

CLAY FARM DESIGN CODE

2011





Preface

This document has been prepared by Countryside Properties Plc.

The Design Code has been prepared further to condition 6 of the outline planning permission for Clay Farm which was granted on 6th August 2010. Condition 7 stipulates that all Reserved Matters planning applications must accord with the Design Code and include a statement demonstrating compliance with it.

Clay Farm, which is part of the Great Kneighton development will include up to 2250 dwellings, new schools, a mixed-use neighbourhood centre, a transport interchange and a major new public open space for the City, covering 49 hectares.

Once developed Clay Farm will form part of a distinctive new urban extension to the south of Cambridge. This will provide housing, employment, additional clinical facilities and biomedical activities, related higher education and research institutes.

The extension will also create improved access to the countryside, enhanced amenities and enriched biodiversity.

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Introduction and Vision

Design Code

This Design Code has been prepared by Countryside Properties through extensive consultation with Cambridge City Council and a number of other stakeholders.

The purpose of this Design Code is to set out clear guidance to designers and developers and to provide a framework, within which the City Council will assess Reserved Matters Applications. The intention is to ensure that design quality is maintained throughout the entire development and that the vision for Clay Farm is delivered.

This Design Code will be a material consideration when determining Reserved Matters applications for Clay Farm. Any variation to this Design Code will only be possible with the agreement of Countryside Properties and Cambridge City Council.

Supporting Information

In addition to the Design Code, a number of other documents have been submitted to Cambridge City Council. It is important for developers and designers to read these documents in order to understand fully the many complex principles upon which the masterplan has been prepared.

These are listed in full on "Design Guidance" on page 155 of this document and include:

- Design Statement
- Design and Access Statement
- Planning Statement
- Environmental Statement
- Parameter Plans and Parameter Plan text (see "Parameter Plan 1 - Land Use" on page 7)
- Cambridge Quality Charter for Growth
- City Council Public Art SPD
- Affordable Housing SPD

Vision

The vision for Clay Farm is to form an attractive part of the Cambridge Southern Fringe urban extension that will integrate existing and new residential areas with the countryside and form strong connective links with the city. It will have its own distinct qualities whilst responding to the surrounding local character features and landscape. The aspiration is to provide place making infrastructure which will facilitate the emergence of a sustainable modern architecture and a new community focused development.

The proposal has been developed for contemporary lifestyles and sustainable living, although references have been taken from the character of local materials, architecture and townscape as well as species, wildlife habitats and landscape. The aspiration of the stakeholders is to deliver a physical structure that facilitates and encourages a sustainable, modern, garden suburb for the 21st century.

When complete, Clay Farm will provide:

- A wide range of up to 2,250 high quality homes of mixed tenure
- A new park, providing a green link between the centre of Cambridge, the Gog Magog Hills and Wandlebury Country Park
- A Primary school and a Secondary school
- Community facilities including sport provision
- Shops
- Provision for local bus services and transport links to the centre of Cambridge and local employment
- Community Sports Facilities

Code Structure

Mandatory Items

M This symbol is used where text, diagrams and tables set out **mandatory** design elements which must be provided by developers, such as street dimensions, building set backs, footpath materials and so forth. If mandatory elements are challenged by designers and developers, it is their responsibility to demonstrate that their proposal does not conflict with the overall aim of this Design Code.

Where no symbol is used then the text or diagrams set out discretionary design proposals which serve to illustrate how mandatory elements could be arranged, such as Key Groupings. It is the responsibility of designers and developers to demonstrate that their proposed alternative does not conflict with the overall aim of this Design Code.

Where photographs are shown, these are illustrative and are for guidance only.

This document is divided into eight sections.

The sections are:

-  Introduction
-  Site Wide Coding
-  Character Areas
-  Long Road Plantation
-  Hobson's Square
-  Royal Showground
-  Delivery and Review
-  Appendices

Introduction

This section introduces the history of the site, its context and the preconceptions for the outline planning application(OPA). It sets the vision for the development and establishes the precedence of the six parameter plans. These plans underlay the key principles and are the basis of the Design Code.

Site Wide Coding

This sets out the coding applicable across the site. It covers matters to do with block structure, access hierarchy, adoptable street materials, car and cycle parking, landscaping, waste and recycling strategies and public art.

Character Areas

It is explained in this section how the site is divided up into the three character areas and then sub-divided into sub character areas. It sets out how parts of the site are differentiated by their individual characteristics and it describes some key frontages and important groups of buildings and adjacent areas. It explains the elements that are different from those in the Site Wide Coding section.

Delivery and Review

This outlines the proposed phasing of the development. The review process is described in order to maintain flexibility within the Code to deal with lessons learned and market led criteria.

Appendices

This contains backup documentation and further reading of relevant information that has influenced and guided the design process of this document.

Site and Context

The Clay Farm site is located approximately 3.7km south of Cambridge City Centre between the village of Trumpington and Addenbrooke's Hospital. It lies approximately 2.1km northeast of junction 11 of the M11 motorway. The village of Great Shelford is approximately 3km southeast of the site.

The site is edged by Trumpington to the west, the Long Road Plantation to the north and rail tracks to the east. The southern boundary of the site is formed by the boundary with South Cambridgeshire District and the Green Belt. Running southwest to northeast through the site was the disused railway cutting, which is now used as part of the Cambridgeshire Guided Bus, (CGB) route. Running south to north through the centre of the site is the historical Hobson's Brook completed in 1614 to bring a supply of running water into the town from the springs at Nine Wells Local Nature reserve (LNR) to the south.

The Clay Farm development will form a sustainable extension to the area of Trumpington and to the south of the city of Cambridge. Two new principal vehicular access points are proposed together with several cycle and pedestrian links to integrate the new development with existing infrastructure, services, and social, commercial and recreational facilities within Trumpington and south Cambridge. Trumpington forms the nearest local community and the High Street in Trumpington is approximately 5 minutes walk to the west of the development.

The architecture and urban design of Trumpington has been carefully studied so that the proposed new development will be designed as a 'good neighbour', knitting into the existing urban grain with appropriate architecture, scale, massing and materials. As defined within the Southern Fringe Area Development Framework (ADF), (January 2006) a key characteristic of the area is the Hobson's Brook wildlife corridor.

Hobson's Brook, a City Wildlife Site, is a chalk stream deriving from the springs at Nine Wells as an important wildlife corridor. Opportunities should be taken to enhance the landscape and biodiversity (i.e. habitats and species enrichment). Hobson's Brook also offers a physical connection between the city and the countryside, promoting an integration of natural elements within the built form.

