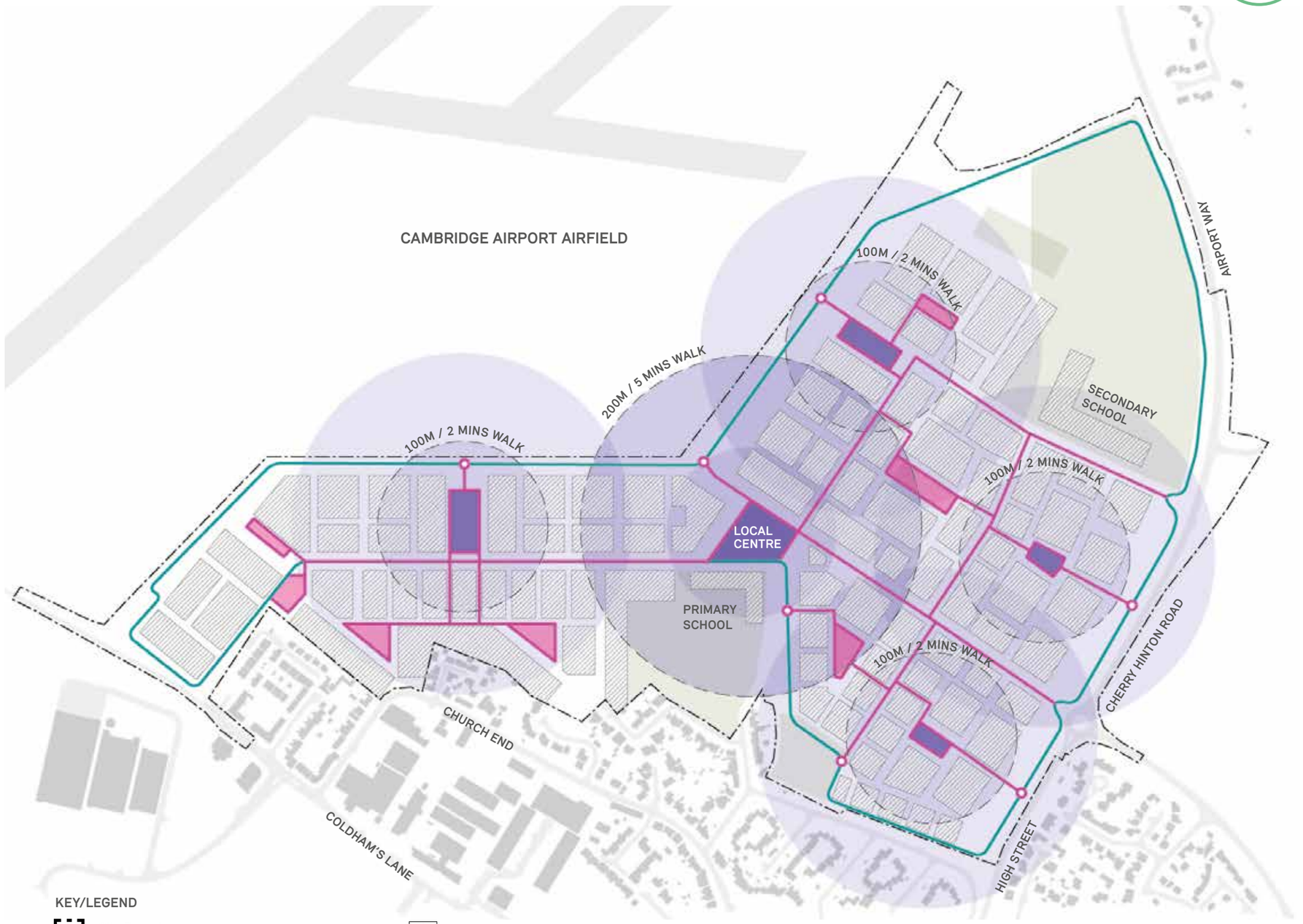
- Street Play
- Neighbourhood Play
- Destination Play.

These should be added to by trim/play trails, allotments, and playing fields.

This strategy must form a network of play opportunities to provide play near to every home. The provision is diverse and integrated within streets and spaces with an emphasis on play for all ages, groups, and abilities.

A play toolkit should be used to control the quality and character of play space and its equipment.

A youth and children's play strategy is a requirement of the outline planning permission and must follow the principles set out above.



Natural play space

Public spaces

Public spaces should include combinations of activities that help bring people together including play, social meeting, resting, and enjoyment of nature. They should be able to safely combine necessary movement routes with social activities without having to resort to fenced enclosures.

Street

Streets must include focal points for a mix of social activities, nature, and doorstep play. These can range from a focal tree or simple piece of seating to a combination of landscape and play features.

Neighbourhood

Neighbourhood parks should provide a public landscape focus for each neighbourhood. The edges of each park must be defined by building frontages. Each park must follow the Living Infrastructure principles and contain activities to attract people to them including playing, meeting, resting, food growing, foraging, and being in nature.

Destination

The Local Centre forms the main focal point for all play and social gathering.

Parkland edges should connect the development to the local agricultural landscape. They should be inspired by Cambridgeshire's 'fen edge chalkland' landscape traditions and must be laid out to provide SuDS landscapes integrated with natural planting and informal play.

Design to avoid railings

Drainage features must feel engaging and be fully integrated in the natural landscape and public ream. They must not be enclosed by railings.

Street

King's Crescent **Henley Halebrown**

South Gardens **Maccreanor Lavington**

Neighbourhood

King's Crescent **Henley Halebrown**

King's Crescent **Henley Halebrown**

Destination

Tumbling Bay Playground **LUC Landscape Architects**

Bridget Joyce Square rainpark **Robert Bray Associates**

Cultural sociability

The network of public spaces must make connections between each other and the surrounding area – including consideration for future developments. Public spaces must work alongside public buildings and the movement network to encourage and support community cohesion and foster social interaction.

1. Supporting new and future communities
- Neighbourhood Parks should facilitate smaller gatherings providing infrastructure for events
- Public spaces adjacent to the airfield should allow easy connections to future developments on the airfield site.

2. Supportive public spaces
- Public spaces which serve community facilities must provide adequate opportunity to stop, rest and enjoy social interaction. Trees/structures should be provided to shade and shelter these places
- Public spaces and places must be welcoming and accessible to all genders, ages and abilities
- Public spaces and public realm finishes must provide flexibility in use and allow for spaces for markets or community gatherings adjacent to the focal buildings, namely schools and amenity buildings.

3. Supporting social cohesion
- Public spaces and places must be welcoming and accessible to all
- Future community growth and emerging need should be considered e.g. by allowing flexibility for future cultural uses to be added within the local centre.

4. Supporting the local community
- The development must be integrated within the local area via attractive walking, cycling and bus routes.
- Planned community uses, services and activities should help support existing uses and needs within the local community, and avoid undermining current services through duplication.
- Local needs and requirements should be defined, and detailed proposals developed, through local engagement.

Active lifestyle

The design of outdoor environments must support improved physical health and mental well-being. This includes promoting walking as the first choice for all internal trips, play and exercise, and access to nature.

An active lifestyle framework which is connected across the site should ensure opportunities for play and recreation to suit all ages are integrated with the streets and public spaces. Designs must create socially inclusive and accessible public spaces that are welcoming and safe for everyone.

1. Recreation for all
- Recreation spaces should provide a variety of types, catering for a multi-generational experience.
- Play should follow inclusive play principles, including physical, creative and social play, and engage all of the senses.

2. Doorstep play
- Seek to provide easily accessible and overlooked space for play and social interactions immediately outside or close to the front door
- It must be considered not to create nuisance for the adjacent properties and should be natural play if possible
- These well-overlooked spaces can positively support the gradual increase in young peoples' confidence to meet others and navigate their immediate neighbourhood.

3. Play along the way
- Should ensure that a network of play weaves like a thread through the site with key focus elements creating play
- Opportunities should be explored within the streets to build in storage for playing out supporting residents to temporarily close their streets for community use.

4. Destinations for all
- Seek to design accessible public spaces that are welcoming, enjoyable and safe for everyone
- This should promote creative and sustainable design solutions prioritising access and inclusion for everyone who lives, works and plays in the community and local area.

5. Biophilic trim trails
- The trim trails which circumnavigate the site should design out any level or materiality changes that create perceived or physical barriers for individuals
- Designs must increase everyday opportunities to access and connect with nature, creating biophilic opportunity.

Materiality and elements

Public spaces

The design of public spaces including street networks must be brought together using a small and coordinated palette of materials and details.

The definition of key spaces should be supported by the use of surfaces and planting. Designs should emphasise the overall shape, sense of enclosure, and multi-use nature of the space, rather than highlighting e.g. vehicle use.

The combination of surfaces, planted landscape and signage should be coordinated with surrounding building designs to create a sense of place such as visual gateways, activity, and calm.

Lighting

The lighting palette for the scheme should be muted in nature, concealing itself into landscaping where possible. Lighting is a detailed subject, and as such a lighting strategy needs to be developed in the future to specify equipment and look into the specifics of lighting surfaces, avoidance of glare and other detailed issues.

Lighting design must mitigate the effects of artificial light pollution spill. This includes glare on existing and future homes. Lighting design should refer to the Institute of Lighting - Guidance Note: The Reduction of Obtrusive Light (GN01/21)

Artificial lighting must be designed to minimise affecting wildlife habitats, features and green corridors with essential 'task' lighting, such as along cycleways, limited to the minimum for safe travel and either being responsive to use by people or turned off completely for part of the night.

Direct lighting of, or light spill on to, retained mature trees and hedgerows which have the potential to support bat roosts and/or bat foraging and commuting features, must be avoided.

Street furniture

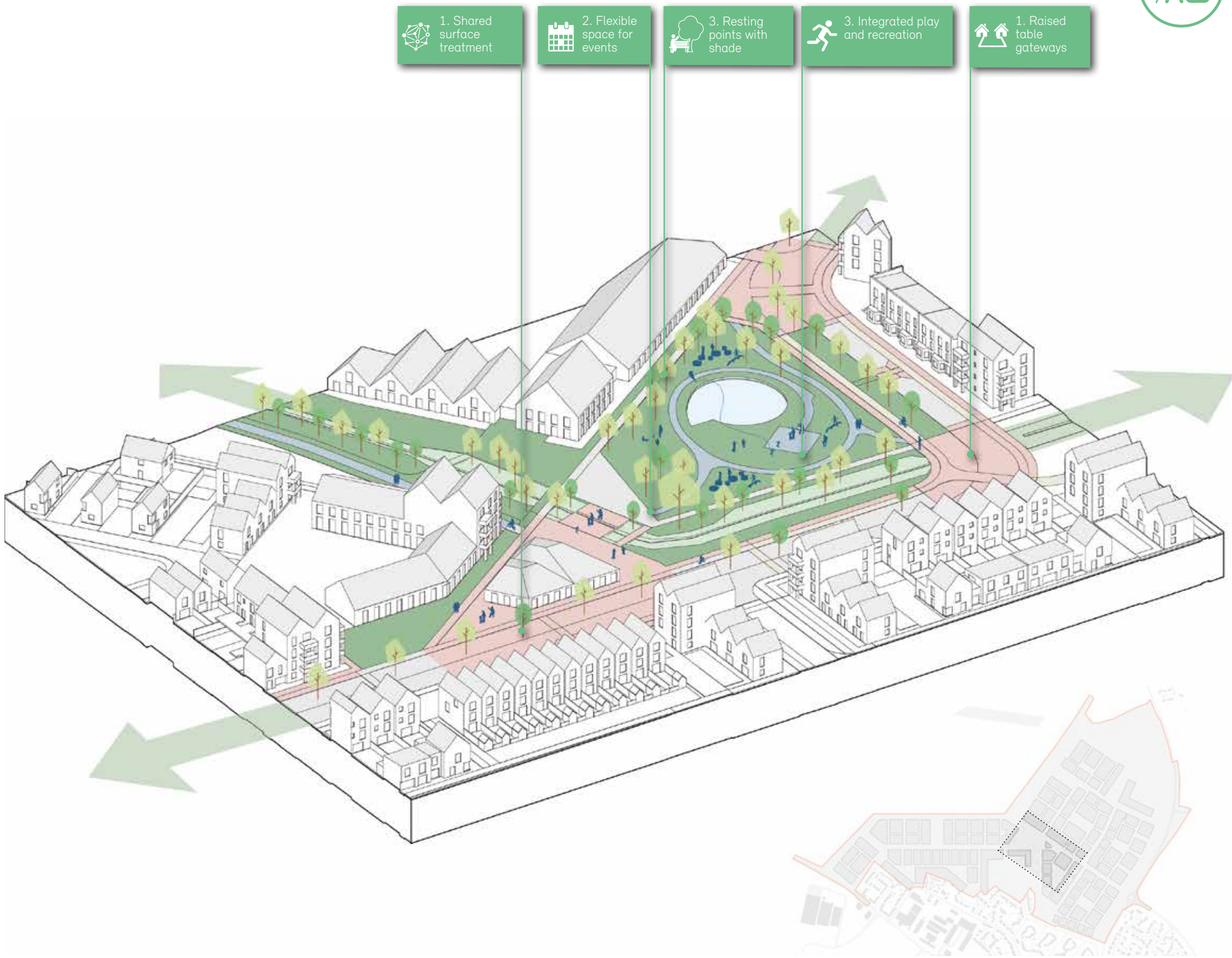
Street furniture should have a simple but elegant aesthetic and emphasise the use of natural hard-wearing materials.

Wooden benches should be used for seating, and should be nestled into planting beds.

Public art

Public art should be located at focal points and key nodal points.

Public art can form part of the play strategy, creating special moments within the street and landscape.



Designing hard surfaces

With the exception of Market Square, large areas of hard surfaces should be minimised or avoided. Where this is not possible, trees should be included to provide summer shading and cooling.

Material palette

Hard surface materials should have natural tones, incorporating subtle variation, and reflect a walking and cycling prioritised environment:

Using the material palette:

- Materials must be used in a consistent way to avoid a patchwork appearance
- Paving colours and textures must be chosen to work harmoniously alongside surrounding building finishes. These combinations and laying patterns must be tested with sample panels
- Where paved shared/unified surface treatments occur, any required demarcation within the space should be handled by the incorporation of subtle changes in paving direction, texture or kerb levels. Significant variations in colour or tone should be avoided.

All public spaces must be designed for inclusivity including textured paving blocks, level surfaces and 20mm kerbs.

Robustness and practicality

Surfaces must be robust and accessible to all.

Within adopted streets and landscapes, the handling of materials must reflect the design principles of the Code. Detail of specific materials used are to be agreed with council and highways officers to allow for future adoption. Materials selection to be adopted by the Local Highway must conform to those within the Housing Estate Road Construction Specification

Within non-highways adopted streets and park areas, surface water runoff must be minimised and all surfaces should be capable of being permeable.

Gravels can be self binding on low trafficked areas, but must be specified to maintain water permeability. Loose gravel paths must be avoided.

Asphalt with chippings

Tinted bike lanes

Tumbled concrete paving

Resin bound gravel

Conservation kerb

Self-binding gravel

Bench recessed into natural planting

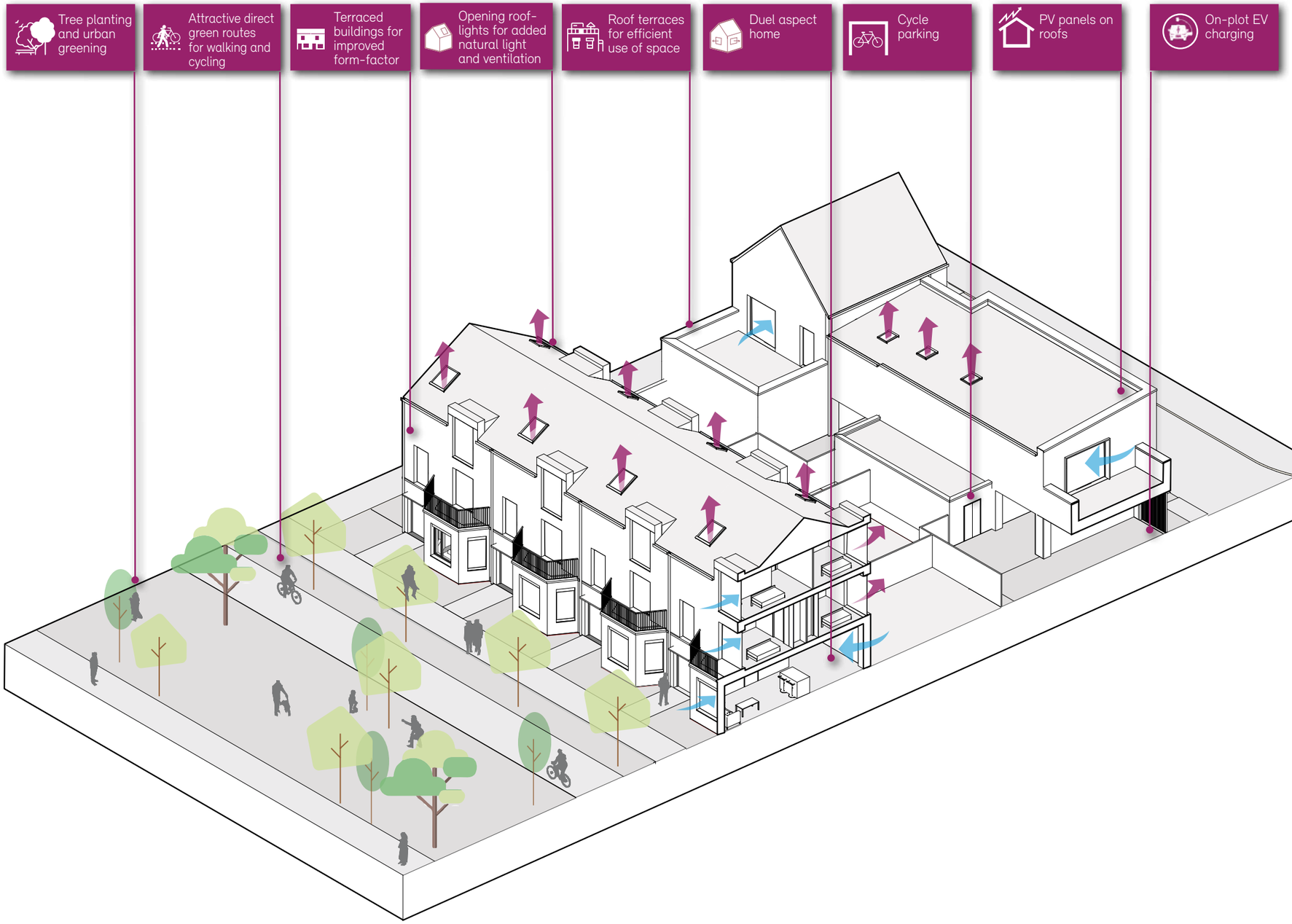
Subtle lighting in key public spaces

Subtle lighting in key public spaces

5 Resources

The development will be energy efficient, and designed to be gas free from the outset. Climate change resilience will be built-in, with buildings and green spaces that avoid overheating and conserve water and energy resources by design.

The development will focus on using passive principles, maximising benefit of green spaces and reducing running costs by encouraging sustainable lifestyles.



Naturally ventilated homes

Using the energy hierarchy

Building designs must follow the energy hierarchy. This means prioritising lowering energy demand, before looking to more technical solutions such as renewable energy generation with Photo Voltaic (PV) panels.

"Fabric First" passive principles should be used; the form of the building, its orientation, surrounding landscapes, and fabric efficiency all help contribute to reduced energy consumption. These include:

- Dual aspect homes
- Water saving fittings and appliances
- Natural light and ventilation to communal areas in flats
- Reducing hard surfaces and increasing summer shading with green spaces, water, and trees near homes
- Use simple building forms which limit thermal breaks
- Reduce embodied carbon during the manufacture, transport, and construction of building materials as well as end of life emissions
- Designing out waste of construction materials
- Consider offsite manufacture where possible.

Building typologies with an efficient form factor should be used, for example by including terraced houses and flats.

Supporting sustainable lifestyles

Supporting sustainable lifestyles
The development must support people to have healthy, active and sustainable lifestyles. This will include:

- Street networks that promote walking and cycling to schools, community facilities and shops
- Access to buses and public transport
- Site-wide car club parking and membership strategy with the provision of car club spaces and vehicles
- Charging facilities to support the use of electric vehicles
- Spaces for home working, or to work locally
- Homes that are adaptable to changing lifestyles or circumstances
- Spaces to socialise through play, exercise, gardening, food growing and resting.

Climate change resilience

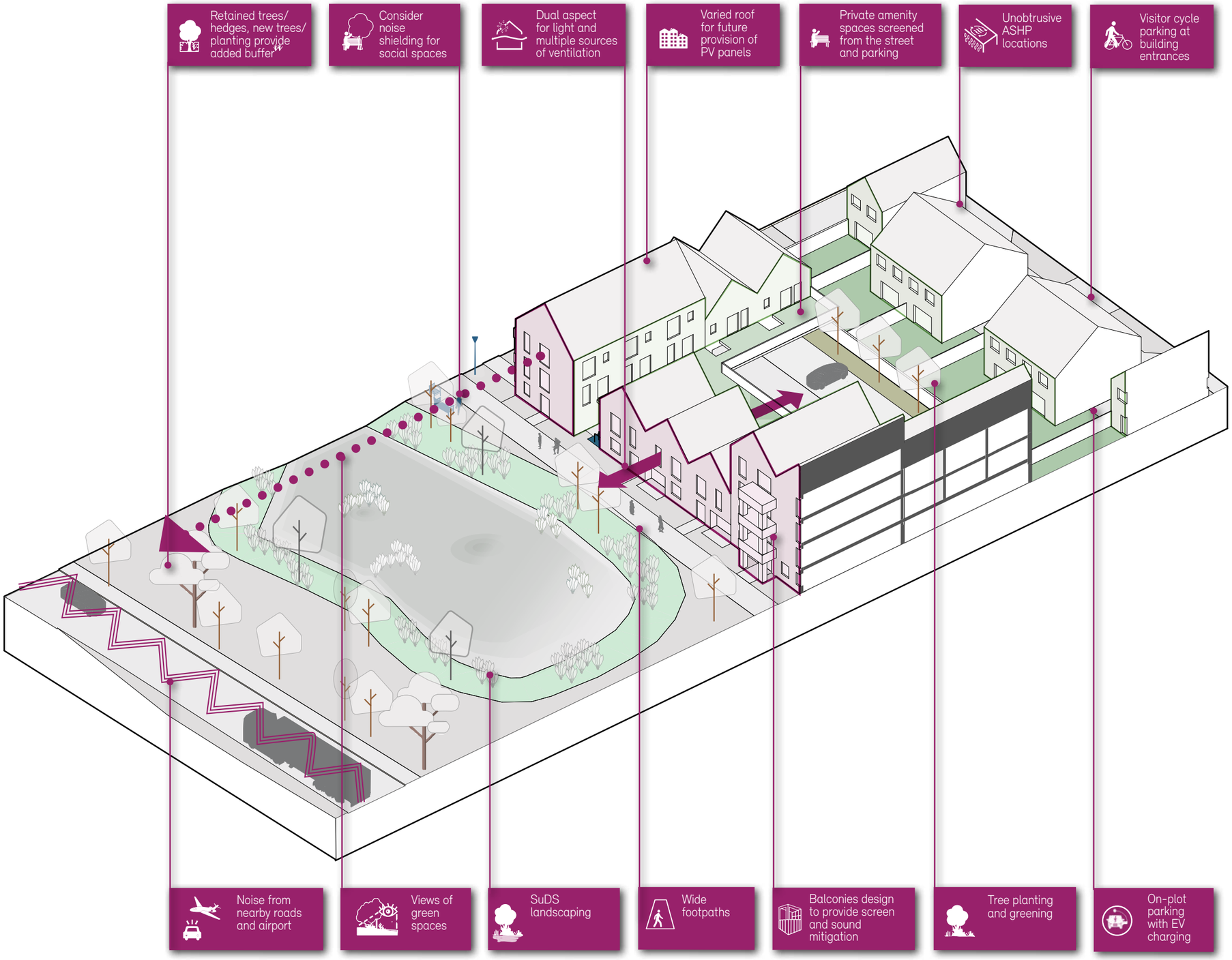
Proposals must consider climate change resilience across both buildings and landscape. This will include:

- Mitigating overheating risks for building users, prioritising passive measures e.g. dual aspects, natural ventilation strategies, and shading
- Any shading devices on proposed elevations be integrated with the window openings
- Addressing the risk of urban heat island effects and overheating in public spaces e.g. minimising hard landscaping and using cool materials, incorporating water, and including deciduous tree planting to provide shade to when it is needed
- Landscape planting selection for drought resistance Sustainable Drainage Systems (SuDS) to manage surface water, flood risk and designed to anticipate significant changes in rainfall.