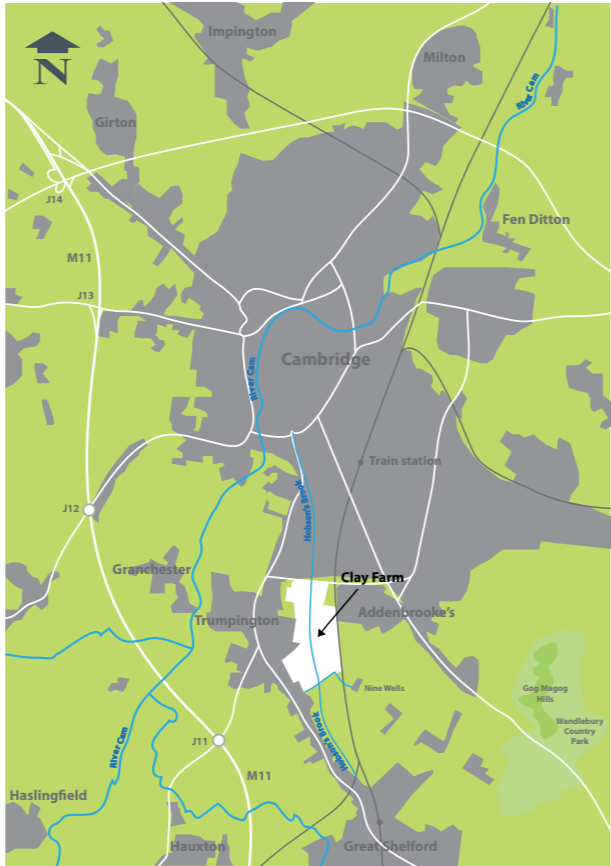


Fig. 1: Location of site within local context

Scheme and Outline Consent

Clay Farm forms part of the Southern Fringe expansion of Cambridge which is allocated for residential and mixed uses in the Cambridge Local Plan and for which the ADF provides further policy guidance.

Outline planning permission (ref. 07/620/OUT - 6th August 2010) has been granted for:

- Up to 2250 mixed-tenure dwellings
- 40% of all dwellings across the site will be affordable and must be incorporated as required in the S106 and designed in an equitable manner and tenure neutral in respect of the market housing.
- 49 hectares of public open space in the Green Corridor to the east of the development area, to which access will be provided by new and existing bridges over Hobson's Brook.
- Attenuation ponds which will provide habitats for a variety of species, as well as recreational opportunities, the largest of these being a new wetland in the southern part of the Green Corridor which will provide habitat for wading birds.
- Up to 3,050sqm (gross) of retail/commercial uses within the local centre.
- Community centre including multi-use hall, meeting rooms, Police and Social Services Offices and youth facility.
- Health centre
- A new primary school on 2.3 hectares in the southern part of the site.
- A new secondary school on 3.45 hectares in the northern part of the site, with playing pitches in the northern part of the Green Corridor.
- Formal and informal open space and children's play space, including full sized, floodlit, artificial grass pitch (AGP) and grass pitches, as part of dual-use, community/school sports provision on the secondary school site, two Super Local Equipped Areas of Play (SLEAPS) located within large open spaces within the northern and southern parts of the residential area (for children between the ages of 4-10 years of age), two LEAPS near to the primary and secondary schools (for children between 4 and 8), a number of Local Areas of Play (LAPs) which are for children up to six years of age, and a Neighbourhood Equipped Area of Play (NEAP) for older children within the Green Corridor.
- 1.5 hectares of allotments in the Green Corridor and 0.5 hectares of community gardens within the residential area.
- A new access onto Long Road providing access into the northern part of the site. Access from the south is to be via Addenbrooke's Road which is in place.

The following plans, together with accompanying text, have been approved as part of the planning permission, see appendix "A" on page 126 :

- Site boundary
- Location Plan
- Parameter Plan 1 - Land Use
- Parameter Plan 2 - Access
- Parameter Plan 3 - Landscape
- Parameter Plan 4 - Density
- Plan 5 - Maximum Building Heights
- Parameter Plan 6 - Urban Design Framework
- Drawing 1818_005A LEM P Relocation Jul. 2009

Key Elements

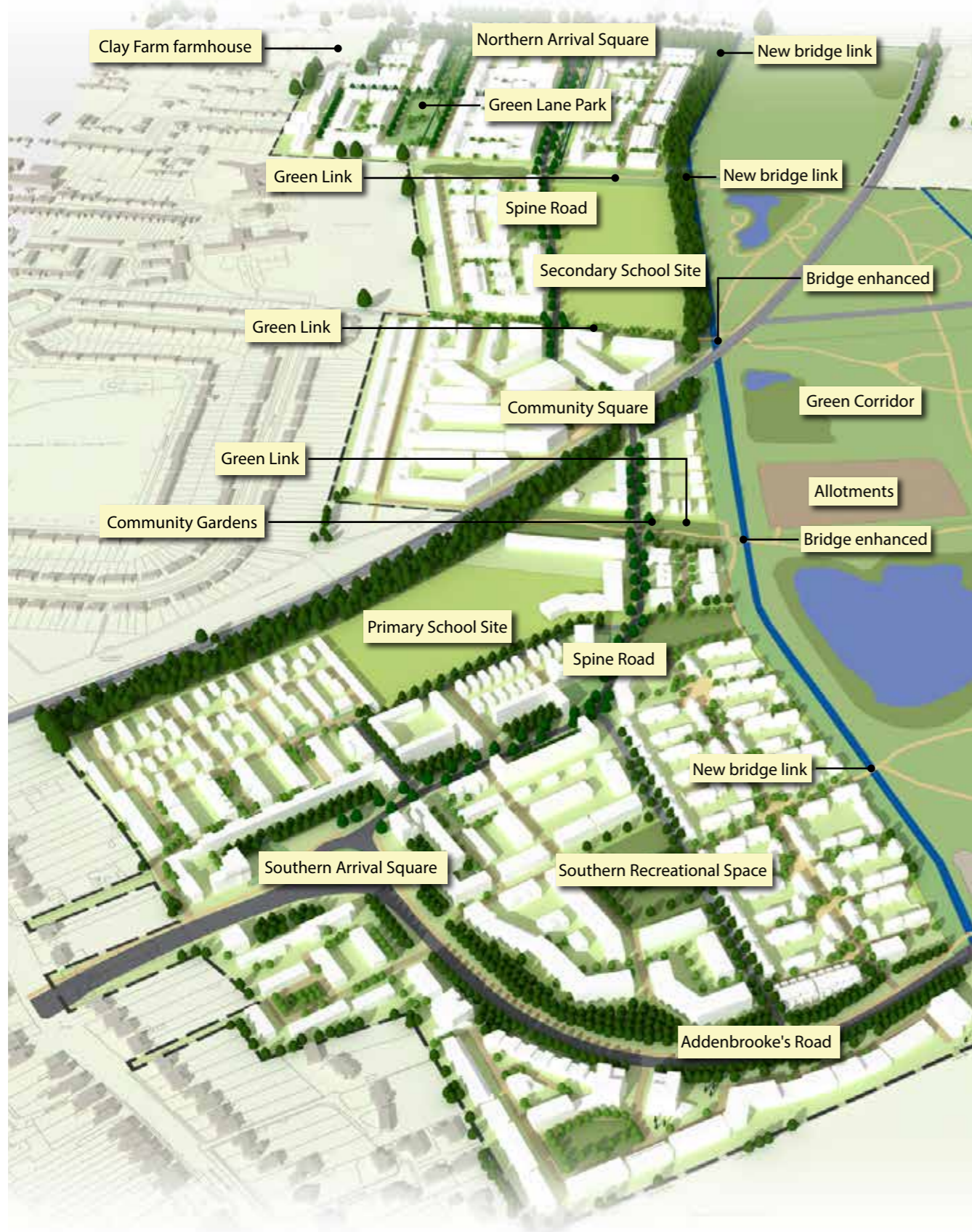


Fig. 2: Masterplan vision

Character Areas and Sub Character Areas

The overall site is divided into three main character areas which are further divided into sub character areas. These are as follows:

Long Road Plantation

- Long Road Gate
- Hobson's Edge
- School Square

Hobson's Square

- Mid Brook
- Trumpington Edge

Royal Showground

- Grand Court
- Addenbrooke's Avenue
- Woodlands
- Brookside
- Park Side

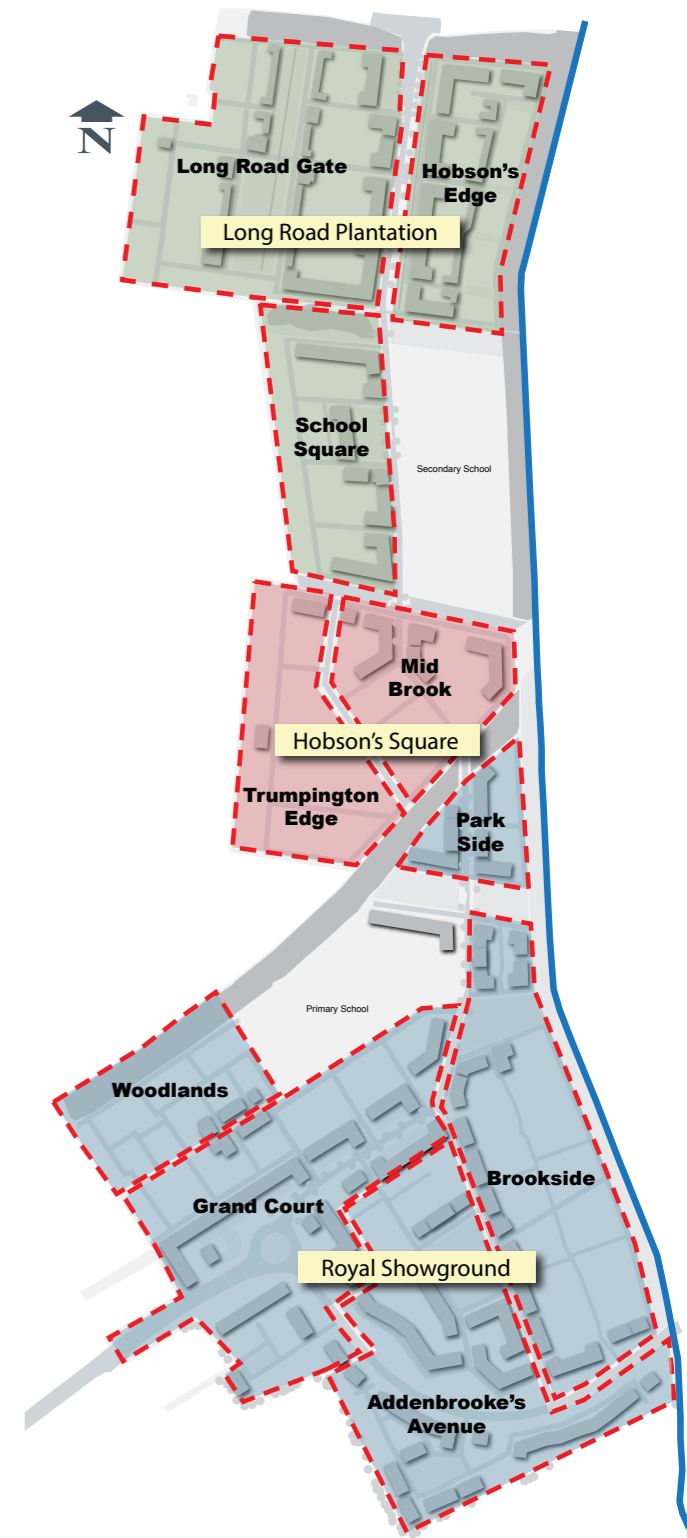


Fig. 3: Character Areas and Sub Character Areas location plan

The background is a solid dark purple color. In the top-left corner, there are seven horizontal white lines of varying lengths, stacked vertically. In the bottom-right corner, there is a faint, dark silhouette of a plant with thin stems, leaves, and small flowers. The text 'site wide coding' is centered in the middle of the page in a white, lowercase, sans-serif font.

site wide coding

The site wide coding section provides conceptual design guidance for elements across the whole site.

Introduction

Individual character areas will have further requirements and these are described and illustrated in Section 2. In addition to the measures outlined within this document, any developer should also refer to the other conditions relating to the outline planning permission, as set out on the planning permission decision notice.

Land Uses

The land at the Clay Farm site has been divided into the following uses:

M	Land Use	Area	Description
	Residential	39.60 ha	Area shall have a capped limit of 2250 units overall, of which 40% will be affordable housing.
	Local centre	1.86 ha	A mixed use local centre comprising a new community centre, shops with local facilities and residential units. This focal area will also have bus stops and it is proposed to provide stops for the Cambridgeshire Guided Bus (CGB) route.
	Existing Plantations	4.51 ha	Land consisting of existing trees, established hedgerows and adjacent watercourses.
	Public Open Space	5.75 ha	New play and public amenity areas located strategically throughout the site.
	Primary School	2.3 ha	Located close to the local centre, the land is bounded by residential units, community gardens and public open space.
	Secondary School	3.45 ha	Secondary school and Artificial Grass Pitch (AGP) will be located on a site adjacent to the Green Corridor. School playing fields will be located in the Green Corridor.
	Green Corridor	49.27 ha	Land allocated for public open space, infrastructure and balancing ponds for surface water collection from the residential area.

Table 1: Land uses











-  Hobson's Brook
-  Mixed-use Local Centre, including Residential
-  Public Open Space within the Local Centre
-  Existing Plantations
-  Public Open Space (Main areas only shown on this plan)
-  City Council Sustainable Housing Scheme Site
-  Secondary School Site
-  Primary School Site
-  Residential Area
-  Green Corridor



Fig. 4: Land use plan

Block Structure

The block structure is shown in "Fig. 5: Block structure diagram" on page 13. The precise alignment, shape and size of blocks may be subject to change due to both commercial and site constraints.

Generally the block dimensions are between 45m to 90m to enable the most flexibility and enable a range of building types.

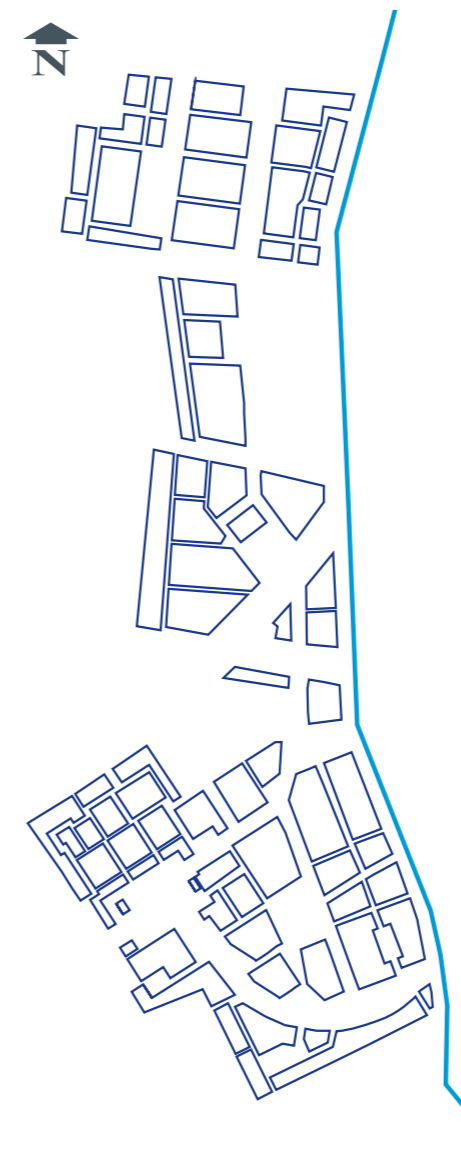


Fig. 5: Block structure diagram

The block structure has been determined by a number of key elements through the site:

- Spine Road running north to south through the site
- The public open spaces and cross-site green links
- The Addenbrooke's Road route
- The community square
- Existing established features e.g. watercourses, hedgerows and plantations

These will be explained in more detail in later sections of this Design Code.

These block structures may have a finer grain than shown, but must respect the local character area and neighbourhood identity.

These would be subject to further consultation at the Reserved Matters stage.

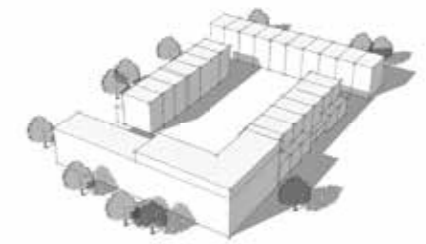


Fig. 6: Example of an urban block at Long Road Plantation

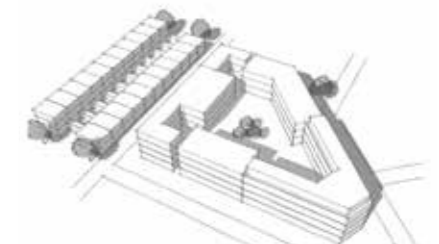


Fig. 7: Example of an urban block at Hobson's Square



Fig. 8: Example of an urban block at Royal Showground

1.2 Movement and Streets

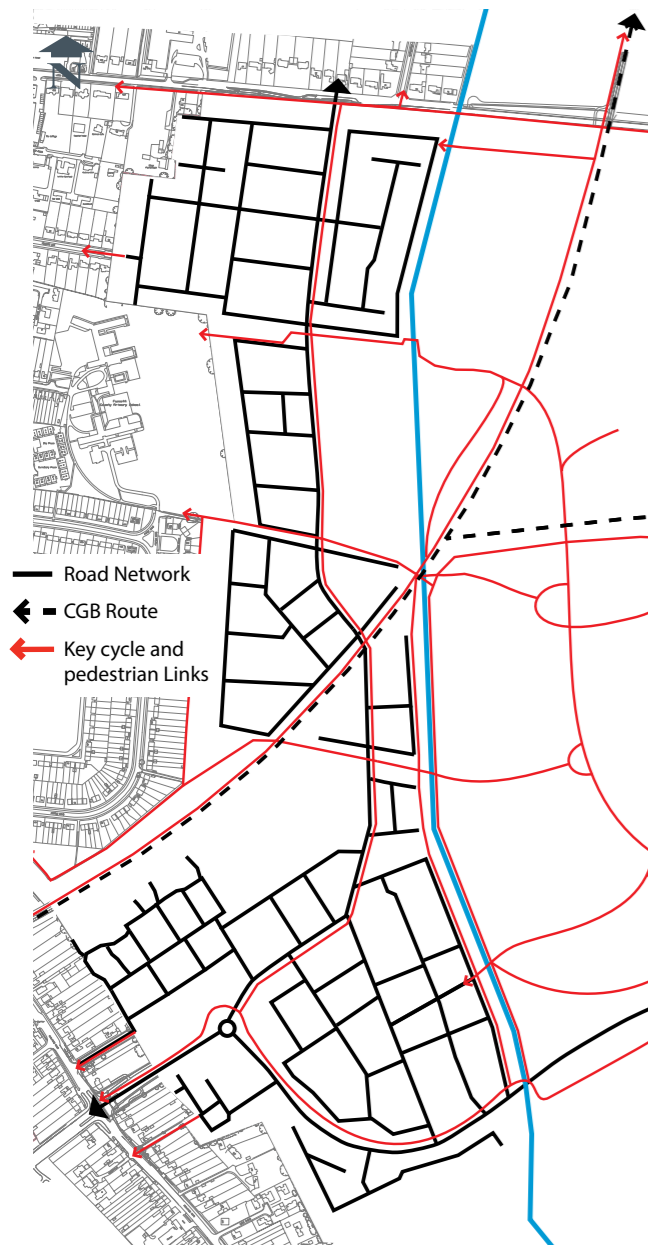
Pedestrians and Cyclists

The intention is to encourage sustainable modes of transport and minimise the use of motorised private transport. "Fig. 9: Cycle and pedestrian routes plan" on page 14 shows the key cycle and pedestrian routes.

Routes and Connections

The spine road provides direct access through the site, with a maximum speed of 20 mph. Existing links provide access into the Green Corridor with dedicated paths and cycleways connecting the primary and secondary schools to Hobson's Square.

The principle of the routes are mandatory however the exact alignment of the routes will be determined through Reserved Matters applications.