Where there is a risk of airport or road noise, these should be addressed using passive design measures wherever possible. These include:

- Location of amenity spaces away from noise sources
- Integration of sound absorbent materials and surfaces
- Acoustic protection of balconies
- Where mechanical ventilation is unavoidable, any vents must be unobtrusively integrated into the elevation design.

Further guidance on integrating sustainable building design can be found within the Homes and Buildings section.



Integration of services

Storage

Utility service boxes, air source heat pumps, cables, wires, flues, satellite dishes must be kept off frontage elevations and be discretely incorporated.

Vents must be carried out to match the surrounding wall finishes and be carefully coordinated with openings.

All buildings must provide sufficient internal storage to allow for the segregation of recyclable materials and food waste. Design of waste storage must not detract from the street scene.

Bin storage for waste must be screened from the public realm, and to help with this the stores should be located behind the building line.

Energy generation

Where air source heat pumps or similar are used, these should be located in rear gardens, or screened from the street frontage.

Any potential noise from pumps or similar plant / equipment must / will need to be assessed during the design stage and mitigated if required.

Where possible, roofs should be designed to optimise solar orientation to allow for future PV generation. Where PV panels are placed on sloping roofs these must be carefully coordinated with the building design and mounted in line with the roof finish.

Enclosure and location of service buildings such as substations must follow the Design Code.

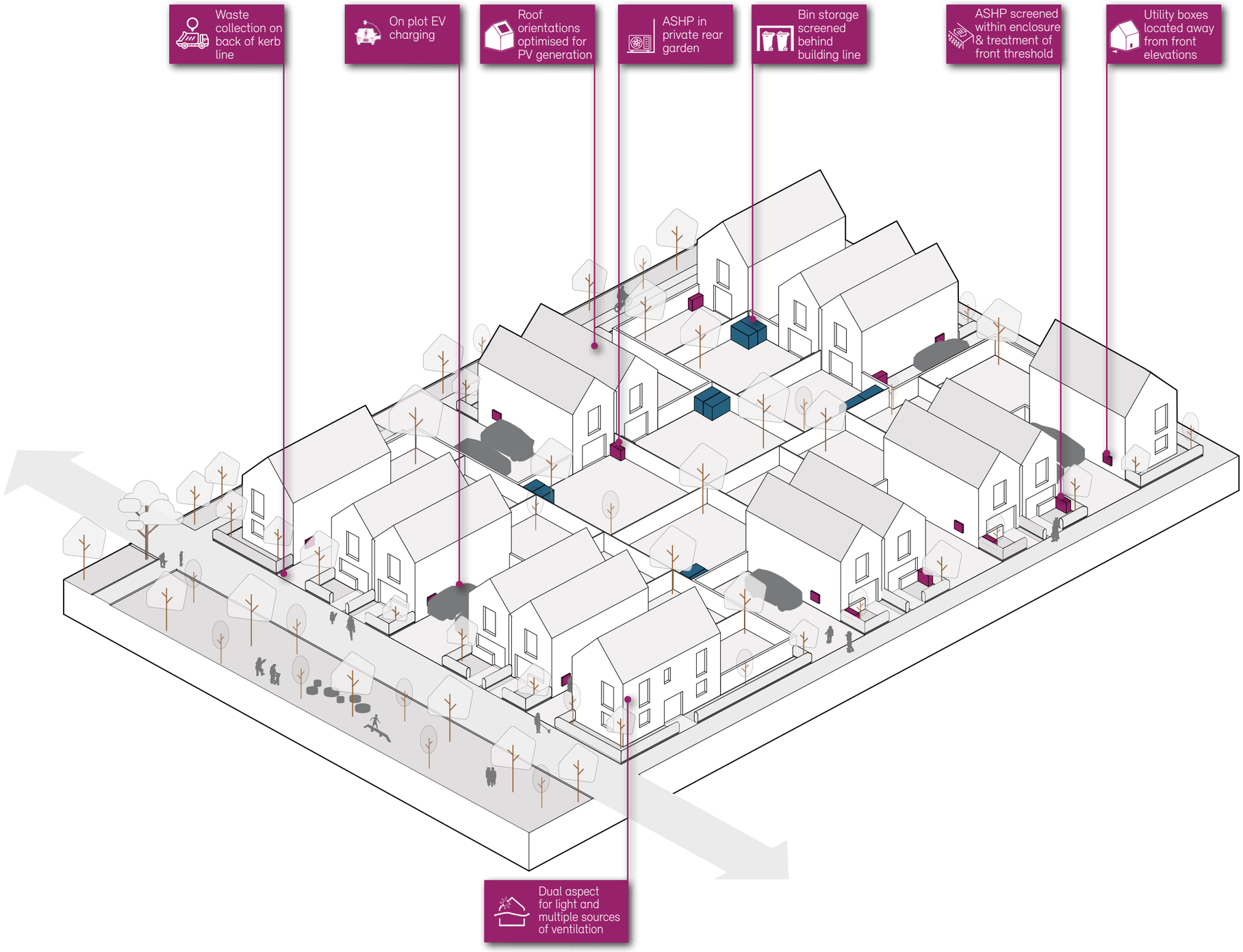
Noise

Where there is a risk of airport or road noise, these should be addressed using passive design measures wherever possible.

These should include:

- Location of amenity spaces away from noise sources
- Integration of sound absorbent materials and surfaces
- Acoustic protection of balconies
- Where mechanical ventilation is unavoidable, any vents must be unobtrusively integrated into the elevation design.

Further guidance on integrating Homes and Buildings design can be found within the Homes and Buildings section of the Code.



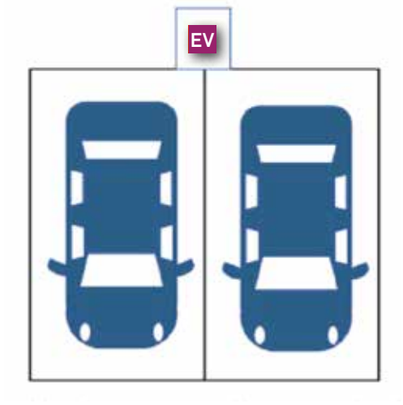
Electric Vehicle (EV) strategy

Every home must include provision for charging of Electric Vehicles.

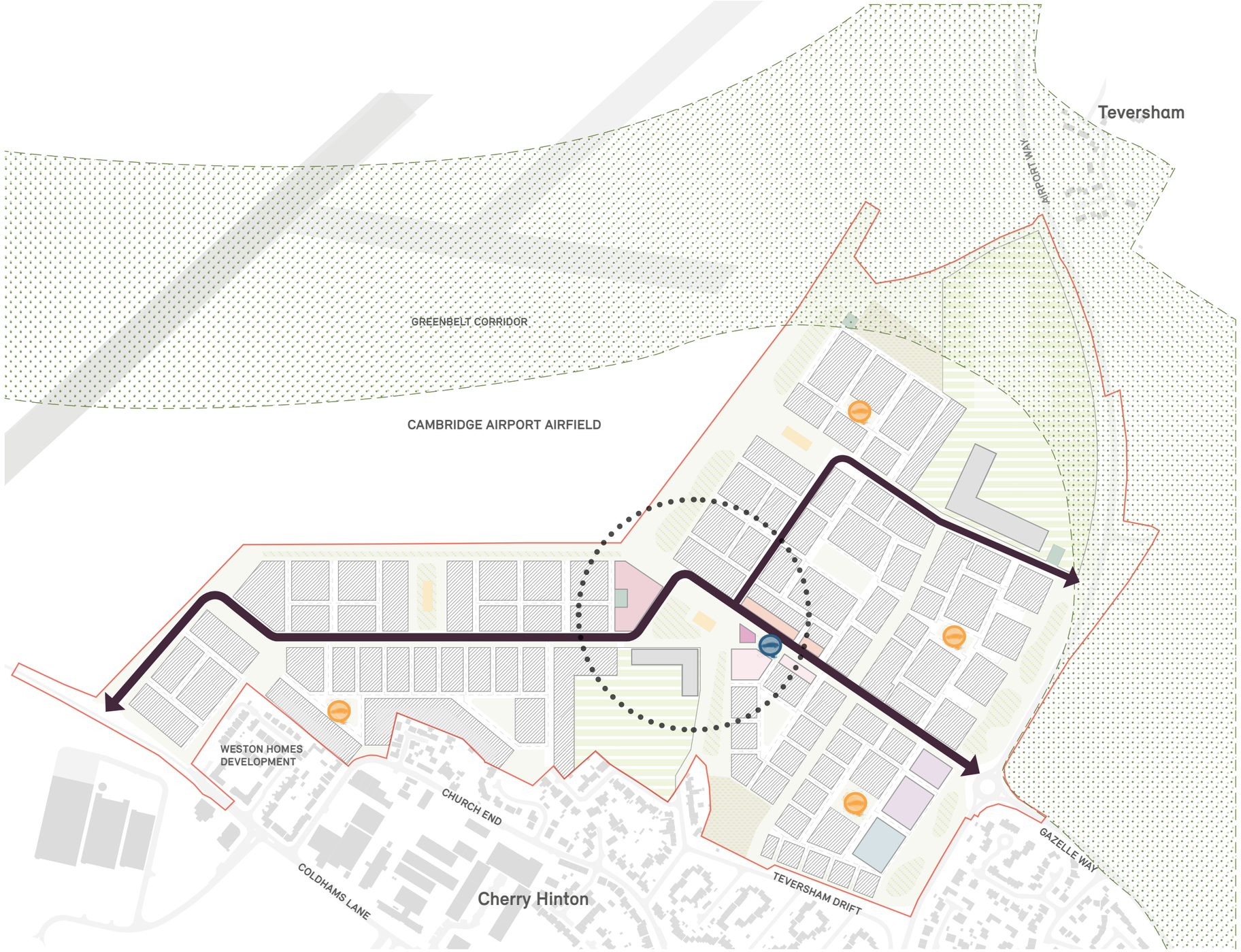
All dwellings with a dedicated on plot parking space must have active EV charging facilities.

For dwellings with communal or courtyard parking arrangements, 50% of homes must have active EV chargers. The remainder of dwellings must be provided with adequate electrical capacity & ducting for future installation of EV chargers.

Rapid charging hubs must be provided at strategic locations for the use of both residents and non-residents. A central rapid car charging hub can be provided within the market square, while other smaller hubs can be located within surrounding neighbourhoods parks.



Typical EV charging arrangement



Recommended locations for strategic Rapid Charging Hubs

Living Communities

We have grouped the four characteristics of Identity, Built Form, Uses and Homes and Buildings under a shared heading of Living Communities.

This is to emphasise the importance to the Code of taking an integrated design approach to all aspects of building design. Buildings must be understood in the groups they form, explaining their practical and aesthetic coordination, and the streets that they create, in an integrated and coordinated way.

Materiality

Materials will help integrate the proposal into the surrounding area by complementing the existing materials, while also reducing embodied carbon.

Neighbourhood

Creating a design-led development, providing spaces to excite and spark local interactions and help build a strong community.

Building design

Buildings will contribute to both the sense of identity of the individual home, and how it belongs in the street.

Detailing

How buildings and neighborhoods are detailed, and the clarity and consistency of that detailing, is a key contributor to their character.

Sustainable homes

Taking a design led approach to delivering high quality, low/zero carbon, affordable, adaptable, family homes fit for the future.

Tenure blind

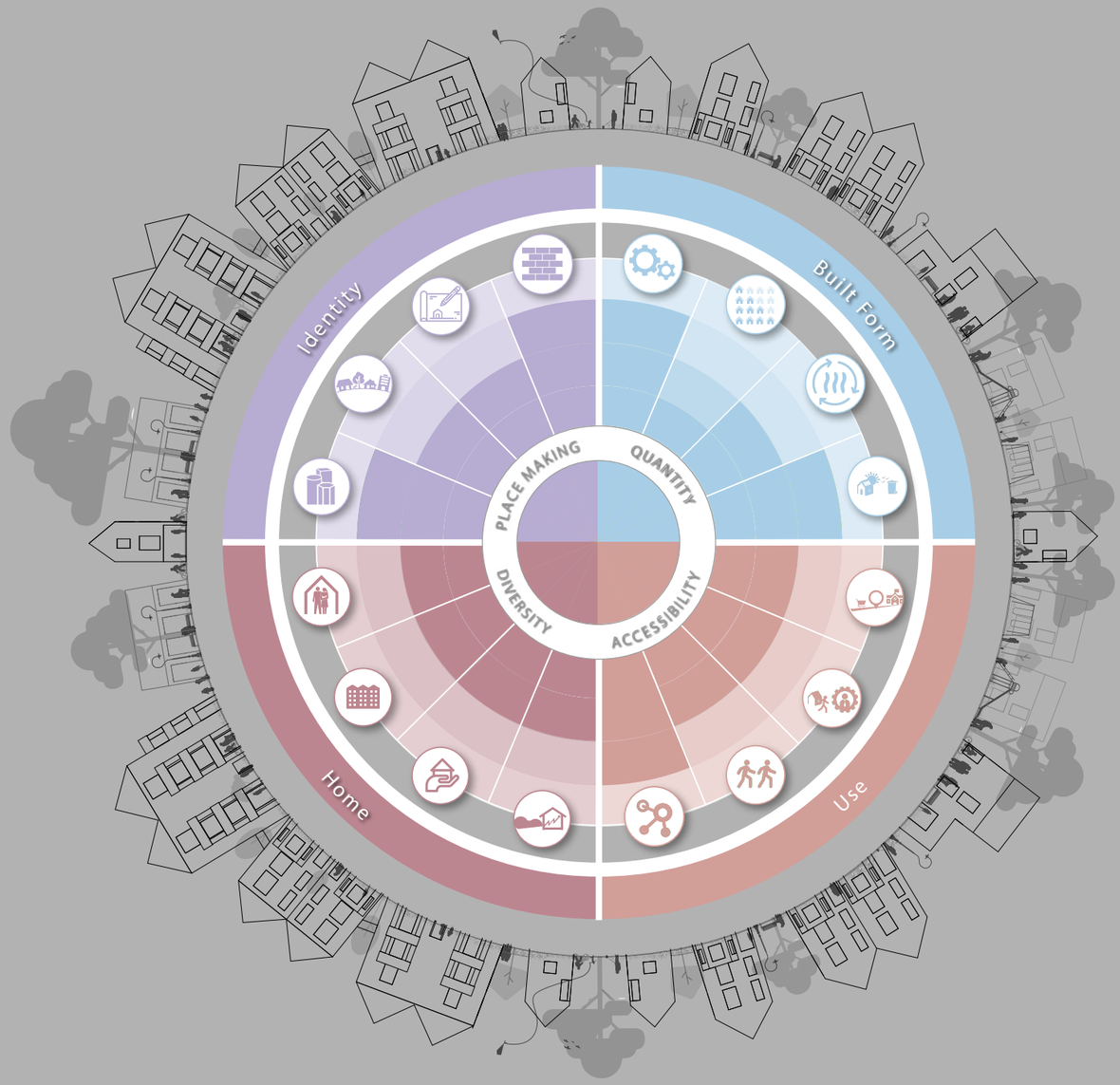
Providing a tenure-blind, sustainable and vibrant community that knits into the surrounding neighborhoods.

Choice

Providing a choice of high quality homes.

Fabric First

Fabric First design for both climate change mitigation and resilience.



Street design

Streets and spaces will be recognisable and defined at their edges by buildings and landscape to make them easy to navigate with priority given to sustainable transport modes.

Density

A variety of scales, and forms of development will be used as part of the distinctiveness between different low-rise urban, suburban, and rural inspired areas.

Resource management

Renewable/circular resource management including heat, energy and water.

Environmental sustainability

Environmental sustainability and reducing environmental impact at the heart of every design decision, including innovative technologies for energy and waste to create a sustainable community.

Social sustainability

Create an active center with shops, schools and other 'social infrastructure'.

Home working

Homes and neighborhoods designed for the post pandemic world with space and infrastructure to support home working.

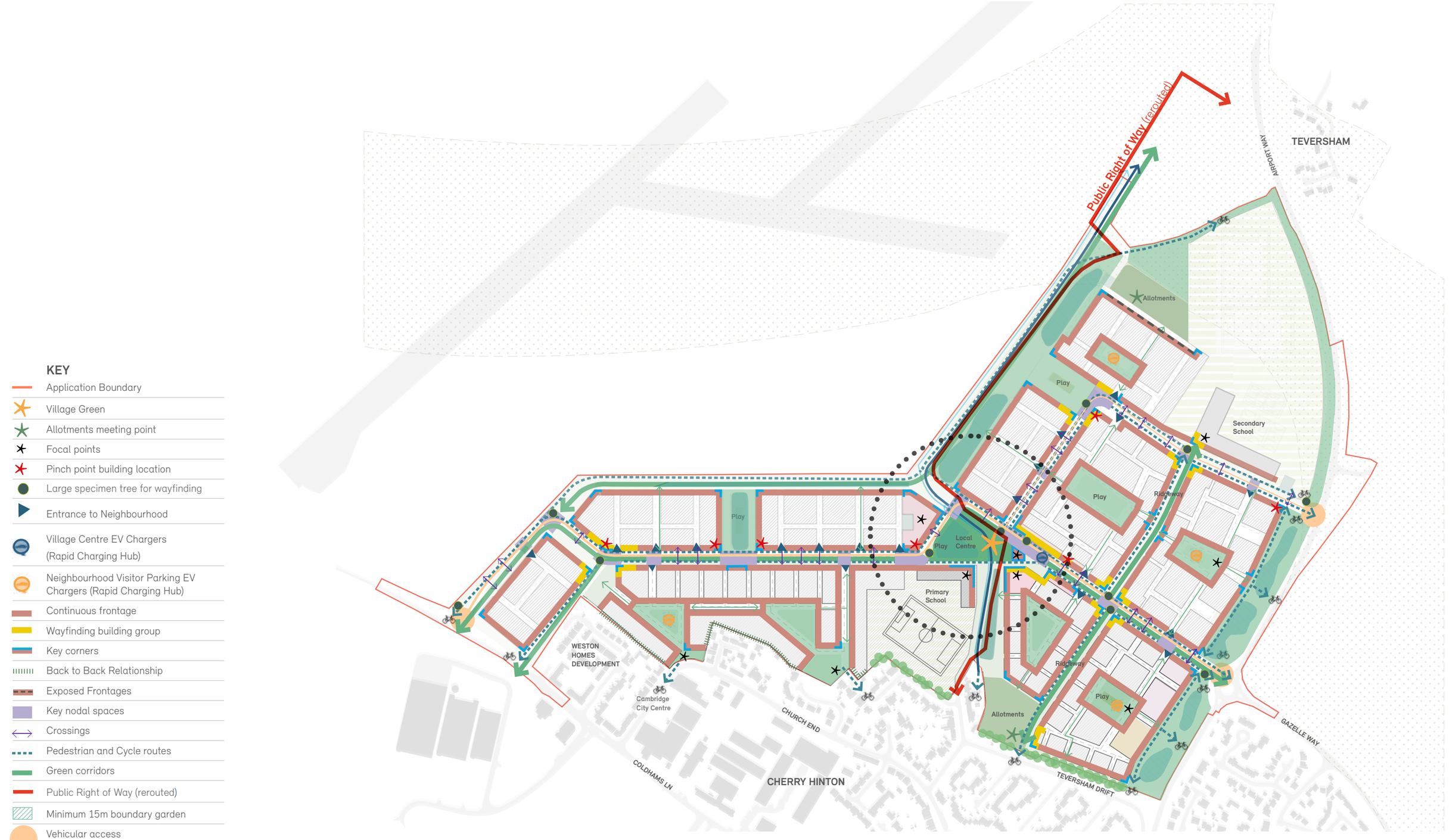
Accessible

Providing high quality infrastructure to connect residents with the world beyond. Prioritising sustainable transport modes.

Amenity

Providing spaces for local interactions and help build a strong community.

Character Area & Neighbourhood Detailed Framework



Framework masterplan

6 Identity

LNCH will be visibly rooted in the surrounding area, bringing homes together into small neighbourhoods, each with their own character and with a village green and market square at their heart. Both building and landscape designs will have a locally inspired, refined, and contemporary details using a traditional and lasting material palette.












Marmalade Lane, Cambridge **Mole Architects**
Local character precedent, Cambridge
Accordia, Cambridge **Maccreanor Lavington**
Accordia, Cambridge **Grant Associates and FeildenCleggBradleyStudios**
Local character precedent, Cambridge
Knights Park, Eddington, North West Cambridge **Pollard Thomas Edwards and Alison Brooks Architects**
Accordia, Cambridge **Grant Associates and FeildenCleggBradleyStudios**
Abode, Cambridge **Proctor Matthews Architects**
Marmalade Lane, Cambridge **Mole Architects**
Abode, Cambridge **Proctor Matthews Architects**
Trumpington Meadows **Allies and Morrison**

Palette of materials

Bricks

The development should reflect the mixed use of materials in the local area. The dominant material should be brick.

Gault brick, the yellow-grey-white Cambridge brick, is highly distinctive but nonetheless includes within it an attractive variety of shades, from almost white, to pale buff and darker grey buffs.

A mixture of bricks should be used to help provide variation across the development. The brick palette opposite illustrates a range of yellow-grey-white shades, including light and dark tones - alongside soft reds. It also shows the importance of mortar choices.

Accent materials

The brick selection should be combined and composed with the other accent materials on the palette. Accent materials and decorative techniques should be used generously and with consistency – creating families of accent buildings and focal points, rather than isolated decorative flourishes.

- Bricks can be contrasted to create decorative patterns.
- Weatherboarding, reflecting its use in rural and agricultural buildings in the area. Boarding finishes should have dark or natural tones.
- Tile/shingle hanging can also be used. Where openings appear within areas of tile/shingle hanging the window opening must be consistently lined to provide a crisp edge detail.
- Render can only be used on small low-rise buildings, and must be carefully detailed with lined openings.
- Where cast masonry stone is used, for example around window openings, this must be contemporary in detail.

Roofs

Roof materials must be selected to harmonise or provide an attractive contrast with the host building.

Roof finishes should generally be varied to give a variety of textures and tones across the development, including the use of plain and pan tiles.

Standing seam roofing reflects agricultural precedents, providing a versatile finish that can be laid at varying roof pitches, as well as used as a wall finish. It should be used with the Village character area, for example on focal point buildings.

Roof verges and eaves must all be detailed to be consistent, unfussy and contemporary.

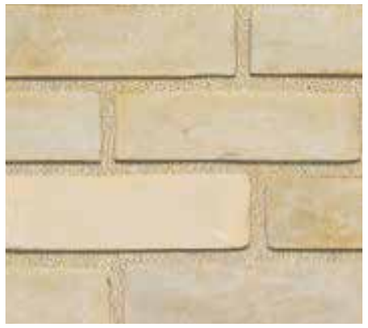
Rainwater goods and other metalwork must be simple and contemporary in character and colour-matched or otherwise harmonised.

Other materials

The material palette opposite is not intended to be exhaustive. The palette can be added to with other quality materials where these support the character of the development.

Dominant material

Light buff brick with light mortar



Light buff brick with matching mortar

Mid buff brick with matching mortar

Gault brick - Light

Accent materials

Soft light red brick

Dark grey brick

Decorative brick bonds

Masonry surround

Roof materials

Dark painted boarding/painted weatherboard

Shingles

Mortared roof verge

Dark tiles

Mottled red pan tiles

Dark grey roof tiles

Folded standing seam roof and walls

Tiles across roof and walls

Selection of materials should consider the sustainable sourcing, longevity, and potential re-usability of materials.

Using materials

Accent materials

Decoration and accent materials should be used to help emphasise important frontages where they appear at key moments in the masterplan, such as when enclosing neighbourhood squares, at focal points and at street corners.

The use of materials, and changes in materials and decoration, should be used to create a plot-based rhythm, and to help explain the structure of the underlining form such as its roof, or how it meets the ground, or to give prominence to entrances or other important architectural openings.

Materials and decoration should be used coherently to create visual interest, richness, and texture, and create a degree of complexity to create attractive facades from both near and far.

Detailing

Detailing should be contemporary and unfussy. This will be a key contributor to building character, and should be consistent through all details.

Examples of the detail quality expected by the code are illustrated opposite.

In order to ensure development quality, critical details and a materials must be provided as part of reserved matters applications, including:

- Window reveals, sills and heads
- Roof eaves and verges
- Decorative features
- Materials.

This should form a materials and details strategy, and can act as a 'details handbook' to guide the specification of materials and details during the discharge of condition stage.

Details should be provided at 1:5 unless agreed otherwise.

A varied brick palette used to emphasise a plot based, finer grain rhythm. Generous window reveals framed with accent material create modelling and depth. Marmalade Lane, Cambridge **Mole Architects**

Windows

Windows at Cherry Hinton North must be simple, elegant and contemporary with slim profiles using a minimum number of mullions and transoms to be functional.

The location and design of window openings must be composed as part of the street design - creating animated street frontages, well overlooked public spaces, and a clear hierarchy of openings.

Window design must optimise daylight, sunlight and natural ventilation within the building.

Stuck-on glazing bars, fake sash windows, and ad-hoc combinations of varying or fat profile depths must not be used.

All openings should be recessed a minimum of 90mm from the face of the building elevation (with the exception or timber-clad or tile-hung buildings with lined openings). Larger apartments and forms should consider deeper reveals to increase façade modelling and depth.

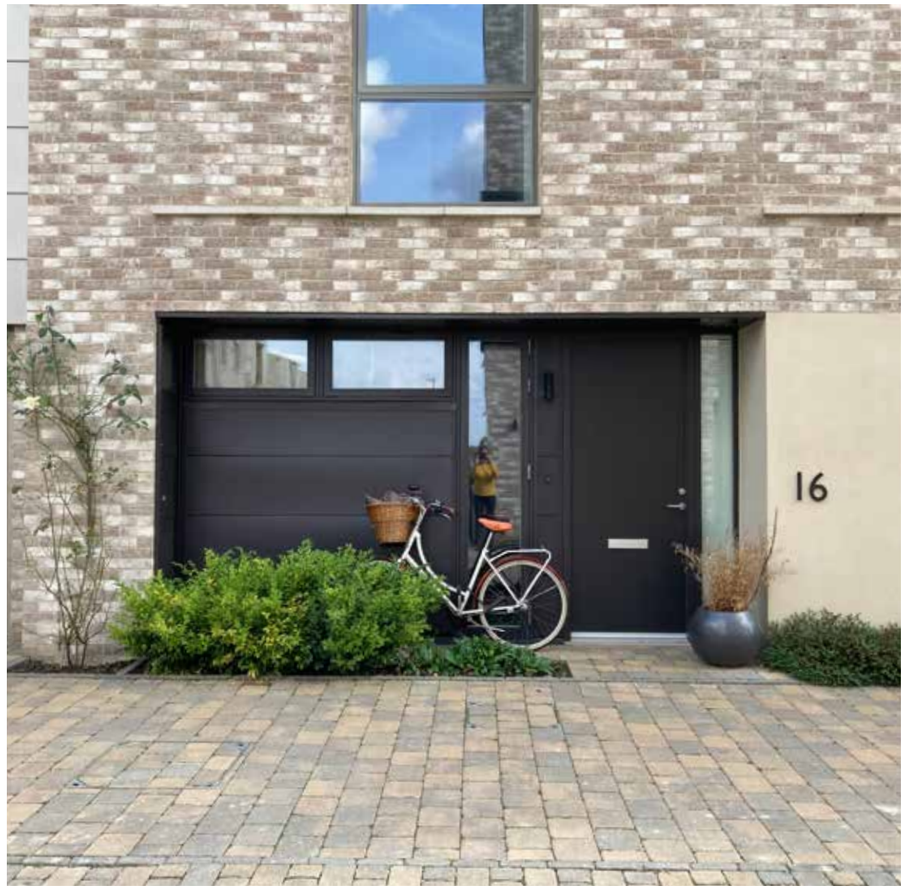
As part of climate change resilience, window design must consider overheating risks, prioritising well integrated passive design measures for openings such as:

- Orientation and dual aspect to achieve effective cross ventilation
- Landscape planting, street design as well as
- Building modelling, including deep reveals
- Burglar resistance, for example secure night ventilation.

Roofs must be designed at the planning stage to maximise solar generation potential and to avoid unsightly and contorted flashing details and intrusive untidy rainwater goods.

Entrances

Entrances must be simple, elegant and contemporary and focus on natural and hard-wearing finishes.



Thoughtfully composed entrance on a mews. Knights Park, Eddington **Pollard Thomas Edwards and Alison Brooks Architects**

Simple window openings and feature entrances. Knights Park **Pollard Thomas Edwards and Alison Brooks Architects**

Special corner window. The Avenue, Saffron Walden **Pollard Thomas Edwards**

Window with integrated ventilation screen. Future Homes, Passivhaus, Southwark **Maccreanor Lavington**

Recessed lined entrance. Marmalade Lane, Cambridge **Mole Architects**

Patterned brickwork highlighting individual homes. Abode, Cambridge **Proctor Matthews Architects**

X Pastiche building components

X Pastiche building components

X Pastiche building components

X Pastiche building components

Door finishes should be painted, natural timber or metal. The material chosen for the front door is an important consideration, as it is something we come close to and touch, not just look at.

Where they are used, porches, canopies and surrounding glazing must be thoughtfully integrated within the surrounding architectural treatment.

The location and design of entrance features and doors must be composed as part of the street design. Consistent door designs can be a key part of the identity of groups of homes.

Entrances must be safe and feel well overlooked. They should be visible from the street and have natural surveillance either from windows within the home itself, windows from homes nearby, or both.

Opportunities to integrate seating into entrances should be considered to increase the sociability of front thresholds.

Windows composed in the street. The Avenue, Saffron Walden
Pollard Thomas Edwards

Building design and elevations

Frontages

Building frontages must address with entrances and/or significant openings onto all the public spaces they face.

Prominent side elevations are as important as the main entrance frontage.

Thresholds

Threshold treatments at the front of each home must define the edges of the private and public realm. The threshold treatment should reflect the character of the street, and can be through a combination of planting, hedges, railings, or walls. The private footpath to the home should be subtly contrasting with the surrounding surfaces. Shallow thresholds, such as on mews streets, should be expressed through a combination of subtle changes in paving and climbing plants. Thresholds around ground floor apartments must provide a degree of privacy for rooms and private amenity spaces, but privacy should be balanced to retain high levels of natural surveillance from the homes onto streets and other public spaces.

Where low walls or railings are proposed as part of a threshold treatment, consideration must be given to the design of footings or foundations to avoid encroaching under the adopted highway. Consideration should also be given to railing design where adjacent to the adopted public highway to avoid risk of injury for

Form

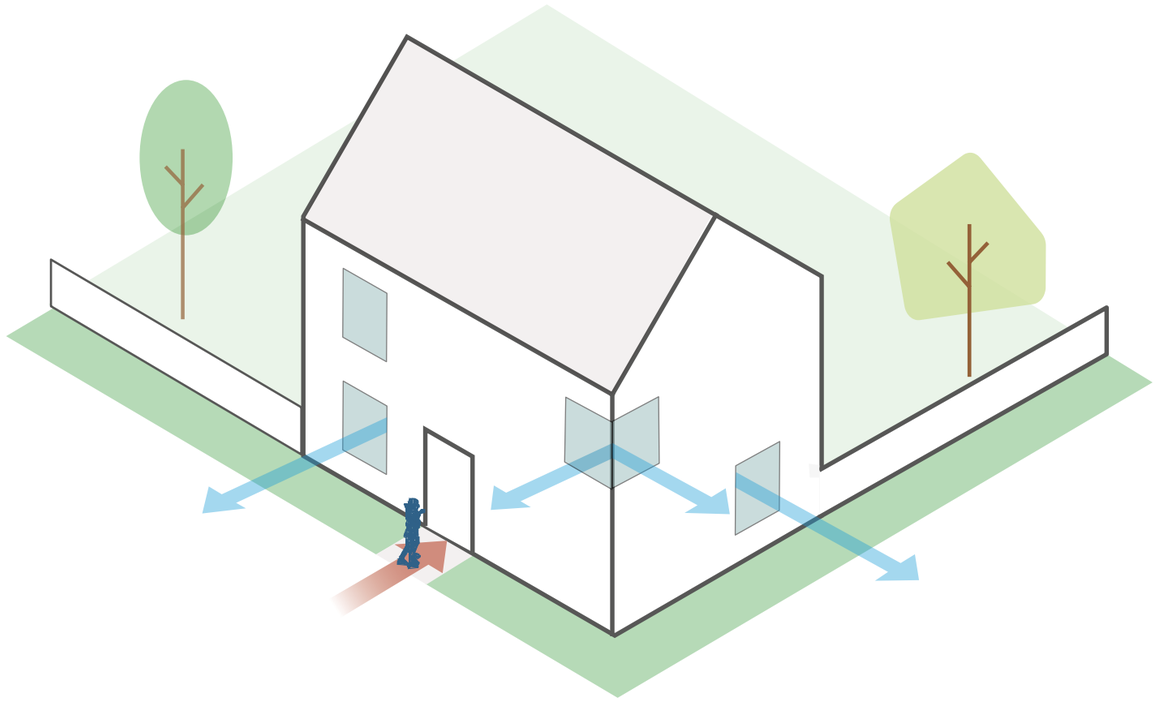
Building forms should contribute to both the sense of identity of the individual home, and how it belongs in the street. Building forms should contribute to creating diverse, fine grain and human scale streetscapes.

The roofscape of buildings and building groups must be considered as part of the urban design and character.

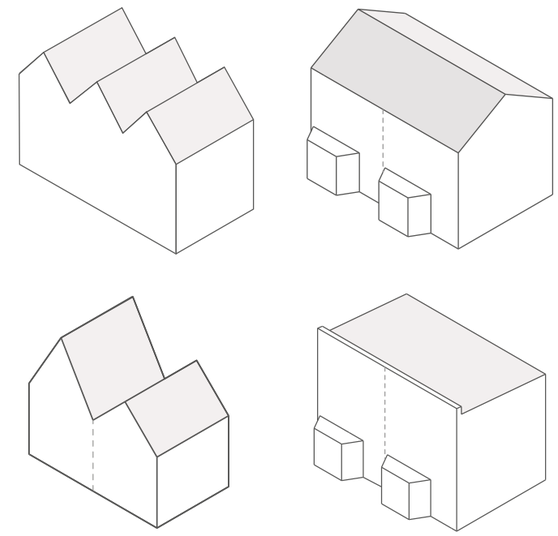
Varied roof forms and volumes, building modelling and bays should be used to break down larger footprint buildings to mitigate their bulk, contribute to the identity of homes and integrate apartment buildings into streets with houses.

Roof drainage must be considered at the planning stage to avoid unsightly and contorted flashing details and intrusive untidy rainwater goods.

Further guidance on how buildings are required to come together in groups can be found in the Built Form section of the Code.



Activate façades on key locations and engage with the public realm on all sides to help provide natural surveillance



Terraced houses with variation, end terraced dwellings and roof scape

Corner window can be used to activate two elevations

Corner buildings must engage with both street frontages

Apartment building depth broken down into 2 gables. Prominent side elevations are as important as the main frontage

Character Areas

The Design Code includes three Character Areas.

1. The Village
A lower density area of village edge agricultural inspired buildings, including the local centre.

2. The Gateway
An ordered network of urban inspired mid-rise terraced houses, mews homes, and apartments.

3. Parkside
Semi-formal villas overlooking parkland edges, with mews and terraced homes behind.

Each Character Area includes special material, spatial, architectural and density characteristics to create sense of place.

These special characteristics work alongside the sitewide requirements of the Design Code, which apply in all Character Areas. The illustrations in this guidance are generated from the framework masterplan. They are intended to help design teams to understand and respond to the specific requirements and challenges of the different parts of the development, and how coding can be applied to create unique neighbourhoods.

The three Character Areas must be incorporated as part of delivering harmonious variety and distinctive neighbourhoods.

The key characteristics set out for each Character Area should be followed.

Where character areas join, along the main infrastructure routes, transitions between character areas should be gradual. To enable this, the heights parameters of buildings lining the main routes allow for both sides of these streets to be 3+ storeys.

Three character areas are proposed: The Village, The Gateway, and Parkside

KEY
- Application Boundary
- Village
- Village Green
- Gateway
- Parkside
- Primary School
- Secondary School

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1. The Village - Contemporary multi-purpose community building provides social amenity in Crystal Palace Park, **Chris Dyson Architects**

2. The Gateway - Rhythm of townhouses overlooking onto a green frontage, Knights Park **Pollard Thomas Edwards and Alison Brooks Architects**

3. Parkside - Rhythm of gables overlooking green frontage, Mosaics (Barton Park), Oxford **Pollard Thomas Edwards**

The Village

Village Character Area

The Village Character Area is a low-mid density area of agricultural and rural inspired buildings. It includes most of the local centre.

The Village is located on the south side of the development where it joins onto the northern edge of Cherry Hinton. It must be a good neighbour, connecting with the local community using low-rise homes and gardens to create secure back-to-back relationships with existing residential gardens. Design teams must undertake detailed early analysis of existing properties to identify any potential overlooking amenity issues.

The Village Character Area will form the bulk of the mixed-use local centre, alongside two residential neighbourhoods; East Village and West Village. The edges of these neighbourhoods are defined by the surrounding infrastructure of streets and green spaces.

Reflecting the lower density and agricultural character, The Village should generally feel loose and informal, transitioning to some formality along its northern boundary where it lines the south side of the Primary Street.

The scale of the Village is largely up to 2 storeys, with taller buildings only permitted in the area of the local centre and along the primary street boundaries. Where this additional height is available, it should celebrate significant points within the streetscape, as a tool to help generate focal points, and as a transition to higher density homes in the neighbouring character areas.

East Village

East Village is a network of informal residential lanes bounded by Teversham Drift, East Park, Primary Street and The Village Green. It is crossed by The Ridgeway (a car free route) and includes two neighbourhood parks and an area of allotments.

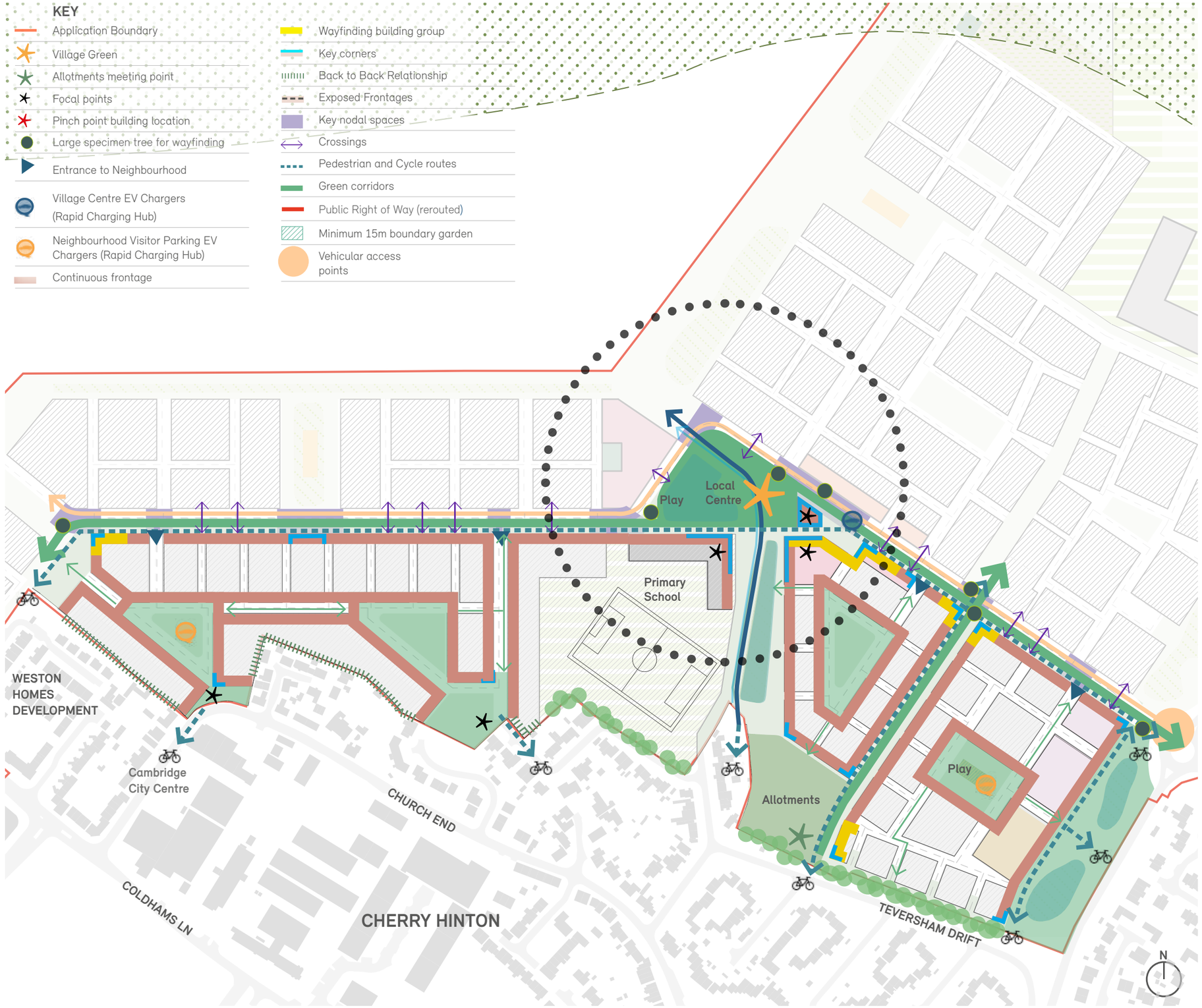
Noise risks to homes and amenity spaces from Cherry Hinton Road must be carefully considered.

West Village

West Village lies to the West of the primary school. Rear gardens of new homes must back on to and enclose the school playing fields boundary.

In contrast to East Village, West Village is potentially more formal, or semi-formal. It will be a low-rise residential area of streets and avenues, bounded to the north by the primary street, and to the south by the rear gardens of existing homes off Church End and recent development at Kings Meadow.

At its heart are two areas of linked green spaces, with frequent connections to the Primary Street. Well landscaped and overlooked walking and non-dedicated cycle links must be established to the south of the Village via modal filters, to connect to the existing street network.



The Village framework

Built form and layout

Buildings in The Village should reflect rural building forms; barns, cottages, and other agricultural working buildings.

Roofs should typically be steeply pitched and work with building footprints to create simple, legible, building volumes.

Where different building footprints are combined, the forms and roofs should be composed to create a cluster of distinct but related rural structures.

Materials

Material use should reflect the increased use of accent and rural materials within the site wide palette, such as the use of painted boarding. Patterned brickwork should be used to add texture and variation.

As important as the materials themselves, is the care in which they are used. The rural and agricultural buildings that inspire The Village are refined but also practical and unfussy structures.

Openings

Openings should reflect the tradition of agricultural structures and generally be large and simple.

As well as the size of openings themselves, this can be helped by the thoughtful use of carefully detailed cladding, shutters, shading and canopies.

Creating secure boundaries

Designs must maintain secure perimeter block principles combining frontages and high quality boundary treatments.

To maintain a softened, rural and agricultural feel, threshold boundaries must be traditional estate rail fences, hedges or informal natural planting. Exposed rear garden boundaries must be walls, with hedges or planting to front.

The building line can vary in a composed way with typically up to +/- 2m variation. This variation is to allow for smaller, more rural, groupings to be formed. Variation can be increased in key locations e.g. to help create pinch points. Suggested locations for these are identified on the framework plan.

Added height and a simple brick gable capture the corner of a street The Avenue, Saffron Walden **Pollard Thomas Edwards**

Gable fronted homes with decorative brickwork, Abode **Proctor and Matthews**

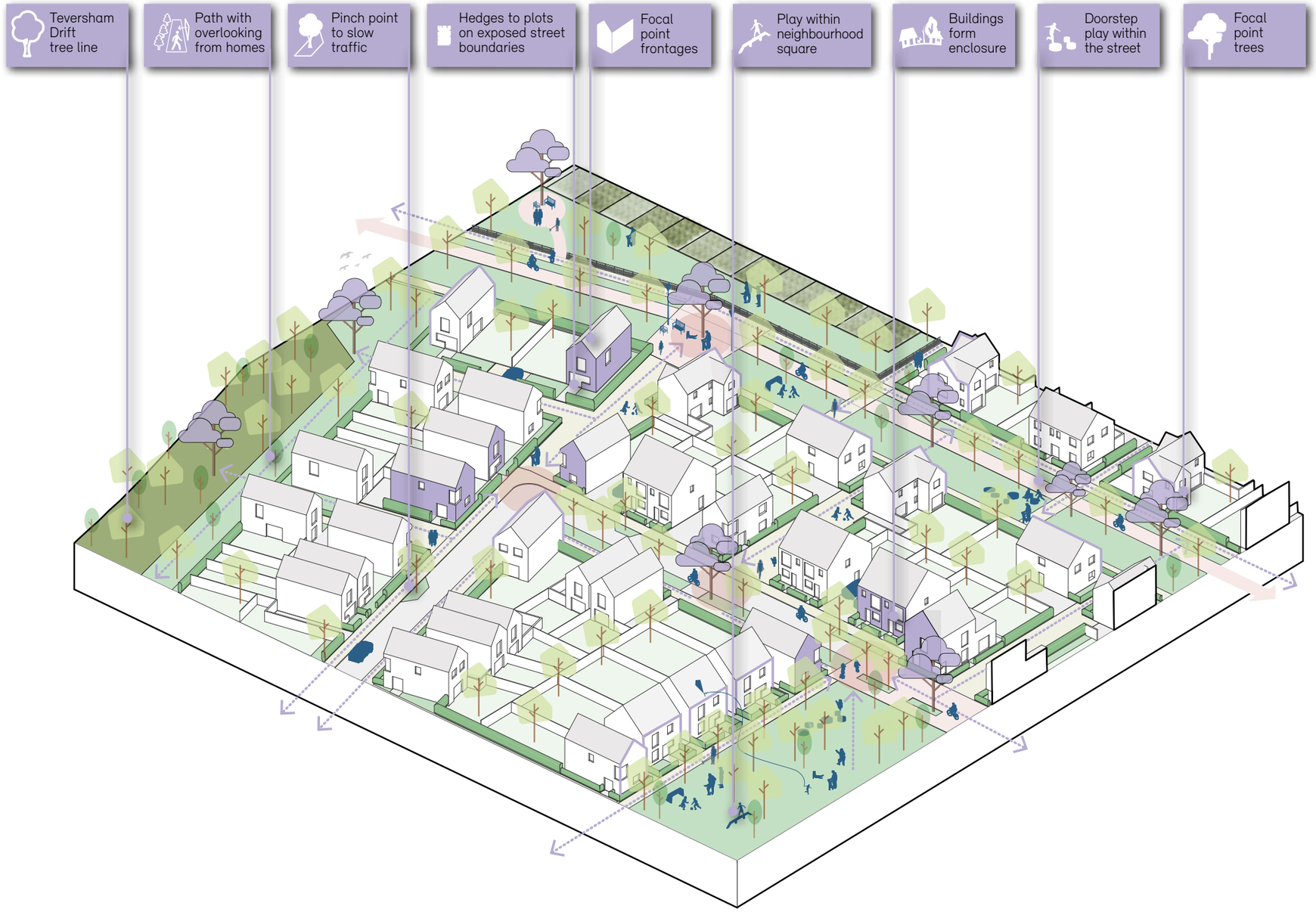
Threshold combining hedges and estate rail fencing The Avenue, Saffron Walden **Pollard Thomas Edwards**

Car free link overlooked by homes and defined by walls layered with hedges, Abode **Proctor and Matthews**

Contemporary multi-purpose cafe/community building provides key social amenity in the heart of Crystal Palace Park, **Chris Dyson Architects**

This diagram illustrates how an example area of The Village character area can be developed following the principles set out within the Code.