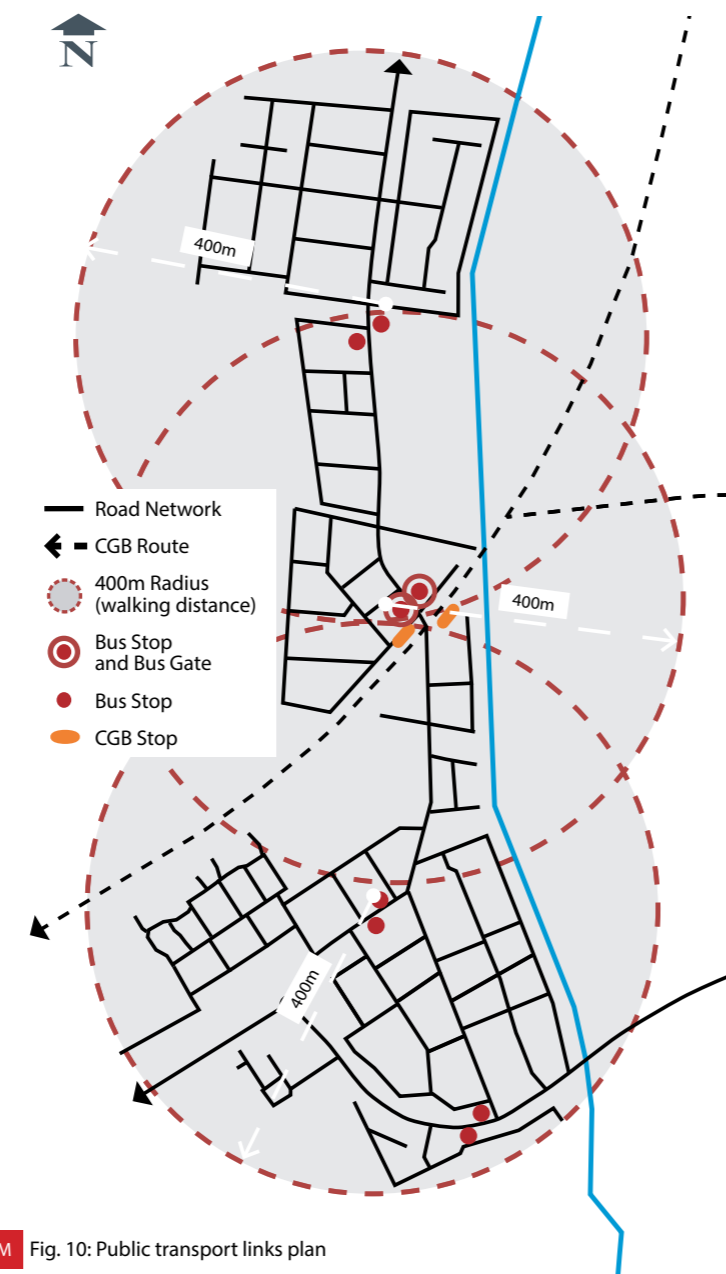


M Fig. 9: Cycle and pedestrian routes plan

Public Transport Links

The proposed development has been designed to enable an efficient bus route through the site connecting Long Road to Shelford Road. There will be four bus stops located along the Spine Road and a bus gate in the central area will allow the free flow of buses through the development, but prevent cars from using the site as a short cut.

The CGB route will connect Trumpington to Addenbrooke's and the City. There will be a CGB stop in the centre of the proposed development at Hobson's Square.



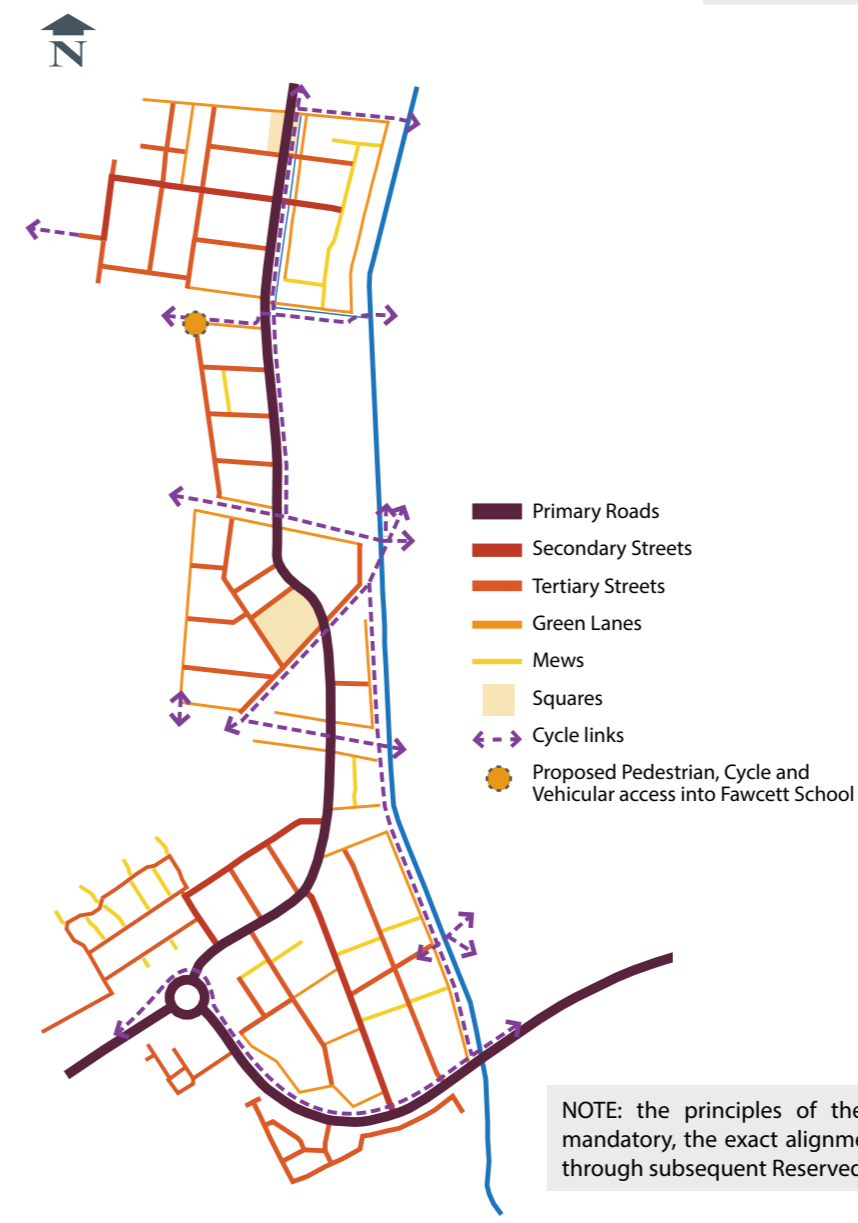
M Fig. 10: Public transport links plan

Street Network

All streets must be designed to meet the requirements set out in the [Cambridgeshire Design Guide for Streets and Public Realm](#) and must be in accordance with [The Manual for Streets 1 & 2](#), (Department of Transport).

All streets should be designed to a high quality, to reduce clutter and minimise signage.