- Individual low-rise buildings are arranged together with hedge-lined lanes to form enclosure
- Clusters of buildings with focal point frontages are arranged at junctions
- Trees are positioned as focal points at the end of lanes.



The Village Perimeter Block

Local Centre

Market Square

The Market Square is a multi-use space framed by flexible community, retail, and mixed use residential uses. Together with the Village Green and primary school it creates the Local Centre, the most significant group of buildings and spaces within the development.

The co-location of these different uses within a small area is intentional. We want people to stay in these areas after shopping or school drop off pick up to support businesses and encourage social interaction.

When balancing priorities, the placemaking, social, and economic functions of the Local Centre are vital. A place-led design approach should be followed to prioritise its function by mitigating vehicle movement and reducing design speeds through e.g. changing surface treatments and emphasising a unified surface.

Building Design

The Market Square must be lined with special buildings and mixed-use frontages to create a family of agricultural and rural inspired structures that give an architectural and social focus to the development.

This family of buildings should be inspired by agricultural precedents with contrasts of texture, varied building heights, aisled frontages with wide openings, and distinctive silhouettes.

The community building must be a distinctive structure, located at a prominent focal point to act as a highly memorable building. It should be designed in the round and address both the Market Square and Village Green - acting as a hinge between the two spaces.

The local centre can provide up to 1850m2 of flexible mixed-use space including

Flexible community space with a hall up to 250m2

500m2 for a single retail food store, with its primary frontage facing the Market Square

To help ensure the Market Square is a focus of activity, all buildings that face onto the Square should provide flexible-use active frontages on the ground floor.

Market Square surface

The Market Square must have a unified surface treatment, extending to meet all the surrounding frontages and incorporating both the carriageway of the primary street and footways.

Demarcation of space will be required. Emphasis should be placed on the use of varying texture and low kerbs. Primary cycle routes should be red asphalt inkeeping with Local Highway Authority requirements.

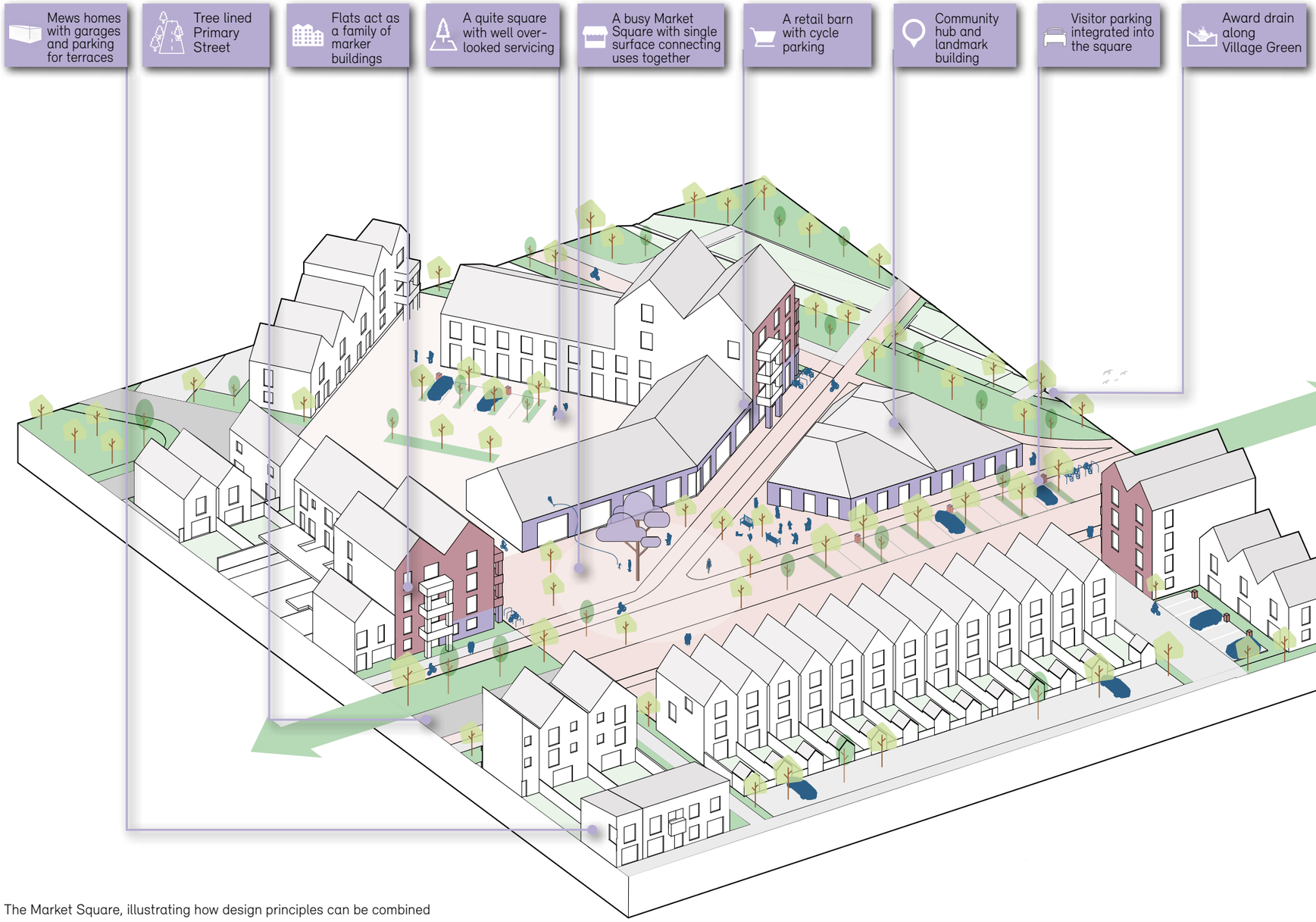
The Market Square must be capable of hosting pop-up uses and provide spill out space for surrounding non-residential buildings. Frontages should generally be pulled back at least 7m from the carriageway.

Parking

The square should include a small amount of visitor parking, intended to act as an EV-charging hub, alongside car club provision, convenient cycle, e-cycle and e-scooter parking should be clustered to form a mobility hub.

Visitor and staff car parking provision should be minimised. Any parking spaces located within the market square must be shared by all market square users.

For further details of car and cycle parking provision refer to the Movement section of the Code.



The Market Square, illustrating how design principles can be combined

Village Green

Where the Market Square provides a largely hard landscape with a focus for shopping and community events, the Village Green must provide a focus for play, natural space and SuDS landscape.

The Village Green incorporates the award drain and SuDS attenuation.

The Village Green must include formal play. Principle play structures should reflect the Village Character Area and can act as a focal point.

For further details of the design for the Village Green refer to the Public Spaces section of the Code.

The Primary School

The primary school must be given a green, natural, and play focussed setting by the Village Green. The school forms an important frontage onto the green and the entrance should be located near to the play space, and be given prominence to act a focal point.

The Primary School should follow the Village character area. As a large footprint building, its roofscape should be broken down into smaller elements inspired by agricultural buildings.

Staff parking and servicing for the primary school must be located away from the village green frontage and be hidden behind the building line. The layout of the local centre discourages typical parental preferences for car drop off and collection. Instead, the school is well connected to the proposed walking and cycle network, and nearby bus stop for the proposed bus route. This modal shift is intentional, and is a fundamental principle of promoting health and wellbeing through active lifestyles and sociability through the code.

As part of the travel plan to promote active travel, adequate short stay and wheelchair parking requirements and management for specific safeguarding should be established at detailed design stage - where needs will be better known, and can be incorporated into the on-plot school servicing strategy.

Entrances and windows must create active frontages along the Village Green frontage and at the key corner, which terminates views down the secondary street.

A generous arrival space should be created to the east of the Primary School, set back from pedestrian and cycle and route.

Design and Layout should ensure that key school facilities (ie. School hall, playing field etc) can be used, independently outside of school hours.

School boundaries should be secure, but the design of the eastern edge should allow for the character of the green corridor to permeate into the site, so that the school is set within landscape creating a soft edge that is sensitive its surroundings.

The school should incorporate a canopy over the entrance to encourage social interaction.

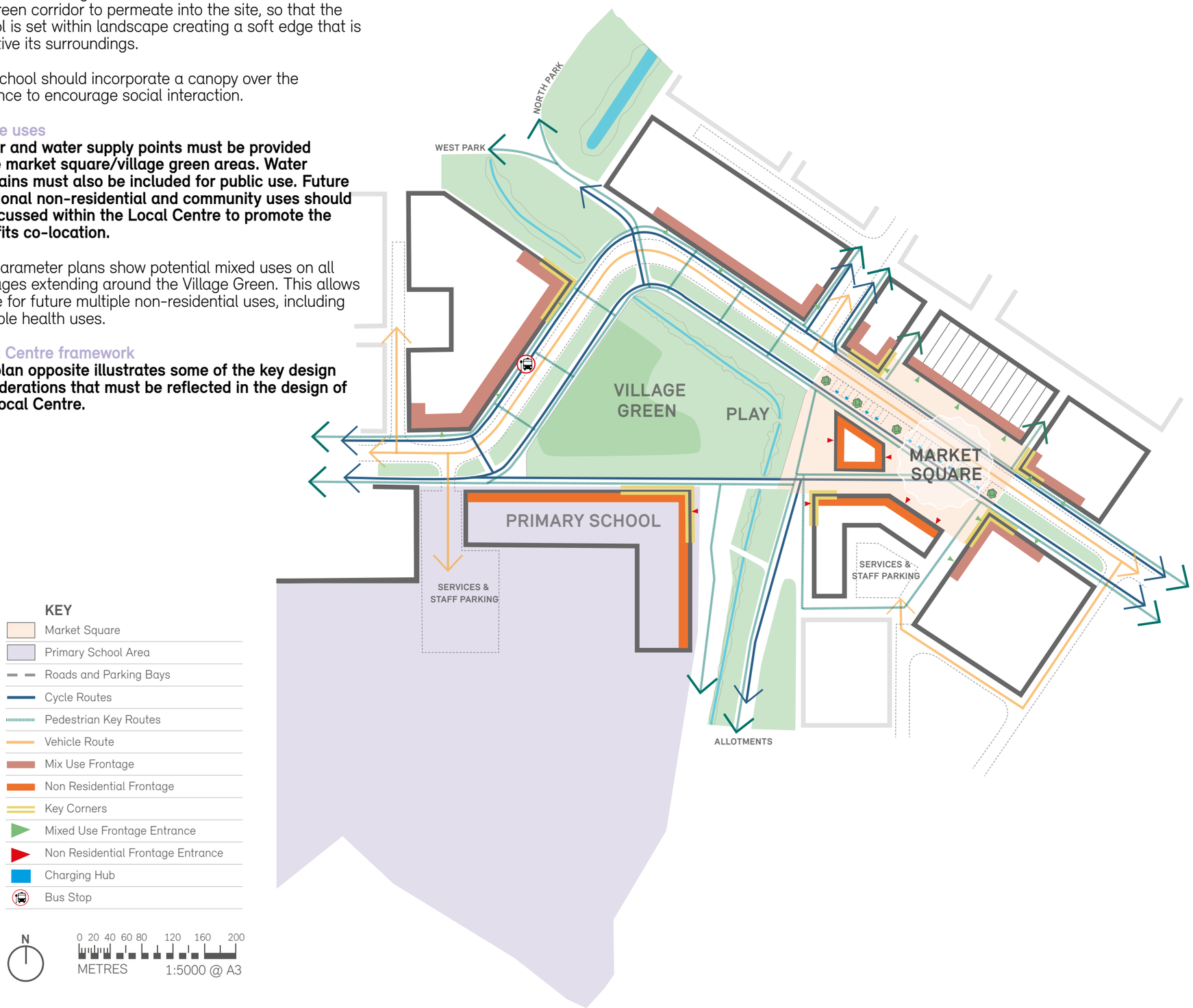
Future uses

Power and water supply points must be provided in the market square/village green areas. Water fountains must also be included for public use. Future additional non-residential and community uses should be focussed within the Local Centre to promote the benefits co-location.

The parameter plans show potential mixed uses on all frontages extending around the Village Green. This allows space for future multiple non-residential uses, including possible health uses.

Local Centre framework

The plan opposite illustrates some of the key design considerations that must be reflected in the design of the Local Centre.



The Gateway

The Gateway draws its inspiration from historic and contemporary residential areas of central Cambridge, with a network of ordered streets and mid-rise terraced houses and apartments.

The Gateway forms the central and eastern parts of the site and connects the local centre to the secondary school via The Ridgeway, which splits The Gateway into two neighbourhoods.

The edges of these neighbourhoods are defined by the surrounding infrastructure of streets and green spaces, all of which must be treated as key frontages.

The more formal streets that line key frontages lead on to less formal squares and small scale mews lanes.

Residential densities in The Gateway should range from 35-50dph.

The Gateway, Secondary School

The main entrance should relate to the Ridgeway and create an arrival space that is welcoming, inclusive and responds positively to the streetscape.

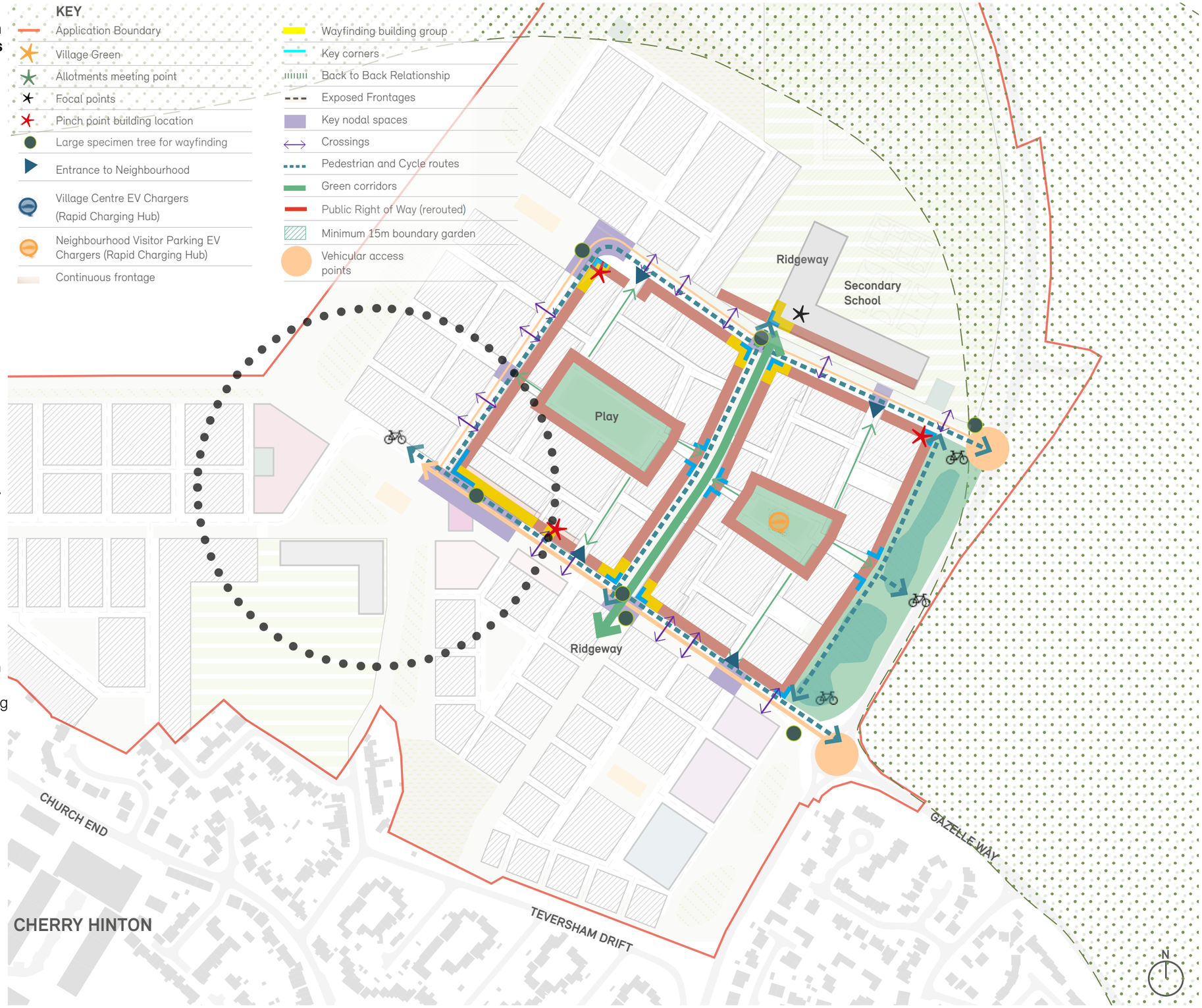
The school must reflect its important social and civic status, acting as a key focal point within the development.

The scale and massing of the building should be broken down into a series of volumes, which contribute positively to the wider wayfinding building group.

Parking and servicing must be set back from the key frontage, designed to minimise visual intrusion, and mitigated through landscape design.

The school boundaries should be secure, but the northern boundary should allow for the green belt to permeate into the site, so that the school is set within landscape creating a soft and layered green edge that is sensitive to longer views towards the site.

Design and Layout should ensure that key school facilities (i.e., School hall, playing field etc) can be used, independently outside of school hours.



The Gateway Framework

Built form and layout

Buildings in The Gateway should reflect residential town building forms and generally be arranged in terraces.

Roofs should be pitched or concealed behind a parapet.

Buildings should be composed to maintain slow knit streets and buildings, with minimal deviation in the building line.

Materials

Materials should largely be Gault brick, dressed with metal and/or stone details.

Important façades and focal point buildings should be highlighted with the coherent and elegant use of accent materials e.g. contrasting bricks such as red brick patterning.

As important as the materials themselves, is the care in which they are used. Terraced streets do not need to be identical but must be composed into groups. Decorative materials and textures must be used to help explain the buildings, provide focal points, and give homes identity, for example highlighting the ground floor and entrance.

Openings

There should be a hierarchy of openings, using scale and details to highlight ground floor entrances and defining windows.

Building façades should incorporate depth and modelling, including features such as bays and recessed entrances, particularly on important frontages.

Boundaries

Gaps between buildings and exposed residential boundaries that front onto public open space should be enclosed with walls.

Building line and thresholds

The building lines should be maintained with no more than +/- 0.5m variation.

Front thresholds on key frontages should be a low wall and hedge.

Thresholds on mews streets should be softened with a combination of low and climbing planting.

Terraced house with projecting bay and parapet, South Gardens, Elephant Park, Southwark Maccreanor Lavington

Terraced house with projecting bay Accordia, Cambridge Maccreanor Lavington

Formal street of villas with regular spaces between buildings, Knights Park Pollard Thomas Edwards and Alison Brooks Architects

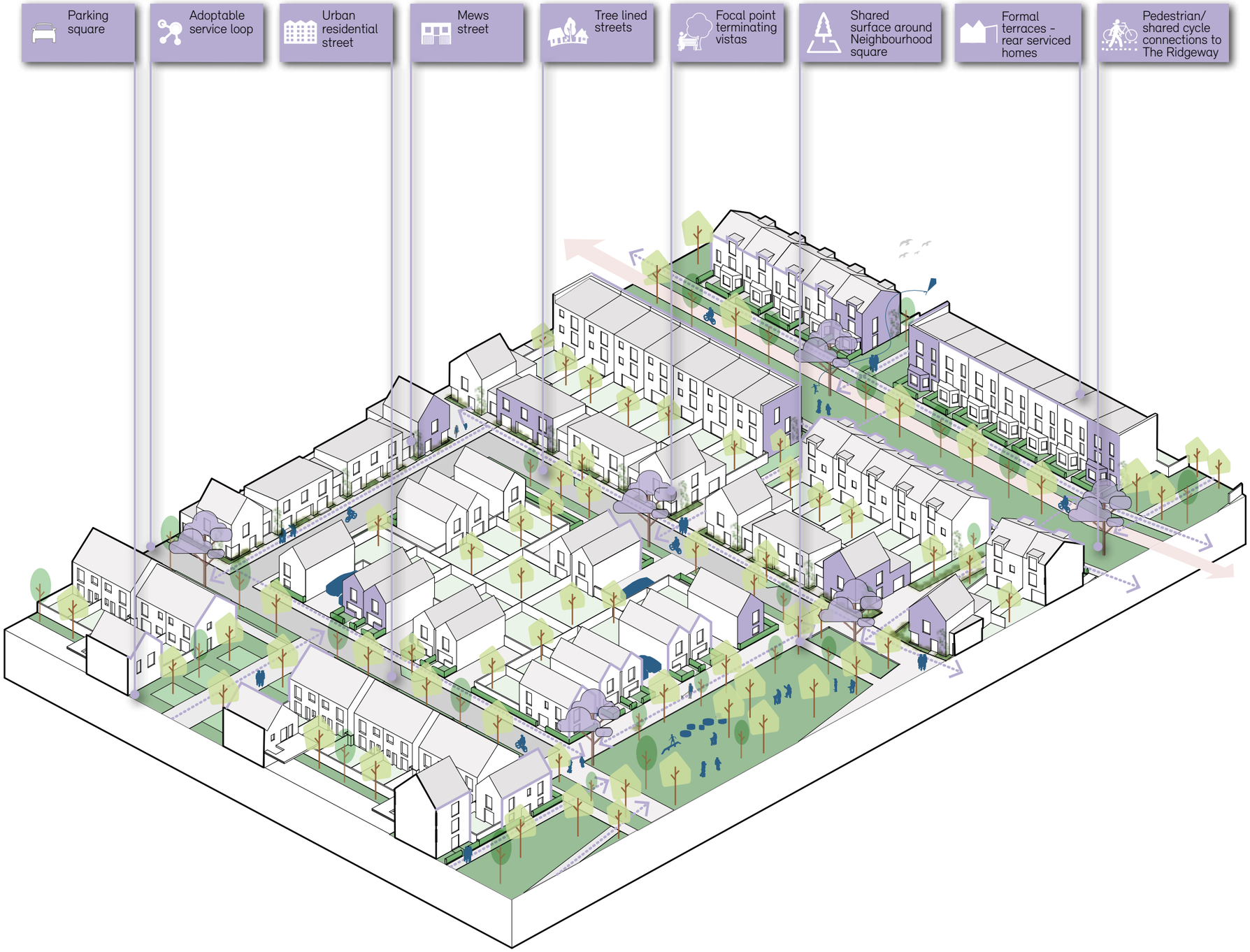
Mews street with upper floor terraces, Knights Park Pollard Thomas Edwards and Alison Brooks Architects

Pitched roofs and changing brick tones identifying individual homes. Marmalade Lane, Cambridge Mole Architects

School facing on to public space, Burntwood School, Wandsworth AHMM

This diagram illustrates how an example area of The Gateway Character Area can be developed following the principles set out within the Code.