"Fig. 11: Street hierarchy plan" on page 15 below sets out the street hierarchy.



M Fig. 11: Street hierarchy plan

The designer should make reference to the following key guides:

- [Cycle Infrastructure Design, Oct. 2008 \(Department for Transport\)](#)
- [Cycling in New Developments, Apr. 2008 \(Cambridge Cycling Campaign\)](#)
- [Cambridgeshire Design Guide for Streets and Public Realm \(Cambridgeshire Horizons and Cambridge City Council\)](#)
- [Manual for Streets 1 & 2, \(Department of Transport\)](#)
- [Housing Estate Road Construction Specification, Jan 2011 \(Cambridgeshire County Council\) or any document that supersedes this.](#)

NOTE: the principles of the street hierarchy are mandatory, the exact alignment will be determined through subsequent Reserved Matters applications.

1.2 Movement and Streets

Street hierarchy

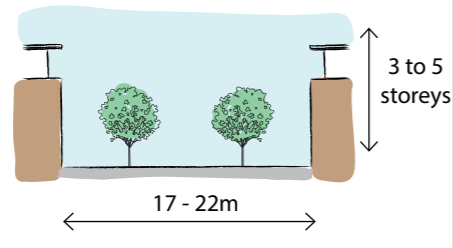

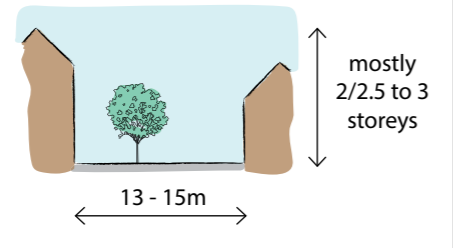

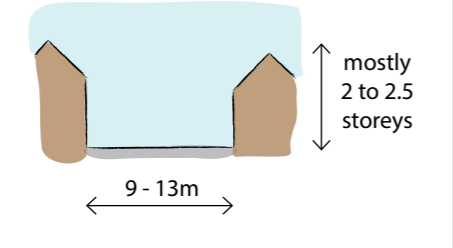

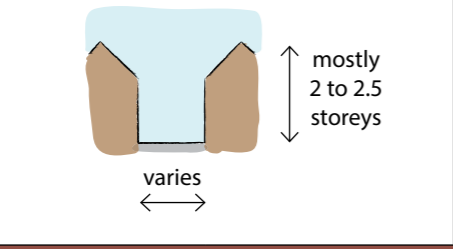

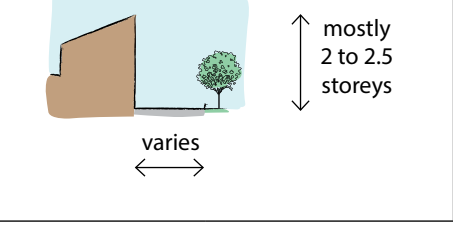






Primary Road	Section / Photo	
The spine road is the Primary road in the street hierarchy. The built form along the spine road shall be between 3 and 5 storeys high. The road has been designed to accommodate an avenue of large Lime trees requiring a minimum set back from tree to building of 8m.		
Secondary Street	Section / Photo	
The secondary streets branch off the Spine Road and have a strong, formal character. They are tree lined with a minimum set back from the tree to the building of 5m. Their character varies between character areas.		
Tertiary Street	Section / Photo	
The tertiary streets mainly branch off the secondary streets. These streets must be designed to be clearly read as of a lower level in the street hierarchy. The traffic speeds are lower and they have a more intimate, pedestrian friendly character. Space will be created within the tertiary streets for occasional highway tree planting. These could be at junctions, between parking, or buildings could be set back (from the tree to the building of 5m), to accommodate planting.		
Mews	Section / Photo	
Mews are short streets where buildings sit on the back edge of the footpath or at the edge of the shared surface. Building facades are closer together in mews and should be carefully designed to ensure overlooking is minimised.		
Green Lane	Section / Photo	
Green Lanes are found at the edges of green spaces where the intention is to minimise vehicular intrusion. Green Lanes will include native tree and shrub planting, (with a minimum set back from the tree to the building of 5m), to create a rural appearance and will give priority to pedestrians and cyclists and reduce permeability for motor vehicles.		

Table 2: Street hierarchy matrix

	Primary Road	Secondary Street	Tertiary Street	Mews	Green Lanes
M Design speeds					
Target Speed**					
Street dimensions and character					
Minimum carriageway / shared surface width	6.1m	5m	5m	5m	5m
Adoptable highway width	14.9m	11.2 and 13.8m*	8.6m	7.5 to 12m	6m min
Footway	1.8m each side	1.8m each side	1.8m each side	None	None
Verge	2.6m each side	2.6m each side or single side*	None	None	None
Direct plot access	No	Limited	Yes	Yes	Yes
Public Transport					
Bus access	Yes	No	No	No	No
Street Design Details					
Design intent	Straight sections of road. Grass verges on each side.	Straight sections of road. Grass verge on one side only.	Generally straight informal alignment	Generally straight informal alignment	Generally straight informal alignment
Back edge of footway to building	2m to 5m max.	2m to 6m max.	2m to 4m max.	n/a	2m to 4m max.
Trees	Formal layout single species. Large woodland type.	Generally as boulevard in irregular pattern. Mix of species.	Informal with specific mix.	Informal opportunity for larger species.	Occasional with a variety of mix.
Direct vehicular access to properties	No	Yes	Yes	Yes	Yes
Vehicular access to parking courts	No	No	Yes	Yes	Yes
Horizontal traffic calming using alignment and texture	Maximum 60m intervals.	Regularly spaced squares	Through alignment	No	Through alignment and parking bays within road width
Pedestrian crossing points	Yes	Yes	Yes	Yes	Yes
Vehicle swept paths	All vehicles	Refuse and removals	Refuse and removals	Refuse and removals (subject to length of road)	Refuse and removals (subject to length of road)
On street parking	Yes, both sides, 2.6m wide within line of verge	Yes either or both sides, 2.6m within line of verge	Road widens to accommodate occasional parking space	Yes, within carriageway width	Yes, within carriageway width
Junction sightlines (x/y)	2.4m / 33m	2.4m / 33m	2.4m / 33m	2.4m / 33m	2.4m / 33m
Junction spacing – same side/other side	60m/30m	60m/30m	60m/30m	60m/30m	60m/30m
Junction radii	4m	2.5m	2.5m	Subject to tracking requirements	Subject to tracking requirements
Statutory services	In footway each side. Drainage below carriageway	Footways where necessary	Footways where necessary	Within service strip	Within service strip
Maintenance strip	No	No	No	0.5m*** each side	0.5m*** each side

* see local character area details

** signs to be at entrance to speed zones only

*** see "Fig. 21: Service strip details" on page 23 for details

Signage to be kept to a minimum throughout site to avoid visual street clutter.