- Terraces of buildings line the key frontages
- Mews homes and squares provide parking for terraced houses
- Development becomes less formal behind the key frontages.
- Variety of roof forms



Gateway Perimeter Block

A car free link between streets with a 2.5 storey maisonette typology with individual front doors to homes addressing the corner. Goldsmith Street, Norwich **Mikhail Riches**

Parkside Quarter

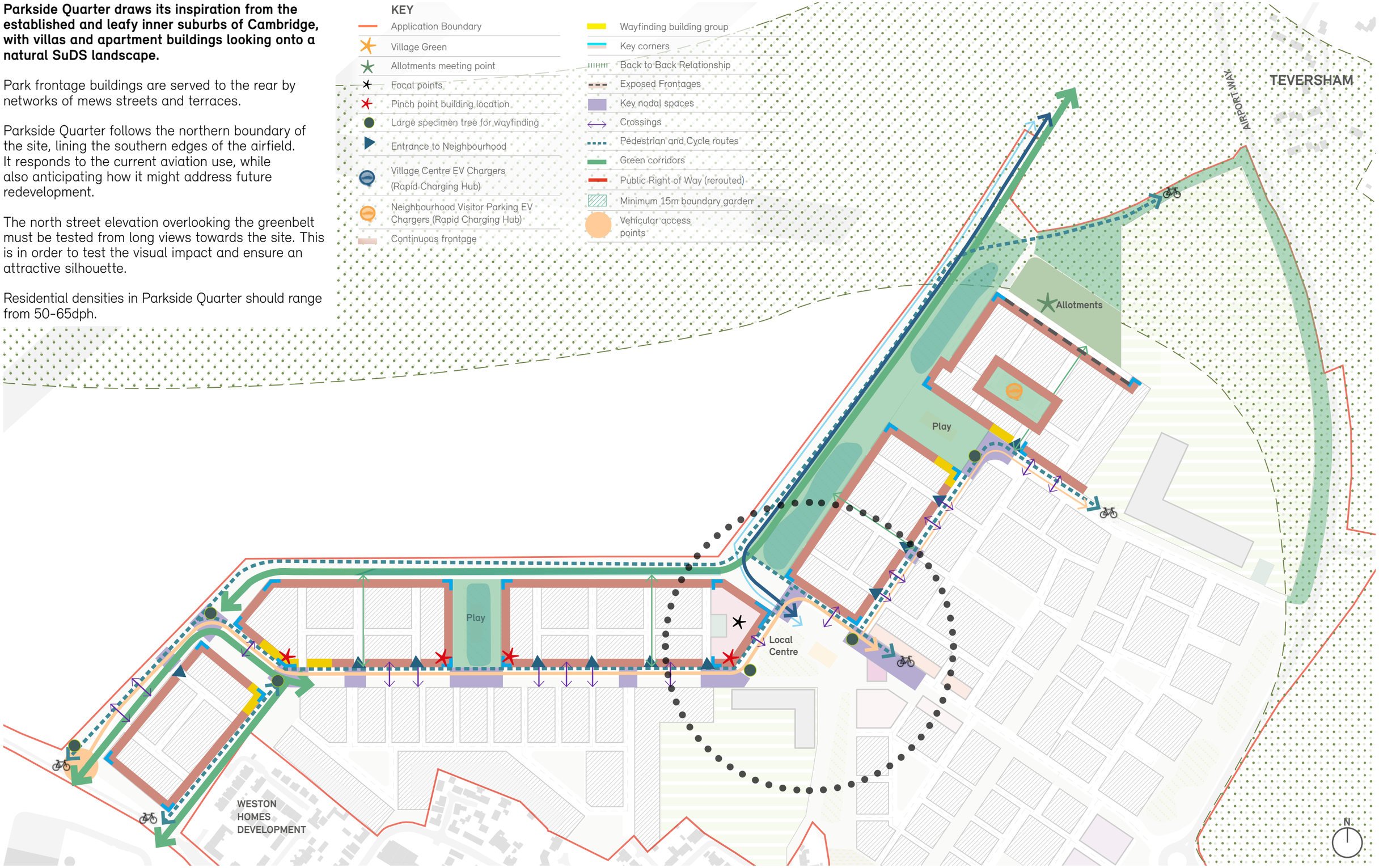
Parkside Quarter draws its inspiration from the established and leafy inner suburbs of Cambridge, with villas and apartment buildings looking onto a natural SuDS landscape.

Park frontage buildings are served to the rear by networks of mews streets and terraces.

Parkside Quarter follows the northern boundary of the site, lining the southern edges of the airfield. It responds to the current aviation use, while also anticipating how it might address future redevelopment.

The north street elevation overlooking the greenbelt must be tested from long views towards the site. This is in order to test the visual impact and ensure an attractive silhouette.

Residential densities in Parkside Quarter should range from 50-65dph.



Parkside framework

Built Form and Layout

Buildings in Parkside Quarter should reflect the established leafy inner suburbs of Cambridge.

Roofs should give a regular spacing of gables onto park edges.

Bays and other projecting features should be included to create modelling with a sense of rhythm and order.

Materials

Materials should focus on a masonry palette.

Accent materials should include stone and patterned brickwork.

Openings

Openings should emphasise views onto the park edges and should be large and simple.

There should be a hierarchy of openings, using scale and details to highlight ground floor entrances and defining windows.

Boundaries

Gaps between buildings and exposed residential boundaries that front onto public open space must be enclosed with walls, with hedges or planting to the front.

Building Line and Thresholds

The building lines should be maintained with no more than +/- 0.5m variation.

Front thresholds on key frontages should be a low wall and hedge.

Thresholds on mew streets should be softened with a combination of low and climbing planting.

Noise

While the airfield is still in operation, noise must be mitigated to allow the comfortable ventilation of buildings and use of amenity spaces.

Noise control should be achieved with an emphasis on the use of passive design principles.

Height

Taller buildings of 3-4 storeys should be used to line the Parkside edge.

This can be achieved through a mix of apartments and villa houses.

Rhythm of gables overlooking green frontage, Mosaics (Barton Park), Oxford **Pollard Thomas Edwards**

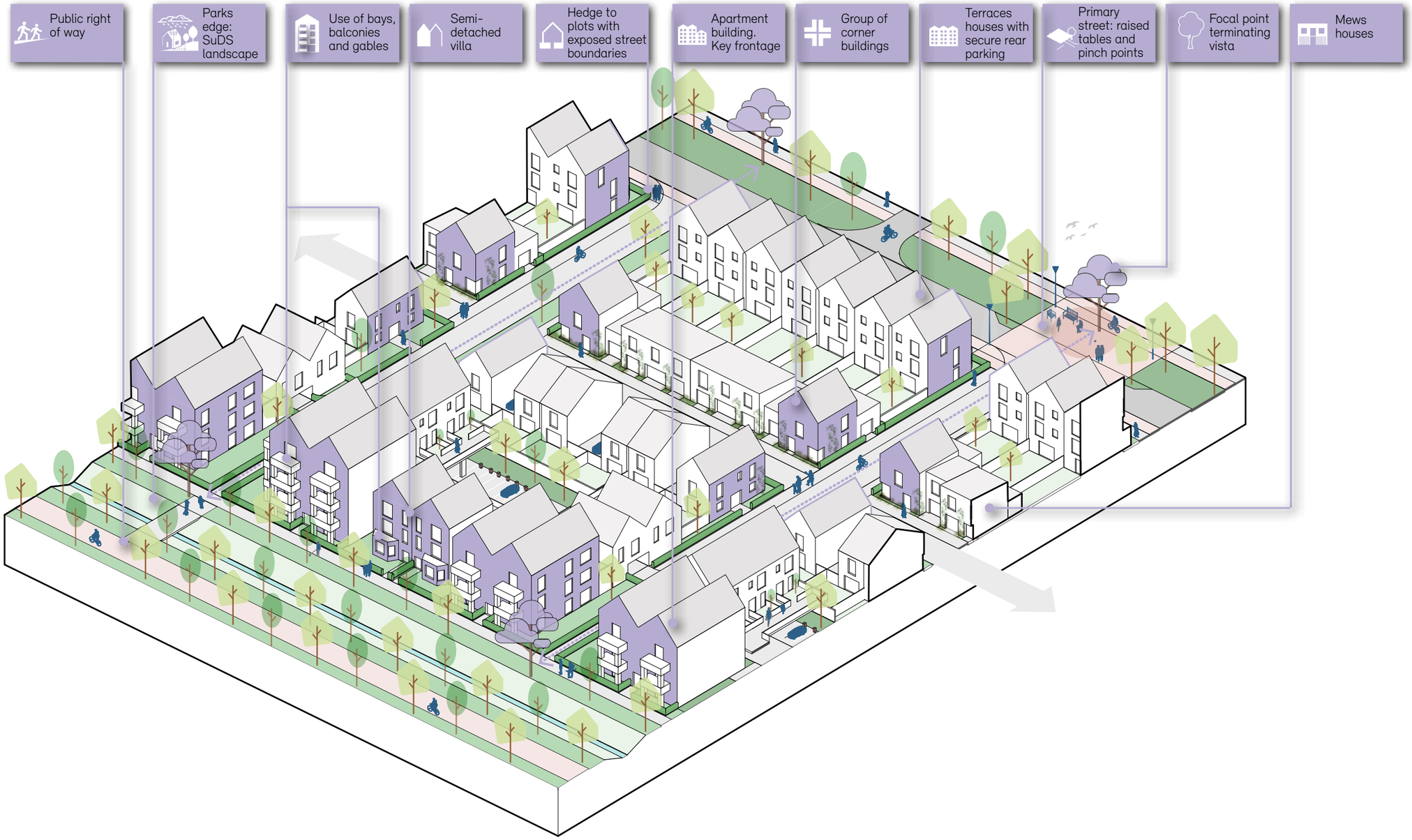
Focal point gables, Woodside Square, London **Pollard Thomas Edwards**

Contemporary gable detailing

Historic Cambridge terrace of gabled villas

This diagram illustrates how an example area of The Parkside Quarter can be developed following the principles set out within the Code.

- Gables and bays on frontages overlooking park edges
- Mews streets behind main frontages
- Development becomes less formal behind the key frontages.
- Apartments integrated into wider perimeter blocks.
- Villas and apartments create varied but strong compositions along key frontages.

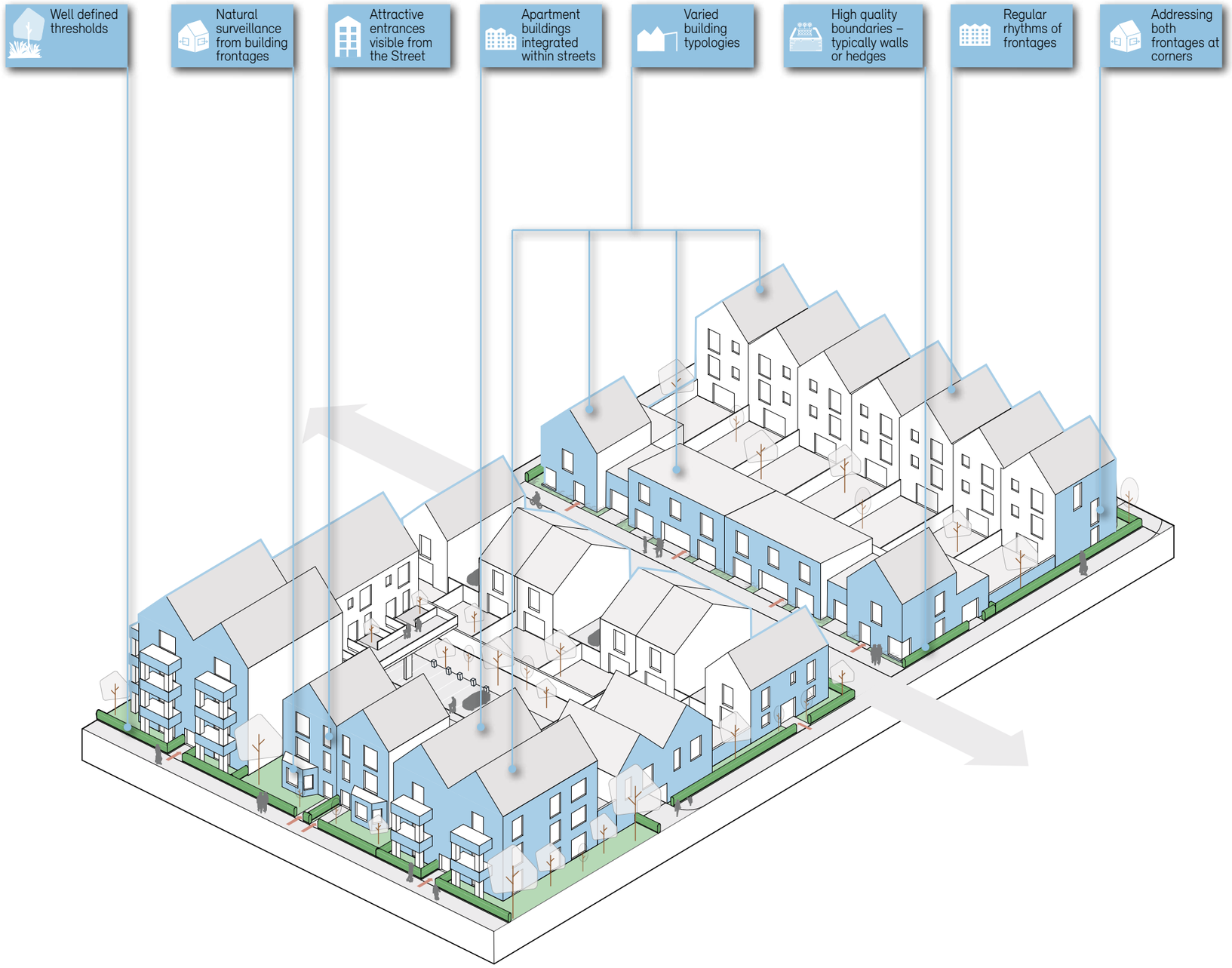


Parkside Perimeter Block

Gable fronted villas overlooking a mixed use SuDS landscape
Mosaics (Barton Park), Oxford **Pollard Thomas Edwards and Alison Brooks Architects**

7 Built Form

Land for development is precious, and design will need to use space thoughtfully. The use of compact and coherent, designs, based on traditional close-knit networks of streets, will help reduce land lost to development and keep walking distances short, sociable, and memorable.



A typical residential perimeter block, with varied typologies and street frontages on all sides

Compact development and density

Compact development makes efficient use of resources and supports services to be provided within walking or short cycling distances that encourage active lifestyles and reduce car dependency. The location of the local centre means that everyone has the potential to walk to the shops, primary school and community facilities within 10 minutes. To ensure the principle of the walkable neighbourhood is maintained, proposals must assemble the site wide structuring elements as set out in the code. Compact and sustainable densities must only be delivered using high quality development that conforms to the Design Code.

Perimeter block design

To promote walking and social connections, neighbourhoods must be formed using small perimeter blocks with frequently spaced and well overlooked streets and lanes.

Perimeter blocks must be lined with coherent building frontages, joined together by walls or hedges to give active frontage, enclosure and natural surveillance.

On two storey dwellings there should be a minimum 18m back-to-back distance between the windows of rear habitable rooms. This distance must be greater on three storeys or more. To promote good street design, this distance may be reduced in places, but this must be justified through careful building design, for example with windows arranged to avoid direct overlooking.

There should be a minimum 18m back-to-back distance between the windows of rear habitable rooms. To promote good street design, this distance may be reduced in places, but this must be justified through careful building design, for example with windows arranged to avoid direct overlooking.

Streets

Street designs must bring together landscape (including sustainable drainage systems), movement and buildings into one design.

Streets must be defined at their edges by buildings and landscapes to make them easy to navigate, with memorable features and vistas to make them recognisable.

Street vistas should be terminated by focal points e.g. special building frontages or trees.

Building typologies and heights may vary within a single block or on either side of the street, to respond to adjacent streets and public spaces. Their proportions, scale, and rhythm should be composed in groups to show how buildings on either side of the street successfully relate to each other.

Apartment buildings should be integrated into the street scene. The overall massing must be manipulated to moderate the bulk. Volumes and compositions should aim to mitigate massing. Apartment buildings should focus on prominent frontages and street corners, where their additional height can help provide focal points.

Corner buildings must treat both elevations as principle frontages. When brought together these will create a cluster of corner designs at the junctions and intersections of the masterplan. The relationship between these corner buildings will need to be carefully considered, with entrances and windows arranged to animate each street.

Further guidance on street design and technical requirements can be found in the Public Spaces section.

Building lines

Building lines are an important part of street character. Building lines should generally be consistent but may be varied in conjunction with landscape and highways design to compose street designs e.g. creating pinch points, focal points and wayfinding building groups.

Further guidance on building lines can be found within the Identity section.

Height and Massing

The parameter plans provide a broad starting point for building height. However these heights should be regarded as maximums, not targets.

Height and massing must respond to framework principles including primary frontages, street corners, open spaces, and wayfinding with opportunities for focal points.

Variation in heights should emphasise individual homes, buildings, or uses. Continuity of heights should be used to emphasise an important building group – such as a terrace of houses.

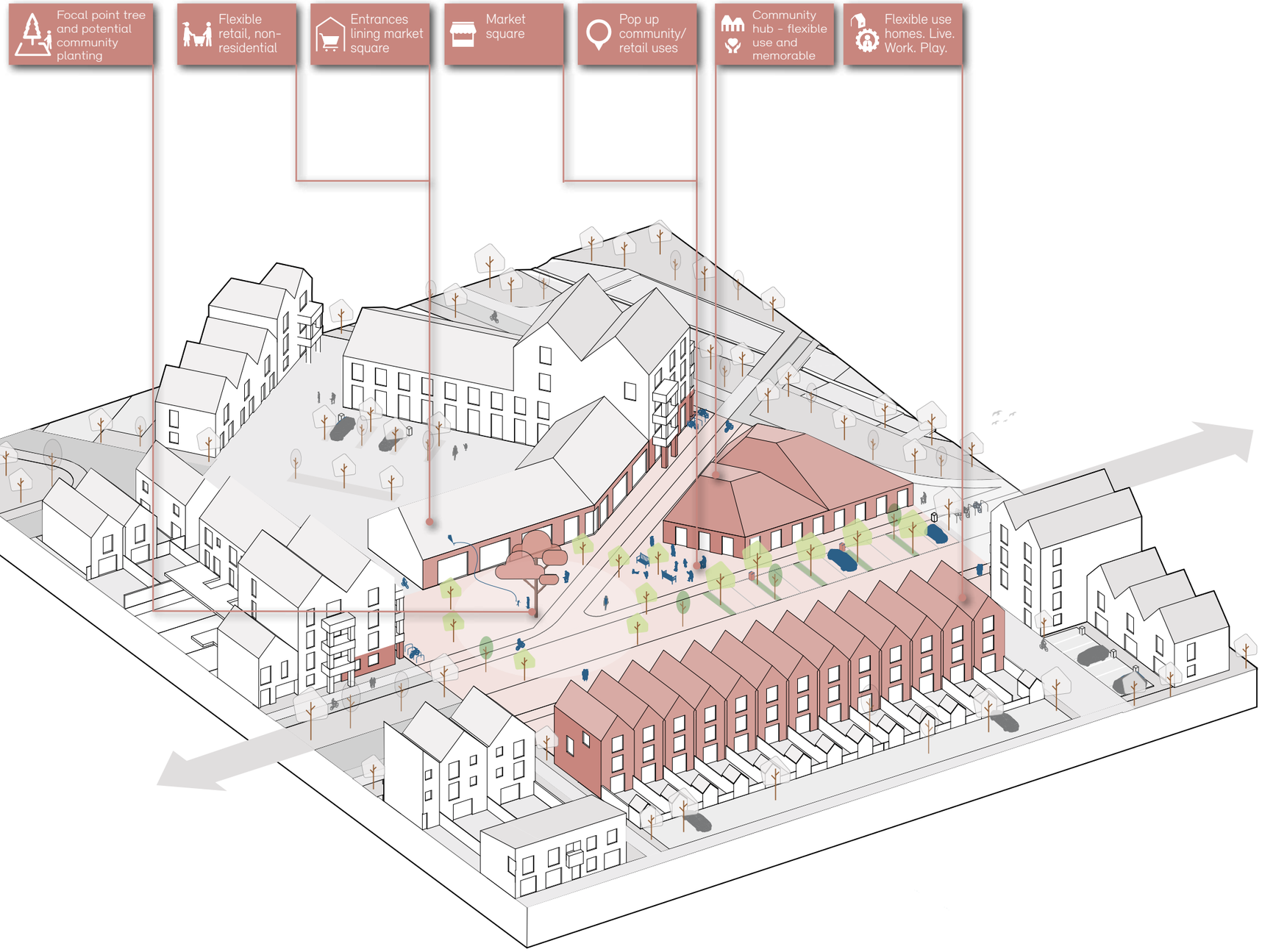
Tall apartment blocks and other buildings with large footprints should be modelled to create a varied roofline and avoid a bulky silhouette on the skyline.

Further guidance on Height and Massing can be found within the Identity section.

Memorable features and vistas. The Avenue, Saffron Walden
Pollard Thomas Edwards

8 Uses

Designs must encourage social interaction and bring people together. LNCH will provide schools, shops and community facilities, alongside a diverse mix of homes for different age groups and incomes. 40% of all homes will be affordable tenure, mixed across the whole development, and be designed to be indistinguishable from private sale.



Market Square Axonometric

Co-location and coordination of uses

Non-residential and mixed-use buildings and public space must be brought together to create a focal point for the whole community. The main focus for this co-location of uses will be within the village centre. Further guidance on the design requirements of the village centre can be found within the Identity section.

Mixed use buildings and spaces must be carefully considered to avoid loss of amenity for homes.
Co-location of uses should be designed to avoid conflict with neighbouring uses in terms of operational noise, servicing and ventilation.

Bin storage, cycle parking, deliveries and other services must be considered from an early stage to be carefully integrated, and should be located away from the main frontages.

Where village centre houses can incorporate a flexible residential/commercial front room on the ground floor, these should be designed to work with minimal adaptation.

The primary school must be an integral part of the village centre, and front onto the village green. The secondary school must align with the street frontage.

The location of the retirement living should be located as close to the local centre as possible and no further than a 5 minute walking distance (400m) from the local centre where key community infrastructure is concentrated.

Tenure

The development will provide 40% affordable homes by unit. Each neighbourhood must be designed to contain a mix of different homes to support a diverse community.

Affordable homes must be integrated with market homes and not be identifiable through the quality of their materials or details.

Affordable homes must be either pepper-potted or grouped within small tenure-blind clusters which should be of no more than 25 homes.

The expectation is that affordable requirements are delivered proportionally on a phased basis.

Homes for later living

The outline approval includes up to 90 bed spaces for retirement living. If specific homes for older people are provided they should be located within the local centre. There are significant potential health and wellbeing benefits to this collocation. It can help reduce risk of loneliness, isolation, and transport dependency, by encouraging residents to be active and to use, and thereby support, the new shops and community spaces. Health and wellbeing facilities built for older people may also be offered to non-residents, helping to sustain their long term provision.

Retail Unit Design

Shops must be designed so that windows do not become blank or blocked by signage. Shops must have a strong sense of transparency and present active edges onto the market square. Signage zones should be integrated.

Aisled building openings onto public space, Market Hall, Moutiers les Mauxfaits, France

Mixed use agricultural inspired building with spill-out space, Crystal Palace Park, London

Homes with flexible ground floor uses, Medieval merchant's house

St Luke's Community Centre yard, London

St Luke's Community Centre yard, London

Eccleston Yards, London

Examples of flexible building typologies and uses of outdoor space that can be successfully combined

Cultural sociability

A cultural sociability framework identifies the key social and cultural centres across the site and considers how these will connect to ensure integration of the spaces to be enjoyed by local people and how the adjoining public spaces and landscapes will seek to support and enhance the same and create community cohesion.

- LNCH will be integrated with the local area. A new tree-lined primary street will link between Coldhams Lane and Cherry Hinton Road. The development will be providing new schools, shops and community facilities for the use of the whole community
- Designs will respond not only to the distinctiveness of individual buildings but take care to understand the way that they come together to create a sense of place
- By using compact forms of development, they should aim to reinforce surrounding area by enhancing local transport, access to quality local facilities and community services.

Further information on the requirements of public spaces to contribute to cultural sociability can be found on page 50.

KEY

- Site boundary
- Key local centres
- Neighbourhood centres
- School buildings
- Community infrastructure buildings
- Key sociability nodal connections
- Customisable Homes

N

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Cultural Sociability Framework Plan

Supportive public spaces

The culture and sociability considerations across the site will deliver a variety of high quality spaces for cultural enjoyment and social interaction. It will seek to ensure that public spaces act to support and enhance both the social uses within the buildings and those informal community uses around them.

- Public spaces which serve community facilities should provide adequate opportunity to stop and rest
- Within resting spaces, trees and structures should be provided to allow for shade and shelter
- Public spaces should provide flexibility in use and allow for varying activities to take place within the same space
- Seating should be provided along all key pedestrian routes
- Key community focal points should be flexible in nature and public realm finishes should endeavour to create spaces that can be used to cater for events alongside the everyday uses
- Spaces for markets or community gatherings should be catered for adjacent to the focal buildings namely the schools and amenity buildings
- The masterplan focusses on delivering a mixed-use local centre including: a primary school, community facilities and commercial units and a secondary school which will be served and supported by this element of the Code
- Proposed outdoor uses must be designed and managed to avoid unacceptable noise impacts for surrounding homes.
- Community cohesion should be encouraged and supported and the designs should allow for key local cultural centres to emerge within the development.

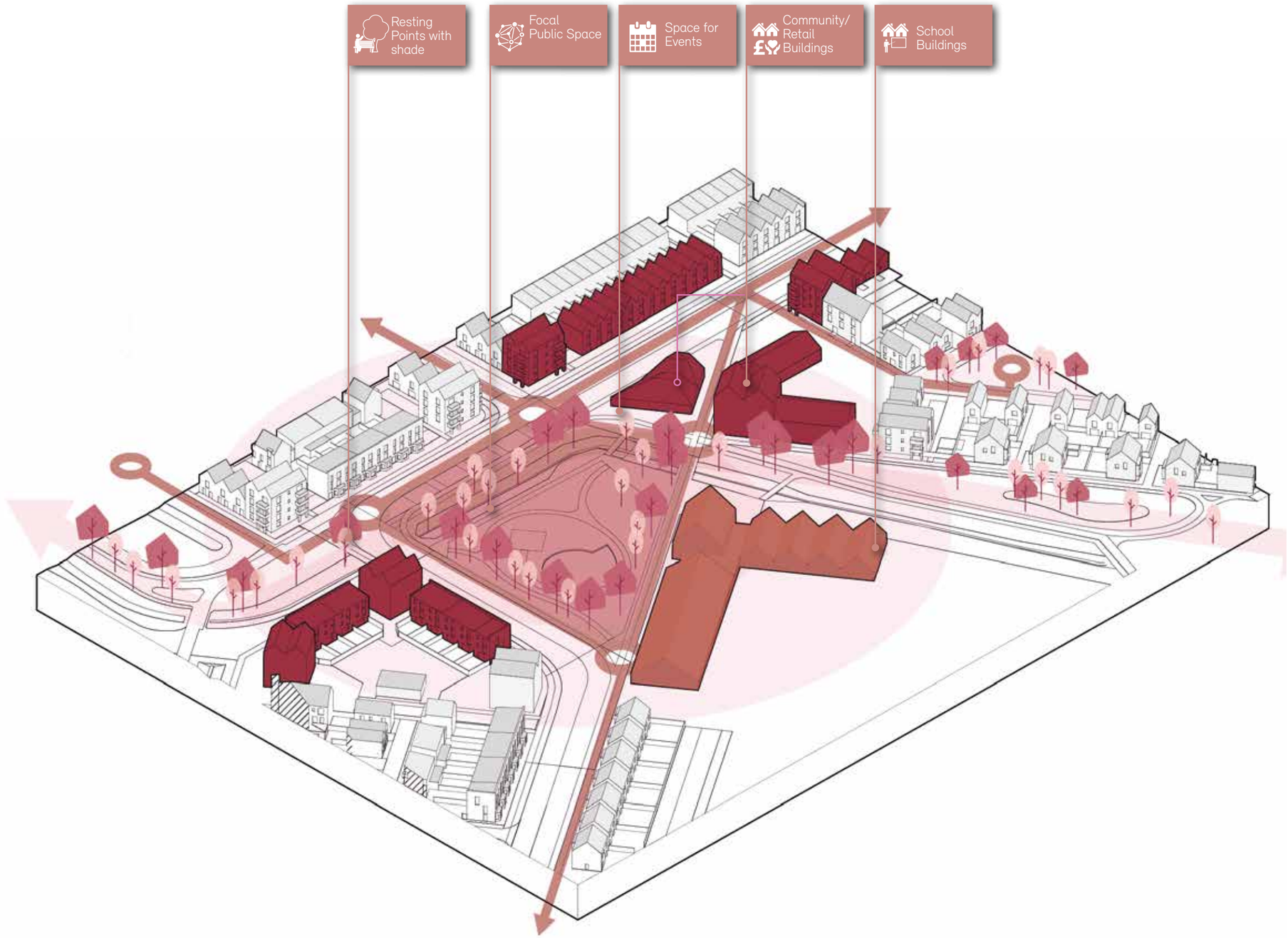
Schools

Both schools must be designed and managed to acknowledge the vital role that they play in the cultural and social life of the development and surrounding area.

Parents dropping off and collection children from the primary school will be encouraged to extend their time in the local centre by the adjacent shops, play, and community spaces.

Parents and children must be encouraged to walk and cycle to and from school, with convenient and secure cycle parking for all users.

Schools must identify ways, including any access to playing fields established with outline planning, that they can provide out of hours resources to support the surrounding area.



9 Homes and Buildings

Building designs must reflect the local character and homes will respond specifically to their location, aspect, views and neighbours. They will be low carbon, accessible, support sustainable lifestyles and be adaptable to change.

Typical street blocks providing a range of typologies

Typologies and custom homes

Typologies mix

A mix of typologies should be used to create streets. These should add to the character of the development, and help to create well composed, active and varied street scenes.

Buildings should have sloping roofs. This is to reflect the traditional appearance of buildings in the local area. Homes and buildings must be designed to relate well to their plot – including aspect, views and place in the masterplan.

Customisable homes

At least 5% of the market homes must be customisable at point of sale. This can include alternative options for internal layouts and finishes, as well as external finishes that can be purpose built for purchasers. All resident choice options must meet the requirements of the Design Code.

Customisable homes should be distributed across the development and located on principal frontages or as focal points. These homes do not need to be evenly delivered across phases.

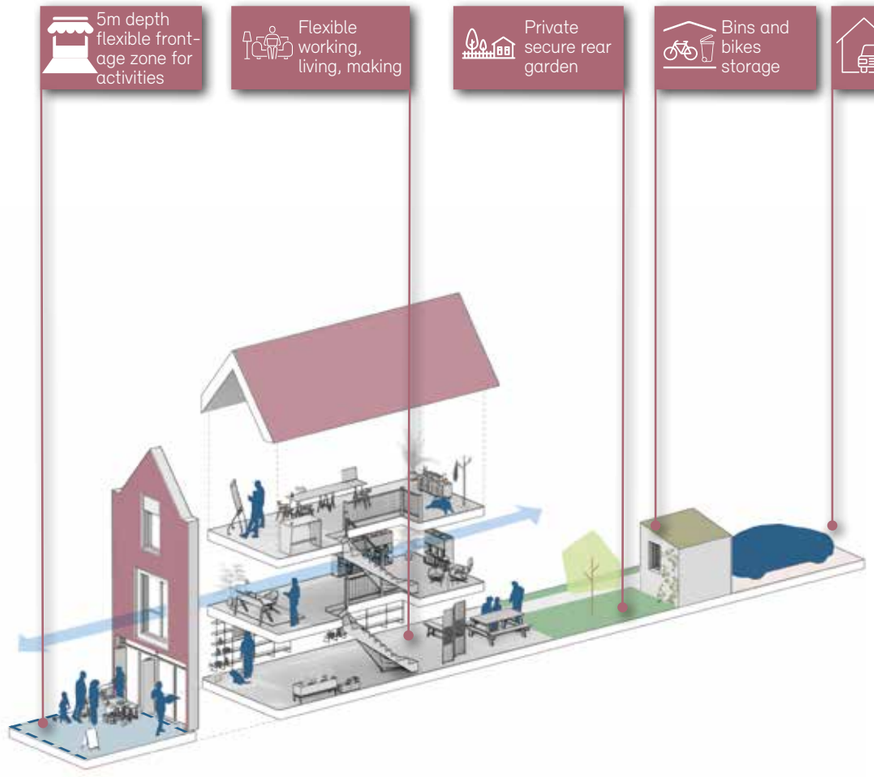
Potential locations for customisable homes have been illustrated on the diagram on page 84. It is envisaged that a large proportion of the customisable homes will be located in the village centre. Further guidance on building design and combining typologies can be found in the Built Form section.

Space and comfort

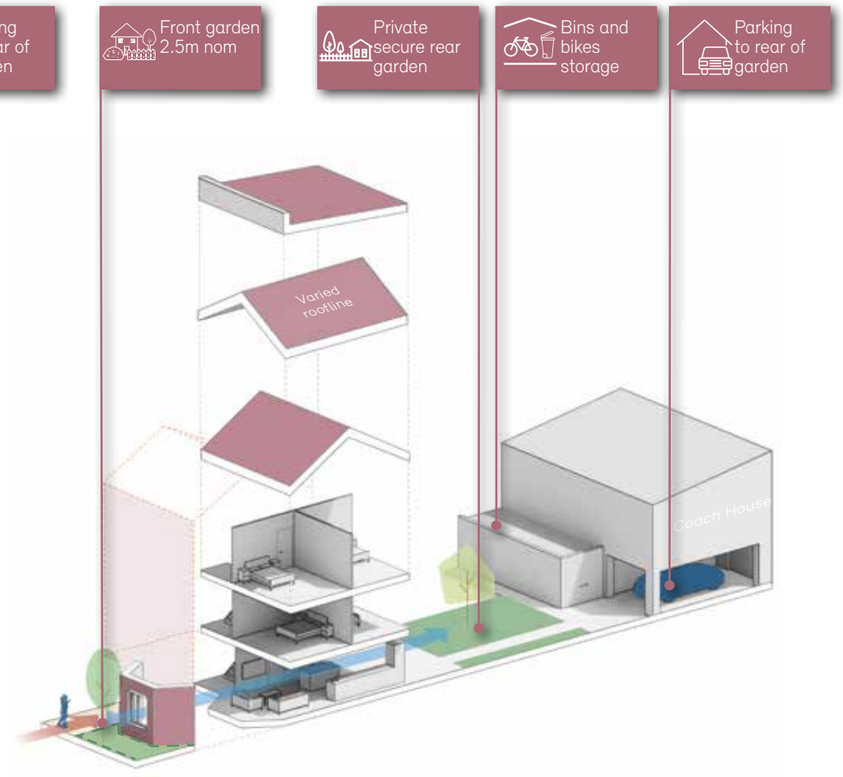
All homes must have good direct access to usable private or private shared amenity space.

- Houses and maisonettes should have private rear gardens or upper floor terraces
- Flats should have access to a balcony, private terrace or ground floor patio area
- Boundary treatments must provide a reasonable degree of privacy from surrounding homes and streets
- Projecting balcony enclosures onto public spaces should be partially screened to help reduce visible balcony clutter.
- Acoustics and impacts of existing traffic noise should be considered at the outset, maximising the amenity of external areas and the ability of occupants to open windows and / or have fixed natural ventilation pathways such as acoustic louvres without unacceptable noise.
- Great care must be taken to the design of the thresholds to create adequate levels of privacy for ground floor apartments. Further guidance can be found in the Identity section.

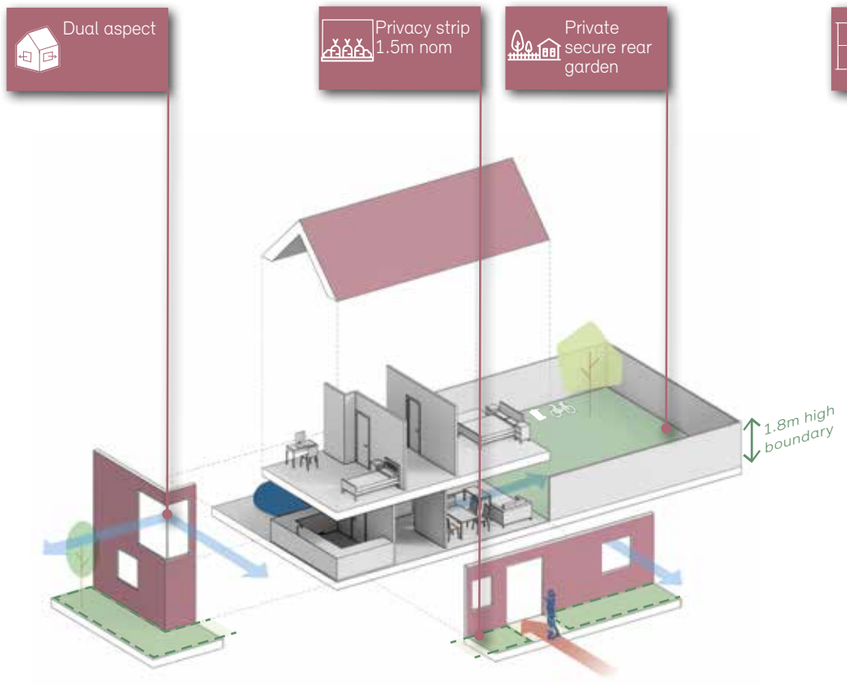
Homes and communal areas must meet or exceed all the requirements of the Nationally Described Space Standards.



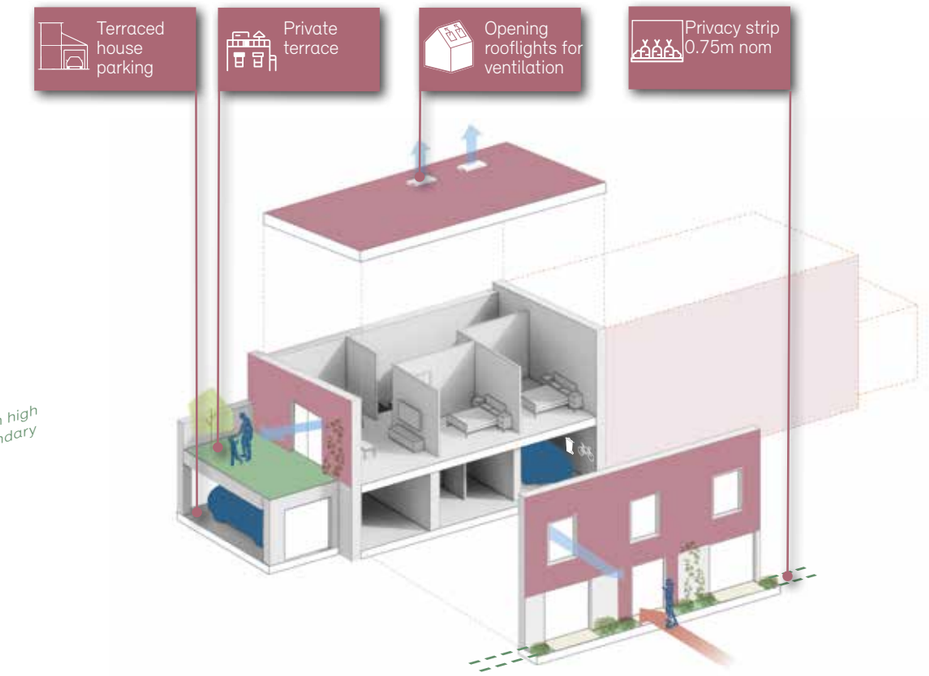
Flexible homes for living and working



A terraced house with design variations



A corner house



A coach house with upper floor terrace

Accessibility

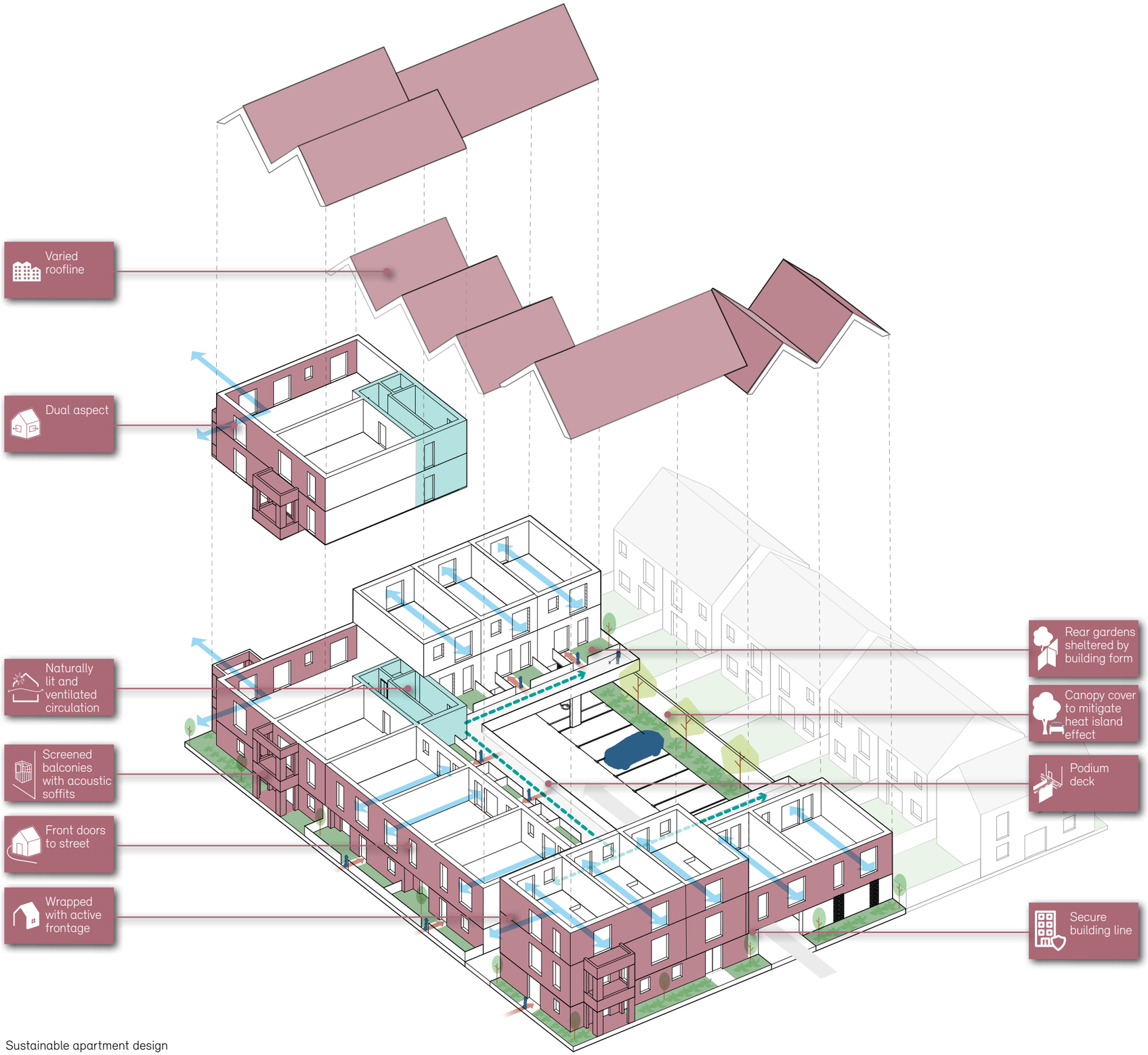
Accessible buildings are a benefit to everyone who uses them. All the buildings must be accessible and easily adaptable.

- 5% affordable tenure homes must either provide, or be capable of providing, Part M4 Category 3 wheelchair accessible homes
- Up to 5% of homes may provide a principle storey of M4 Category 2 living accommodation, located above an entrance level with no habitable rooms - without the requirement of a lift. This is to allow flexibility for a small number of mews houses, half-houses, custom build and other innovative typologies.
- All remaining homes must meet all the access standards for Part M4 Category 2.
- All letter boxes should be located in appropriate secure locations to ensure they are accessible and usable by all users. The height of letter boxes should be above 0.70m.

Natural light and ventilation

All buildings must be designed to promote the use of natural light and ventilation. This should include:

- Maximising opportunities for dual aspect accommodation. Deck/gallery access for apartments can be an efficient way of achieving this and should be considered at the outset.
- Maximising natural light and cross-ventilation
- Shared circulation spaces in apartment buildings that are naturally lit and ventilated
- Minimising the use of mechanical ventilation and having openable windows (except where noise levels will not allow this)
- Further guidance on the requirements for natural light and ventilation can be found within the Resources section.



Sustainable apartment design

Apartment building entrance integrating signage and convenient cycle parking
Charter Place, Hounslow **Pollard Thomas Edwards**

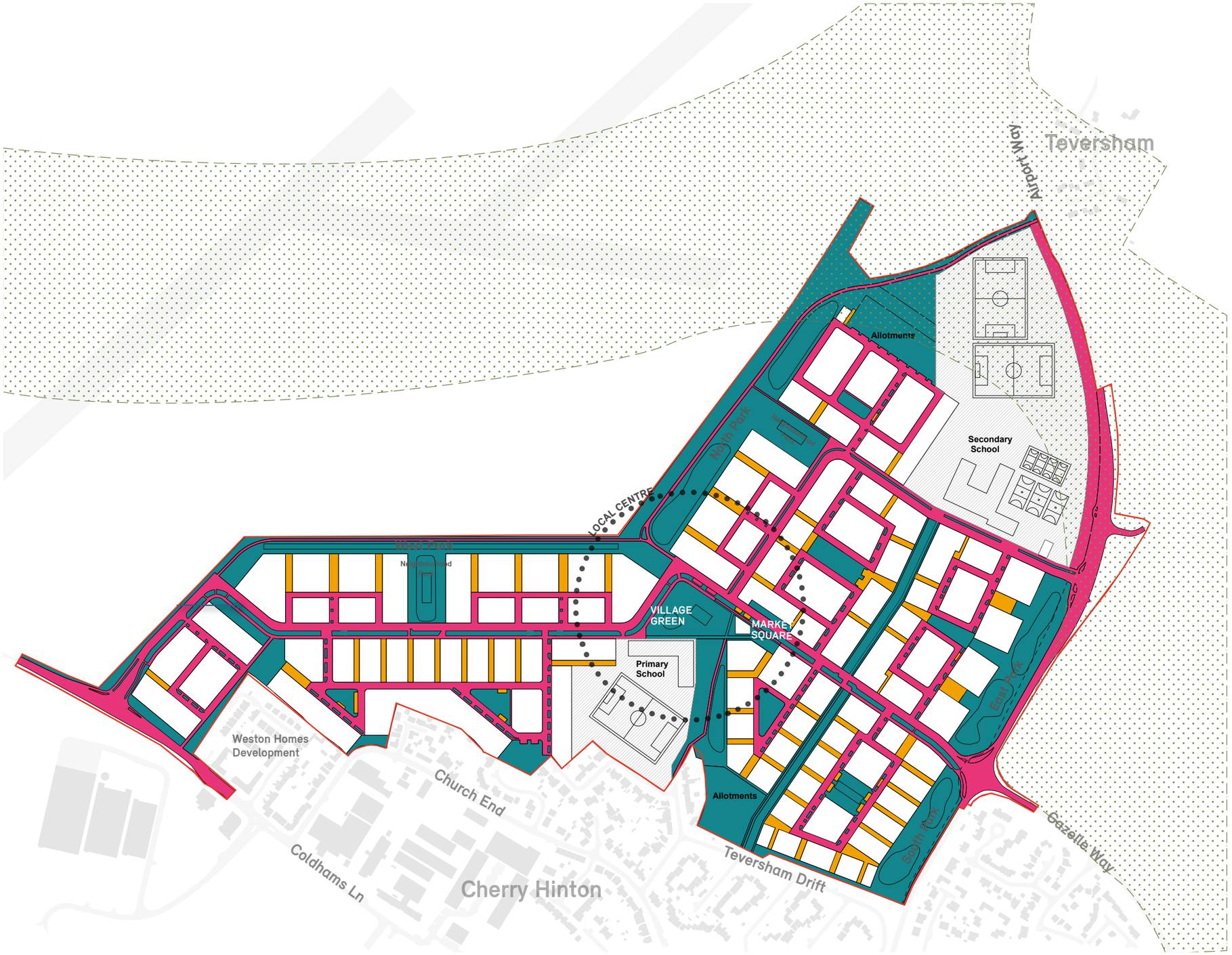
Stewardship

Communal growing spaces. New Ground Cohousing, Barnet **Pollard Thomas Edwards**

10 Lifespan

The development will put future stewardship in place to sustain its beauty over the long term. Responsibility for the streets, trees and green spaces will be split between the local authority and planned management trust, taking care to avoid unfair service charge costs for residents.