Table 3: Street coding matrix

1.2 Movement and Streets

Roads and Streets

Primary Road

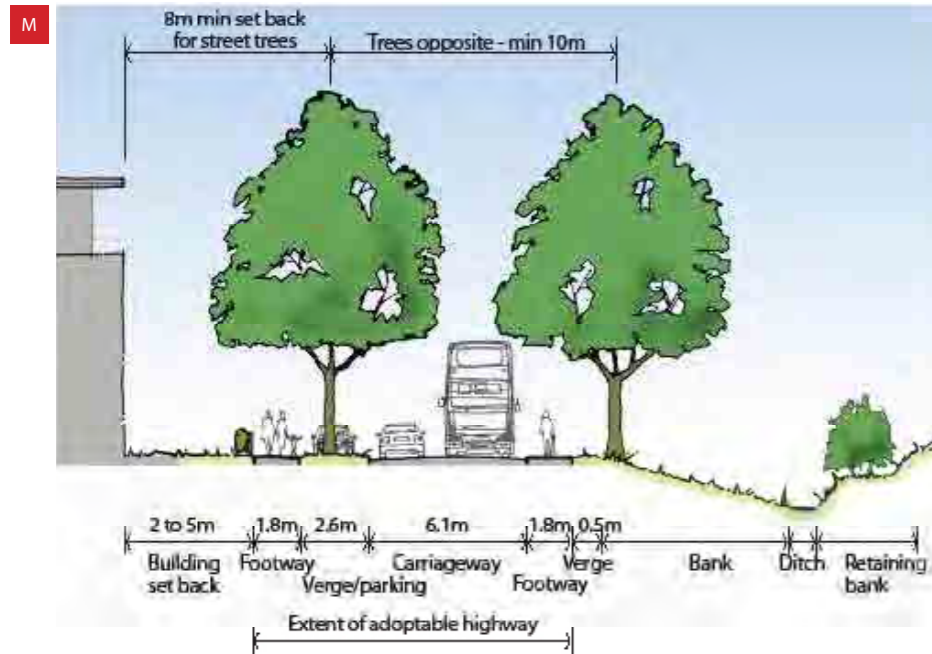


Fig. 12: Section through Primary Road - Spine Road Northern Long Road

The primary road provides the main access through the site. Except for buses and cycles, motorised vehicular access is terminated halfway along its length from either direction within the central area of Hobson's Square.

Visitor parking will be available as parallel parking bays between the Lime trees.

Buildings will generally be close to back of pavement to establish prime frontages rich in architectural detail. Green links that cross the road along its route have visual and access priority over the primary road.

These will act as traffic calming measures with distinct changes in surface material.

Primary Road

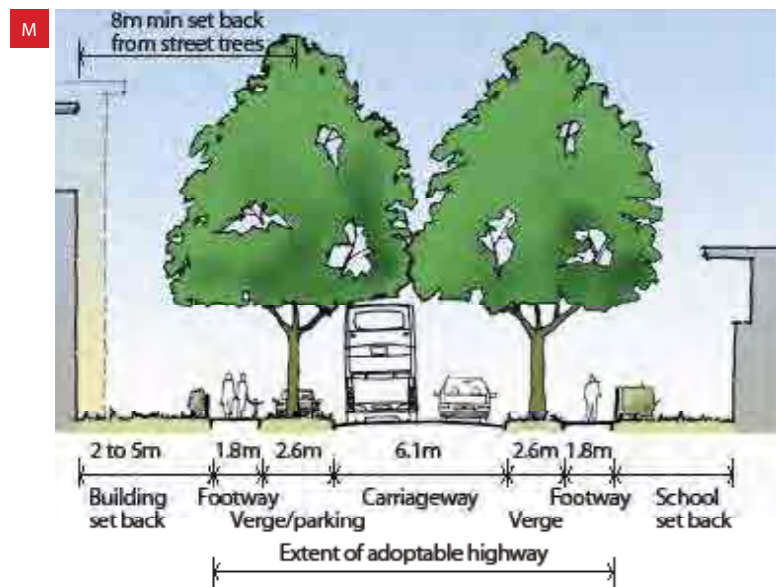


Fig. 13: Section through Primary Road - Spine Road Northern School Avenue

Key characteristics of Primary Roads:

- 20 mph maximum speed
- 6.1m carriageway width
- Varying 2 – 5 storey development fronting onto route
- Tree lined street with Silver Limes
- Consistent grassed verge with parallel visitor parking bays
- Carriageway material to be hot rolled asphalt with dense bitumen macadam footways.
- No direct vehicular access to properties from this road.
- Primary frontages alongside the road with taller and more dense properties.
- Street furniture to be consistent along its entirety.