Landscapes must be designed to ensure safety at the airport – but will be adaptable to allow further landscape improvement, such as more habitat for birds, if the planned removal of the airport goes ahead.



KEY

- Application Boundary
- **Highway Authority** - Carriageway, footway, cycle lanes and strategic street trees for traffic calming with build outs
- **City Council** - Living landscape verges & Public Open Spaces
- **Management Company** - All other streets and trees
- **Development Parcels**

N

0 20 40 60 80 120 160 200

METRES 1:5000 @ A3

Illustrative adoption framework. Note: the Adoption Plan is illustrative but accurate at the time of publication.

Adoption diagrams

The diagrammatic sections on the following pages have been developed in consultation with the Cambridge City Council (CCC) and County Highways. They are intended as illustrative and reflect "in principle" discussions for acceptable adoptions by both authorities, and how they would ensure no "gaps" in responsibility and care of the planned environment. Although accurate at the time of publication, adoption requirements may change dramatically over the course of the development's build out.

Highways

Most streets and routes must be designed to allow future adoption by the County Highways Authority (CHA). This includes:

- All primary streets - including carriageways, footways, and cycle ways
- All secondary streets - including carriageways, footways, footpaths and cycle ways.

The Highways Estate Road Construction Specification (HERCS, August 220) provides guidance for the design of adopted streets.

Tertiary streets

Adoption should focus on providing looped routes within neighbourhoods for servicing and waste collection.

The tertiary movement network and street design diagrams set out within the Code are illustrative, but have been developed in close collaboration with the Cambridgeshire County Councils Development Management Team to ensure that the principles they illustrate can meet highways requirements.

Key principles for achieving adoption in Cambridgeshire include:

- Electric Vehicle charging must not be located on any adopted highway
- No SuDS will be accepted for adoption
- Street trees can only be considered for adoption where they perform a highways function
- All proposed finishes must be approved by Highways.

Street landscapes

Wherever possible, street trees and planting should be designed to allow future adoption by the city council. This should Include:

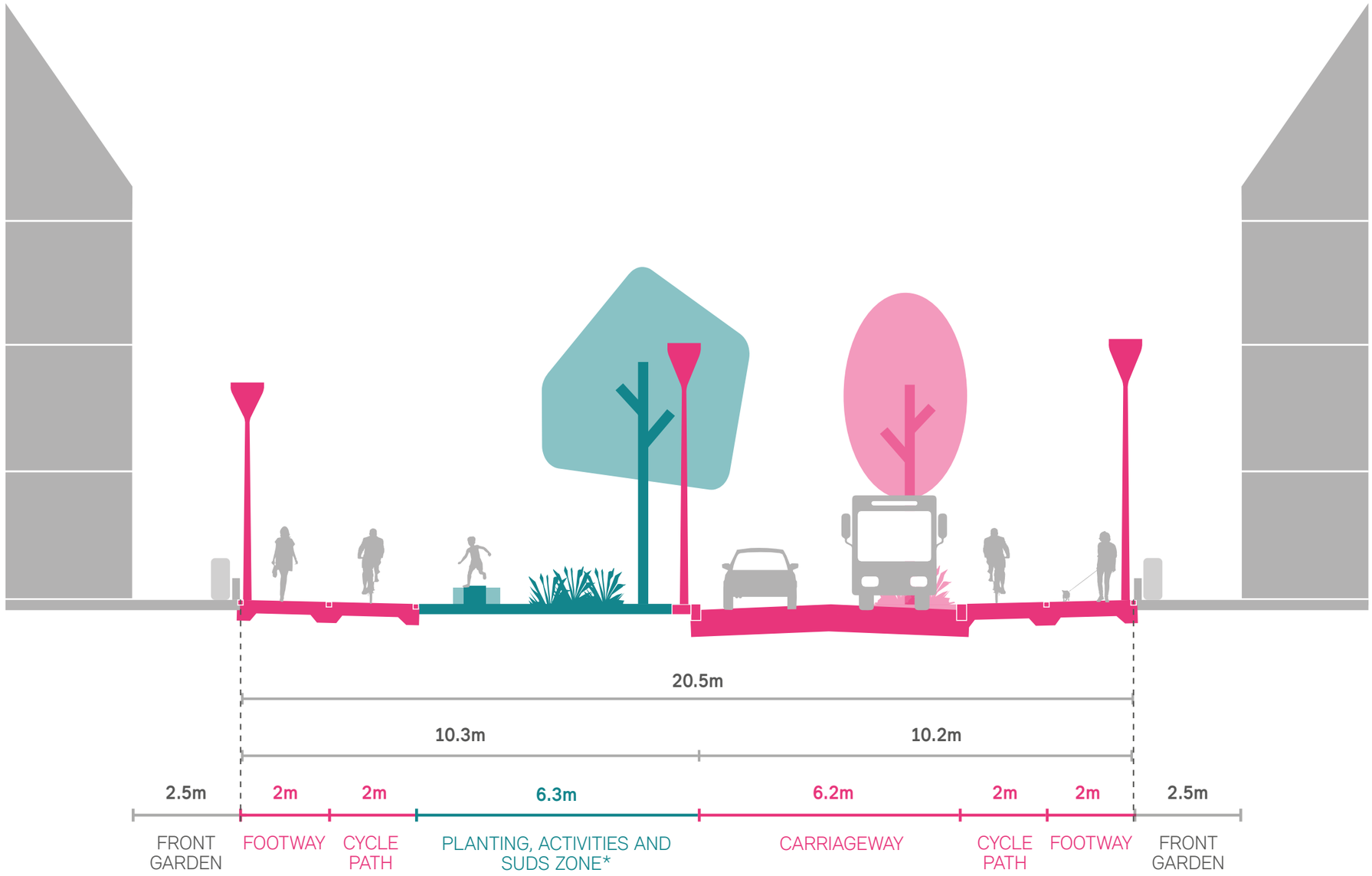
- Primary street – deep verge greenway landscape with trees and pocket social/play spaces
- The Ridgeway – traffic free "green street" landscaped with planting, trees, and pocket social/play spaces.

A key principle behind council adoption of street landscapes is that they constitute part of a wider and interconnected landscape network of natural systems and social interaction.

If hedges are planted the centre line of the hedge must be set back at least 600mm from the back edge of the proposed or existing adopted public highway to allow the hedge to grow without encroaching onto or over the highway.

Green space

The larger green public spaces should be designed for adoption by the city.



Primary Street - Typical section

*0.5m highway maintenance strip required where soft landscape areas abut carriageway.

KEY

- **Highway Authority** - Carriageway, footway, cycle lanes and strategic street trees for traffic calming with build outs
- **City Council** - Living landscape verges and public open spaces
- **Management company** - All other streets and trees

Land and facilities management

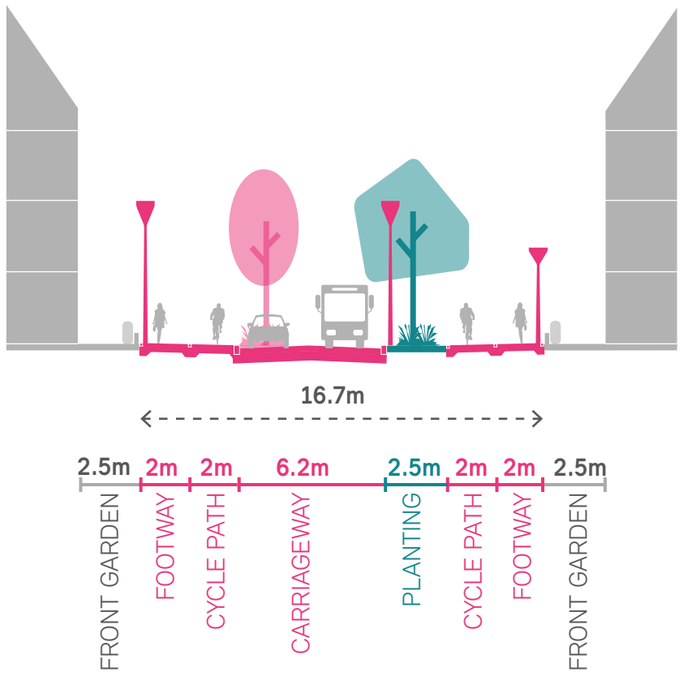
While the aim is to secure city and county adoption of the majority of the streets and green spaces, other areas will still require long-term landowner or other management.

- Minor streets and lanes off the tertiary network, together with associated planting and parking.
- Apartment buildings, their common parts and private shared amenity
- Community, retail buildings and market square
- Public fast charging EV hubs.

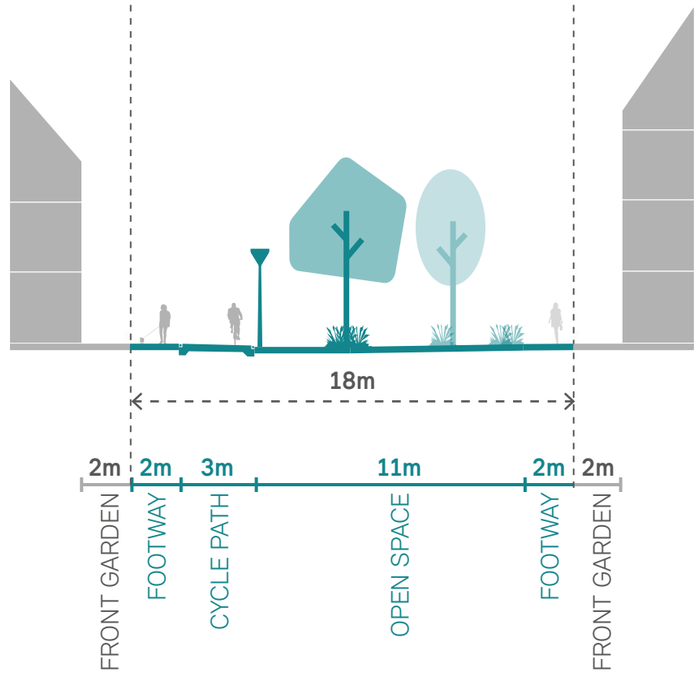
The design and care of external spaces must follow the principles of the design.

The adjacent Sections assume 0.5m maintenance strip where soft landscape areas abut carriageway in accordance with Highway Authority requirements.

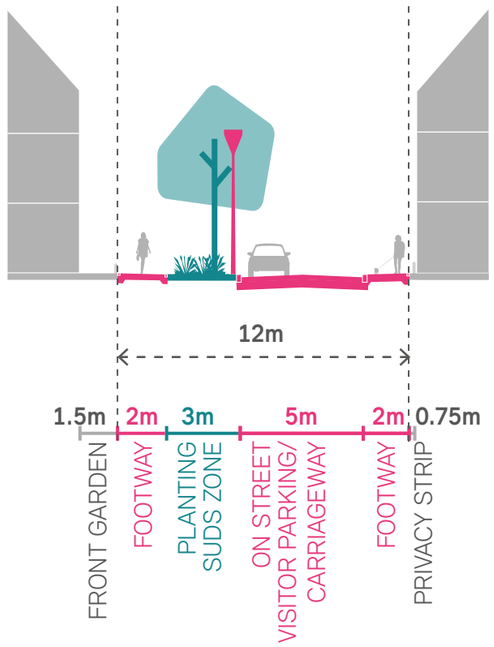
Secondary Street - Typical section



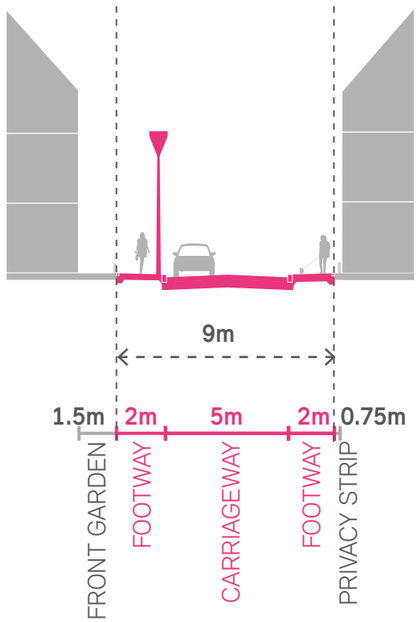
Ridgeway - Typical section



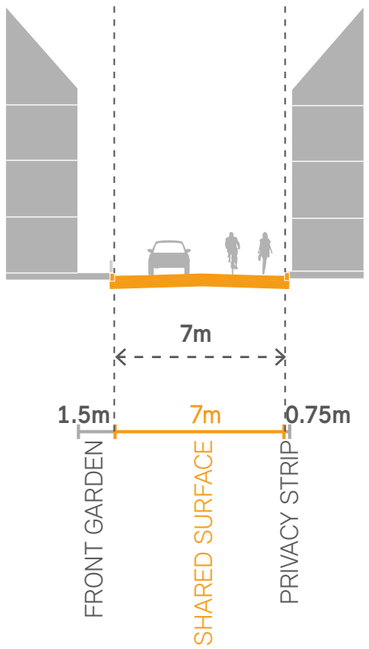
Tertiary Street 1 - Typical section through SuDS Zone



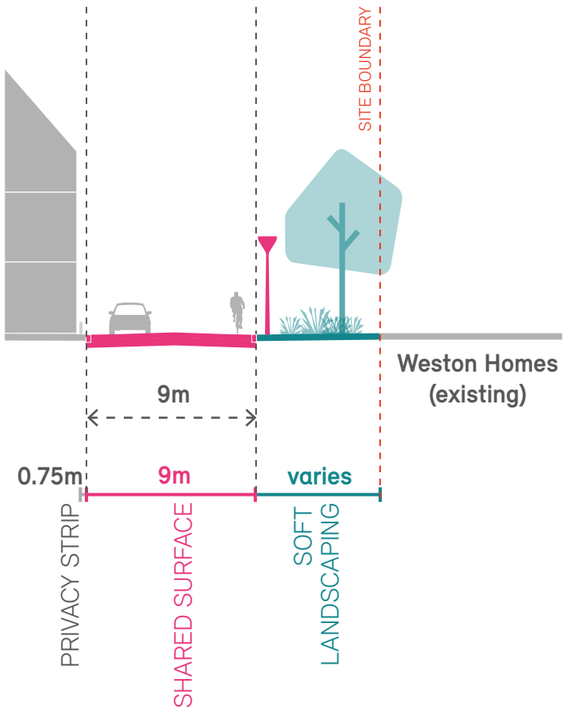
Tertiary Street 2 - Typical section



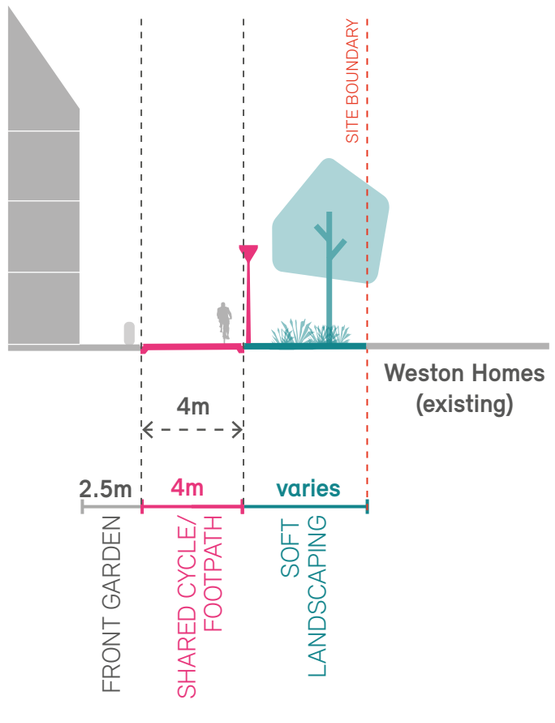
Tertiary Street 3 - Typical section



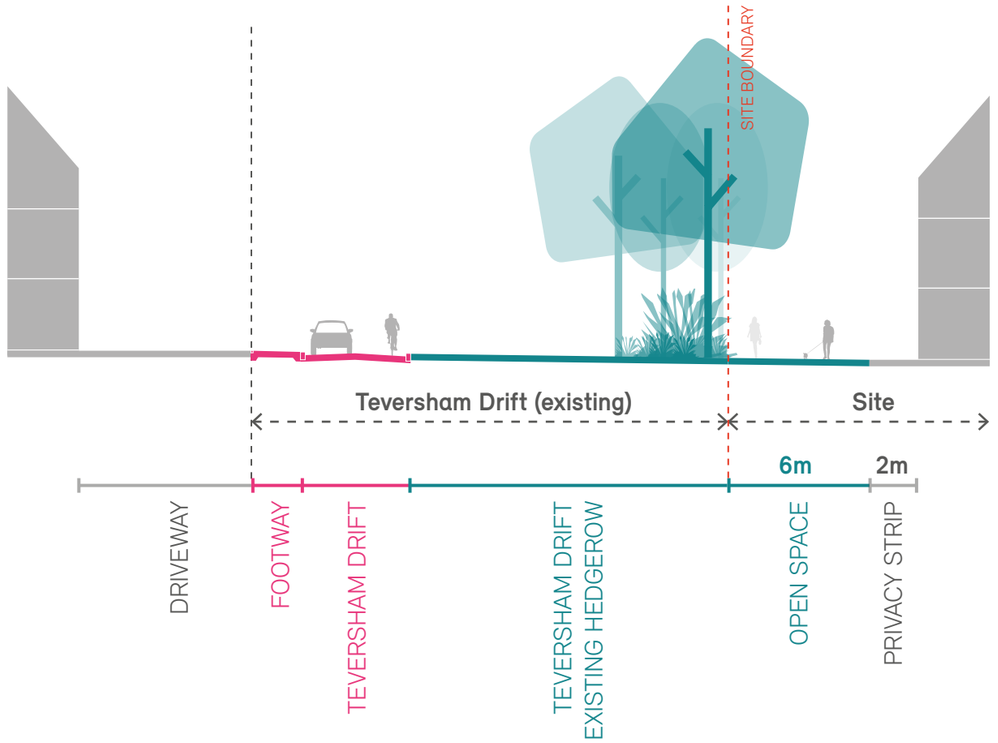
Lane 1a along Weston Homes - Typical section



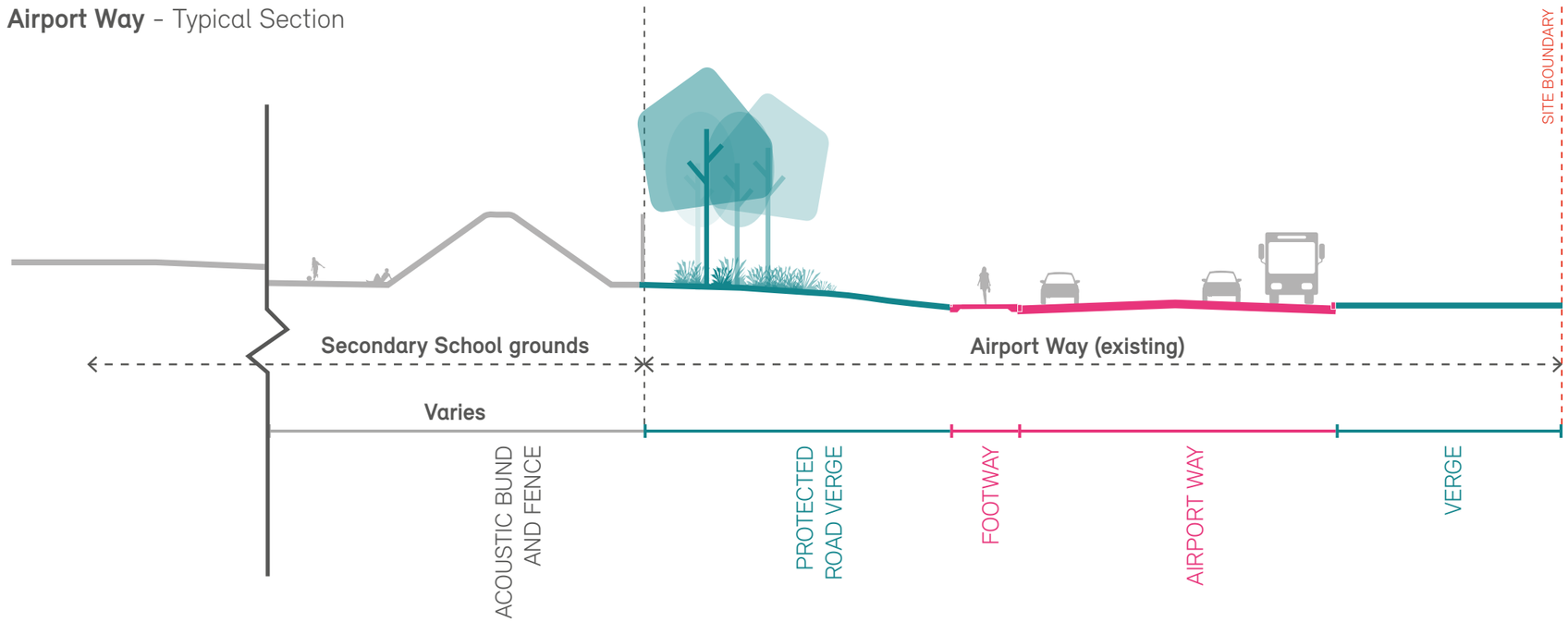
Lane 1b along Weston Homes - Typical section



Teversham Drift - Typical section



Airport Way - Typical Section



KEY

- **Highway Authority** - Carriageway, footway, cycle lanes and strategic street trees for traffic calming with build outs
- **City Council** - Living landscape verges and public open spaces
- **Management company** - All other streets and trees

Airport safeguarding

Public realm, SuDS and planting must be designed to be managed to maintain airport safeguarding while the airport continues in use. This will need to include:

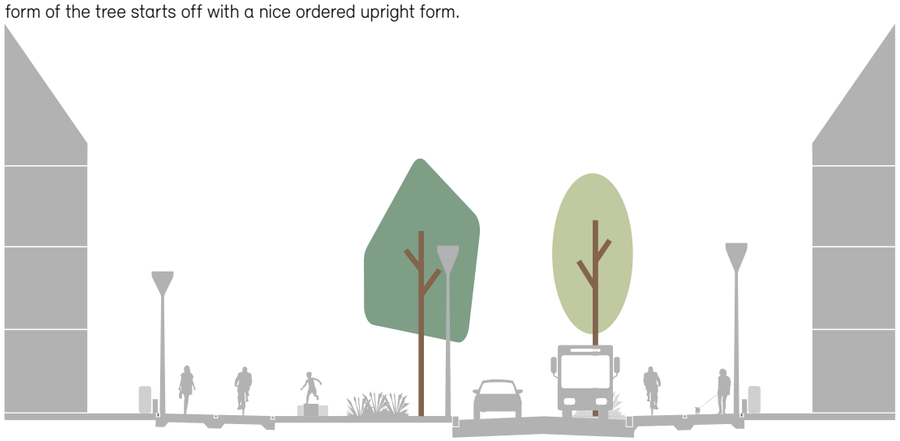
- No new trees over 10m tall
- Minimise areas of standing water to avoid attracting large bird populations
- Avoiding fruit tree planting
- Future provision of PV panels once the airport is decommissioned.

The airport is anticipated to be moving by 2030. Planting and SuDS should be able to transition to encourage more birds and wildlife through changing land management practices, rather than by significant disruption or alteration.

The development layout must anticipate and allow space for connections identified in the parameter plans for future development on the airfield site.

Further guidance on tree planting for streets and other public spaces can be found within the Nature section.

Primary Street - Approximate tree growth in 2023
16-18cm girth (approx. 5.5m high) size at planting would be 5.5m high and approx. 2m dia. canopy spread. This form of the tree starts off with a nice ordered upright form.



Primary Street - Approximate tree growth in 2030
Approximate 9m height and 3.5m dia. canopy spread.

Primary Street - Approximate tree growth in 50 years
15m high and approx. 7.0m dia. canopy spread. One big advantage for this particular situation apart from it being a beautiful tree, is that if the airport doesn't move it will respond well to pollarding.

Consultation, Engagement and Participatory Design

Consultation process

Consultation must be undertaken at every phase of the development and cover all aspects of the design.

Engagement priorities

The development will take many years to complete and must avoid exhausting community interest or causing frustration with repeated "over-consulting" – particularly regarding principles that may be already, for practical purposes, fixed through earlier planning decisions.

To make best use of energy and resources, deeper engagement should be targeted for places where it can make the greatest difference – and may otherwise be missed with regular statutory planning consultation. A good example is the detailed design of the community and social infrastructure e.g. the mixed use of public space, the layout, function and management of non-residential buildings, and ensuring facilities respond to diverse local needs.

Local Centre - Participatory Design

The Local Centre must be developed through facilitated in-depth community participation, in a process bringing together local people and stakeholders, developers, designers, and anticipated facilities managers (if known).

To ensure a meaningful process, engagement must begin prior to detail design work commencing. This will help define the detail design brief for the local centre, the activities it will provide for now, how it is managed, and its adaptability for the future.

Community Reach

The engagement strategy must aim to draw from local people and stakeholders of all ages, backgrounds, and social groups.

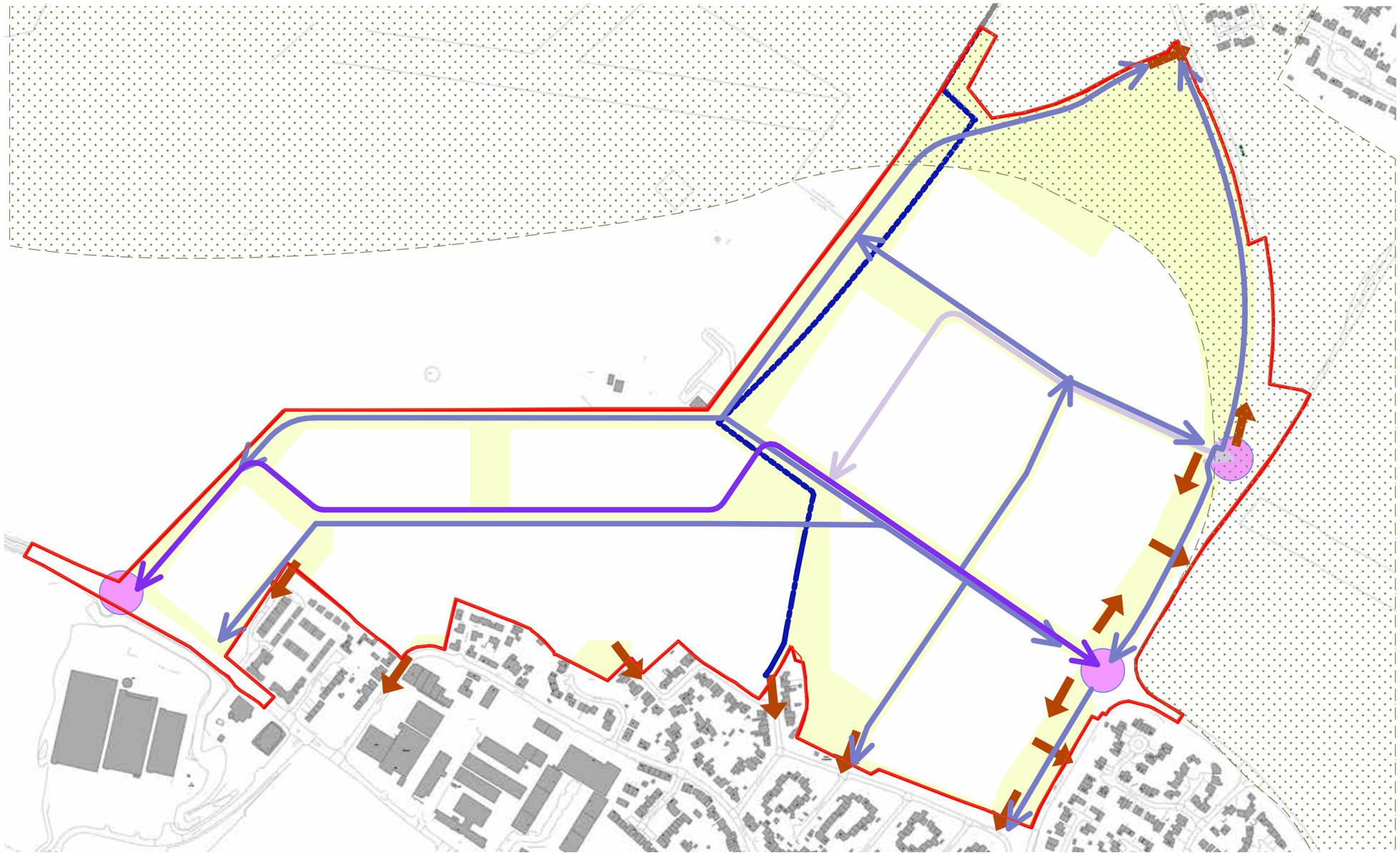
Engagement should include voices that are less frequently heard in consultation, such as teenagers and working people.

Section C: Appendices

Walls and hedges on exposed plot boundaries help maintain street enclosure
Local Cambridge precedent

Parameter plans - Land use

Parameter plans - Movement and access



KEY

- Application boundary
- Indicative alignment of primary street* (Flexibility of ±10m either side of alignment to be determined at Reserved Matters stage)
- Indicative alignment of secondary street* (Flexibility of ±10m either side of alignment to be determined at Reserved Matters stage)
- Desired alignment / zone of proposed cycle pedestrian network (Flexibility of ±10m either side of alignment, exact location to be agreed at Reserved Matters stage)
- Vehicular access points
- Retained Public Rights of Way (footpath 109)
- Existing Public Rights of Way (footpath 109)
- Cycle/pedestrian linkages to Cherry Hinton and Teversham
- Strategic green infrastructure, public open space and playing fields

N

0m 200m

Parameter plans - Building heights

KEY

Application boundary

Residential

Up to 4 storey (up to 15m)

Up to 3 storey (up to 12m)

Up to 2.5 storey (up to 10m)

Assumed residential storey height of 3m floor to floor

Non residential

Mixed use / local centre with potential residential use above (up to 4 storey / 16.5m)

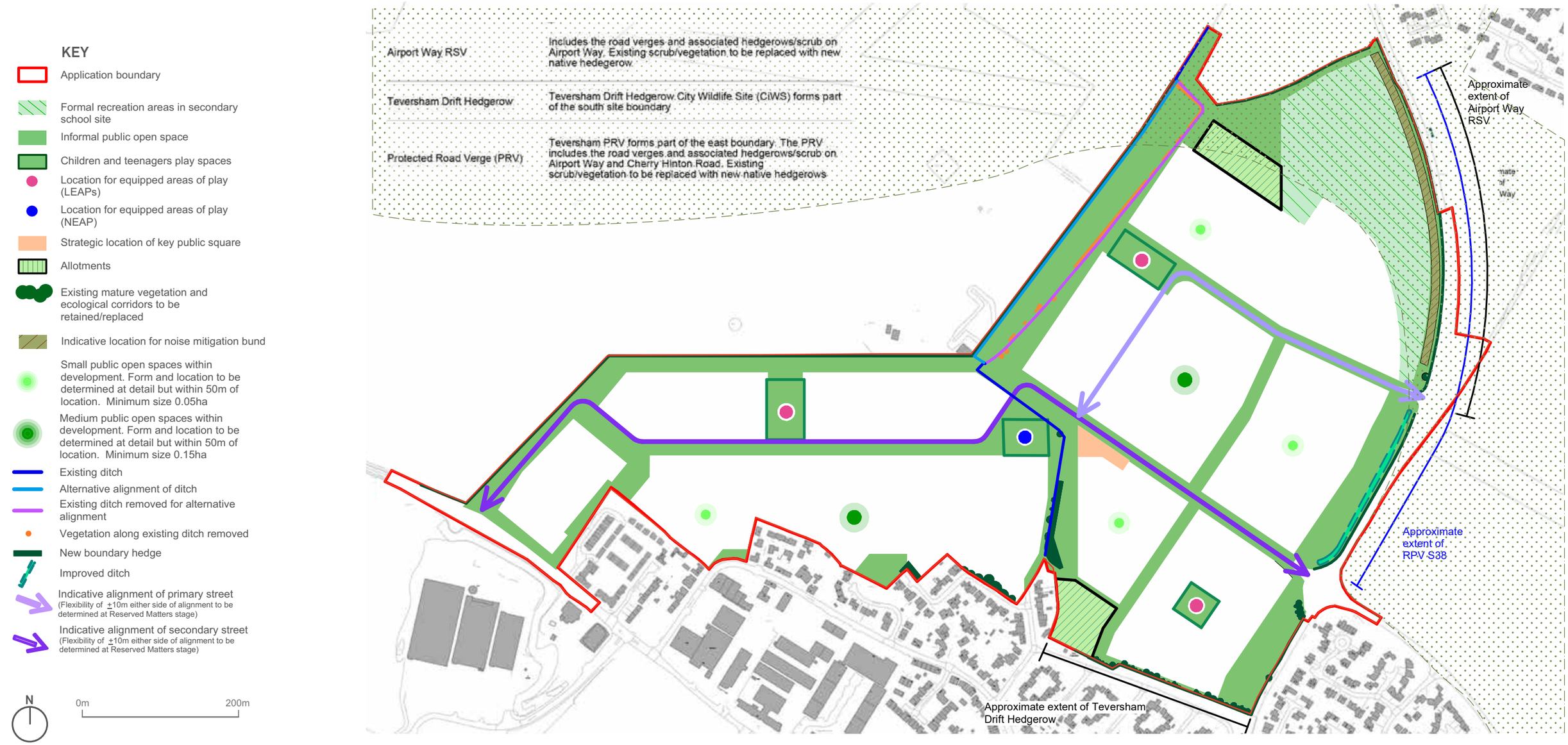
Education up to 3 storey (up to 15m)

Assumed commercial storey height of 4m floor to floor. Residential storeys will be 3m floor to floor

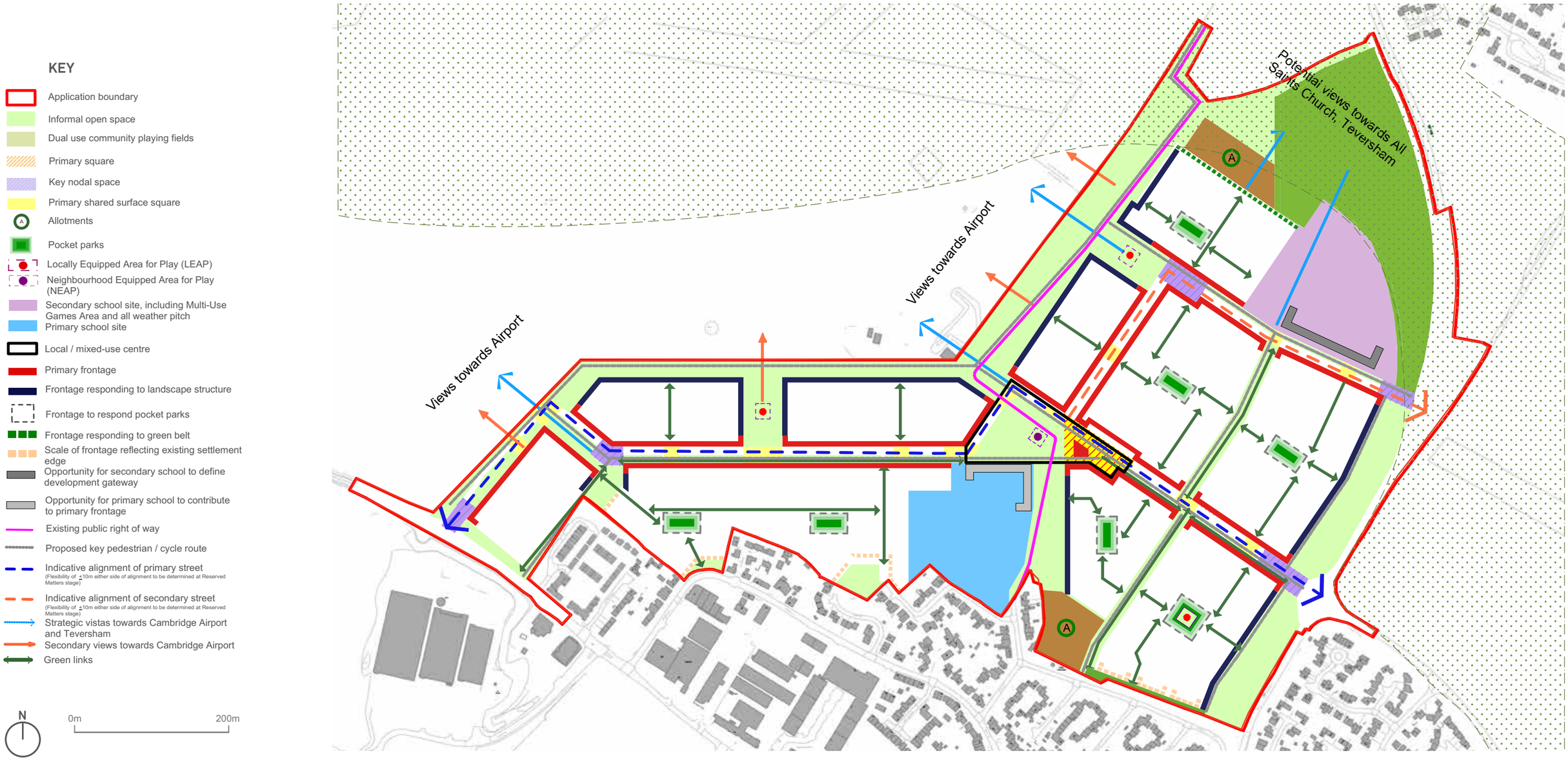
N

0m 200m

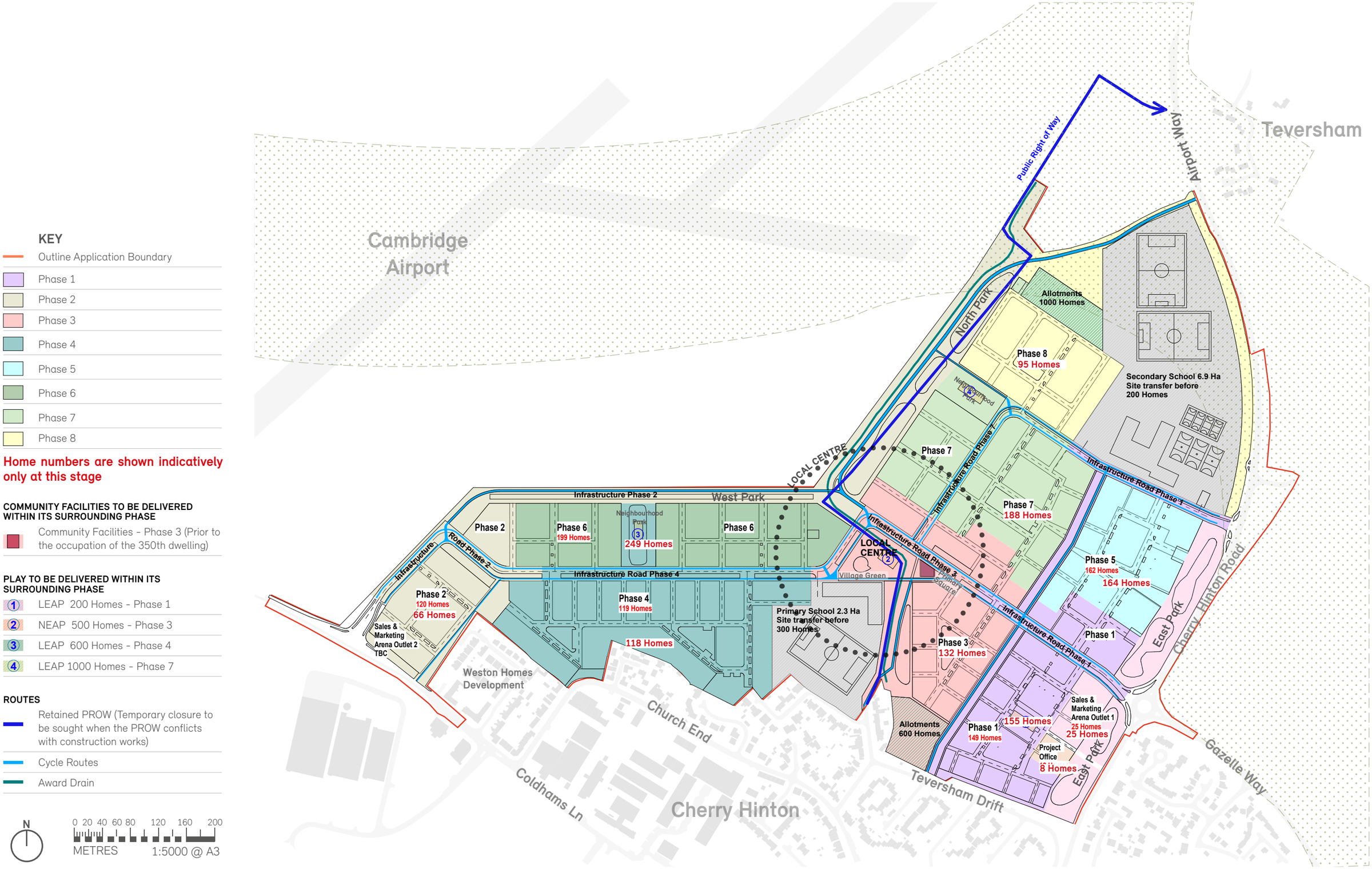
Parameter plans - Landscape and green infrastructure



Parameter plans - Urban form



Construction Phasing: Indicative framework diagram



Noise Modelling based on indicative masterplan diagram

Extensive noise modelling carried out for the outline planning application. Modelling included existing roads and airport operations. No consideration of noise form traffic using primary development roads.

The noise modelling, upon which the assessments to accompany the reserved matters applications will be based, is being updated to include:

- Updated traffic flows for assessment year (2043) with development completed.
- Noise from traffic using primary development roads.
- Consideration of reduced traffic speed along Airport Way / Cherry Hinton Road (reduced from 60mpg to 40 mph.
- Development properties, with the modelling refined as the design for each phase evolves.

The updated daytime noise levels considering the overall site based upon the emerging masterplan are presented on this page.

Noise Constraints:

1. Road traffic travelling along Airport Way / Cherry Hinton Road
2. Road traffic travelling along Coldhams Lane
3. Future road traffic noise on primary development roads
4. Airport operations (principally aircraft movements and Ground Run-up Operations)
5. Industrial / commercial noise Coldhams Business Park, Norman Way
6. Sports pitches / MUGA
7. Operation of local centre
8. External plant

Noise Level LAeq,T
in dB(A)

<	45
45 -	50
50 -	55
55 -	60
60 -	65
65 -	70
>=	70

Note:
Contours Calculated at Second Floor Level

N

Calculated Daytime Noise Levels (dB LAeq, 16 Hour)

Further reading and useful links

2018 Cambridge Local Plan www.cambridge.gov.uk/media/6890/local-plan-2018.pdf
C1 Sustainable Design & Construction SPD Draft for consultation
C4 Cambridge Walking and Cycling Strategy
C15 Sustainable Design & Construction SPD
C17 Car Park & Cycle Standards (2004)

BSRIA Soft Landings Framework
www.bsria.com/uk/consultancy/project-improvement/soft-landings/

Cambridgeshire County Council Development Management live documents:
https://www.cambridgeshire.gov.uk/asset-library/Highway-development-management-Generalprinciples-for-development-May-2021.pdf

https://www.cambridgeshire.gov.uk/asset-library/HERCS-August-2020-complete.pdf

Draft Biodiversity Supplementary Planning Document, Greater Cambridge Shared Planning, 2021
https://www.greatercambridgeplanning.org/media/2316/gcsp-biodiversity-planning-doc.pdf

Four Steps to Zero Carbon, Buro Happold, 2021

HAPPI Principles, Housing Learning and Improvement Network
www.housinglin.org.uk/Topics/browse/ Design-building/HAPPI

Manual for Streets Department for Transport and Department for Communities and Local Government, 2007
www.gov.uk/government/publications/manual-for-streets

Manual for Streets 2 Department of Transport, 2010
www.gov.uk/government/publications/manualforstreets-2

MHCLG, Nationally Described Space Standard
www.gov.uk/government/publications/technical-housing-standards-nationally-described-space-standard

National Design Guide Ministry of Housing, Communities and Local Government, 2021
www.gov.uk/government/publications/national-design-guide

RIBA Sustainable Outcomes Guide RIBA, 2019
www.architecture.com/-/media/GatherContent/Test-resources-page/Additional-Documents/RIBASustainableOutcomesGuide2019pdf.pdf

The Greater Cambridge Sustainable Design and Construction Supplementary Planning Document Greater Cambridge Shared Planning, 2020
https://www.cambridge.gov.uk/media/8157/greater-cambridge-sustainable-design-and-construction-spd.pdf

Including Disabled Children in Play Provision Joint Children's Play Policy Forum and UK Play Safety Forum Position Statement, 2022 https://playsafetyforum.files.wordpress.com/2022/03/including-disabled-children-in-play-provision.pdf

Inclusive Play Sensory Trust, 2020 https://www.sensorytrust.org.uk/uploads/documents/SensoryTrust-Inclusiveplay-2020.pdf

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Diespeker Wharf
38 Graham Street
London N1 8JX
T 020 7336 7777
mail@ptea.co.uk
@ptearchitects
www.pollardthomasedwards.co.uk

Pollard
Thomas
Edwards