Primary Road

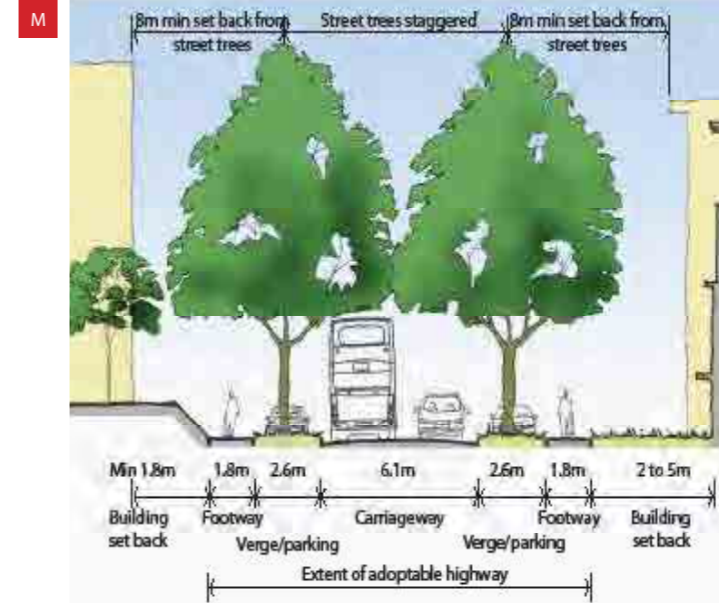


Fig. 14: Section through Primary Road - Spine Road Southern Boulevard

Primary Road

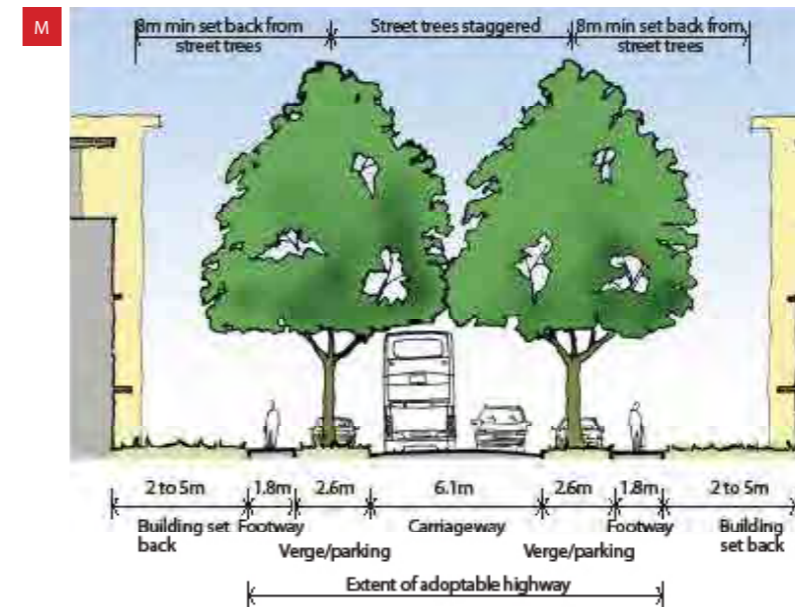


Fig. 15: Section through Primary Road - Spine Road Southern Park Road

1.2 Movement and Streets

Roads and Streets

Secondary Streets

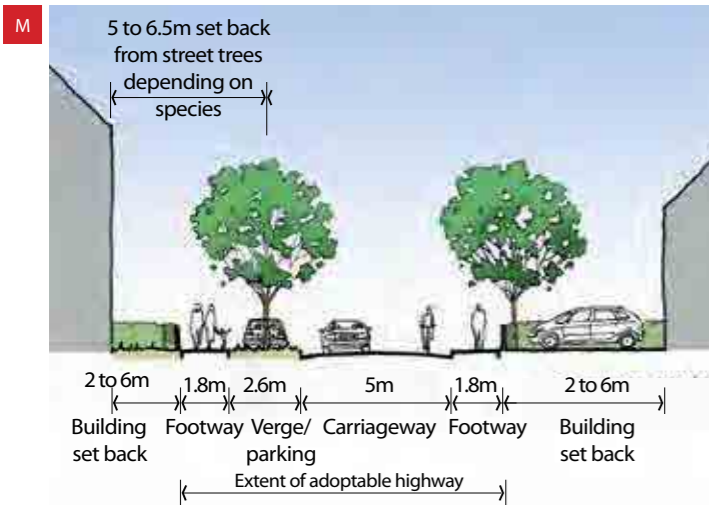


Fig. 16: Secondary street section

Secondary Streets provide connectivity within the site to the Spine Road (primary road) and Addenbrooke's Road. Secondary Streets in this character area will have a width of 5m, with one side of the street incorporating on street visitor parking. Buildings will be set back to provide the opportunity for generous front gardens and on plot private parking.

Key characteristics of Secondary Streets:

- 20 mph maximum speed
- 5m carriageway width with on-road cycling
- Varying 2- 5 storey development fronting onto route
- Where possible will be tree lined on both sides
- Consistent grass covered/planted verge
- Double aspect with built form aligned close to back of pavement on one side of the street and behind deep front gardens on the other.
- Built form and private plot boundaries will define the carriageway alignment
- The character of the street scene will be created through the use of surface materials, boundary treatments and tree species.

Tertiary Streets

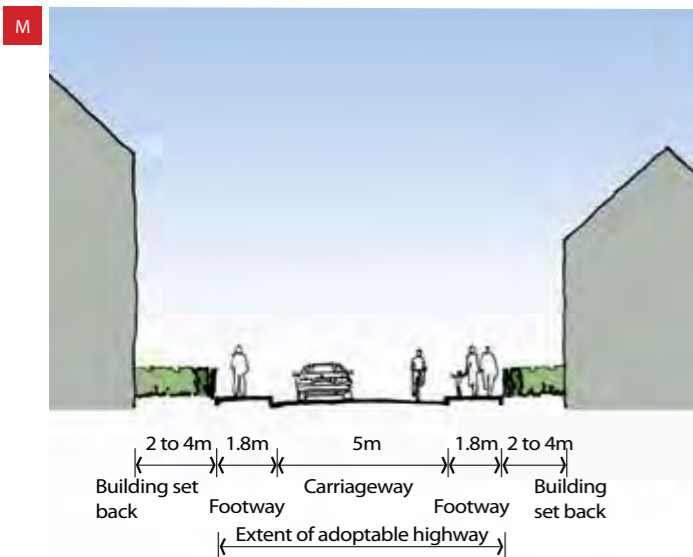


Fig. 17: Tertiary street section

The Tertiary Streets are intimate, usually short, providing access to residential dwelling units and providing a safe, well-lit environment with some on - street parking and green infrastructure off the main routes.

Key characteristics of Tertiary Streets:

- 10 mph maximum speed
- 5m carriageway width with on-road cycling
- Varying 2-4 storey development fronting onto route
- Informally designed parking bays will be accommodated
- Formed with a high degree of built form enclosure, with consistent building lines and setbacks, softened with planting.
- Street lights and signage to be discretely located
- Street trees to be provided with suitable gaps wherever possible, minimum 5m from buildings.

Mews

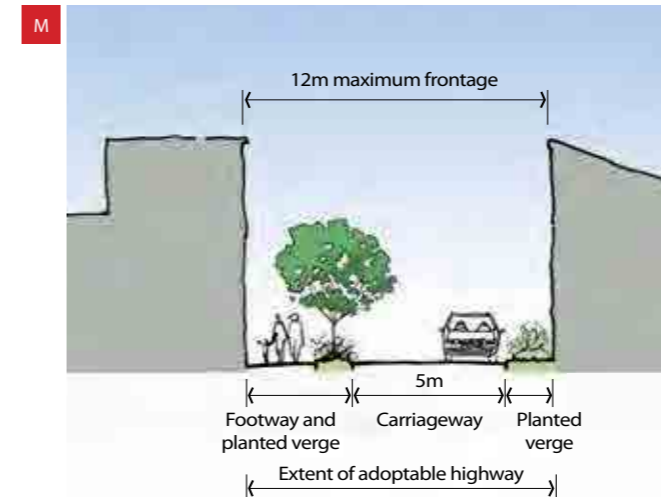


Fig. 18: Mews section

The Mews creates connectivity within the residential dwelling units and provide a safe, well-lit environment that provides access for parking and infrastructure off the main routes. These residential access streets will be more informal, shared surfaces with their width and form being dictated by building alignments.

Key characteristics of the Mews:

- 10 mph maximum speed
- 12m maximum frontage to frontage width
- 5m carriageway width with on-road cycling
- Varying 2-4 storey development fronting onto route
- Informally designed parking bays will be accommodated
- To have a shared surface
- Formed with a high degree of built form enclosure, with consistent building lines and setbacks
- Street lights and signage will be mounted on building facades where possible to minimise clutter. Solar lighting solutions are encouraged.
- Space will be created for small highway tree planting at the termination point of the mews, between parking, or buildings could be set back to accommodate planting

Green Lanes

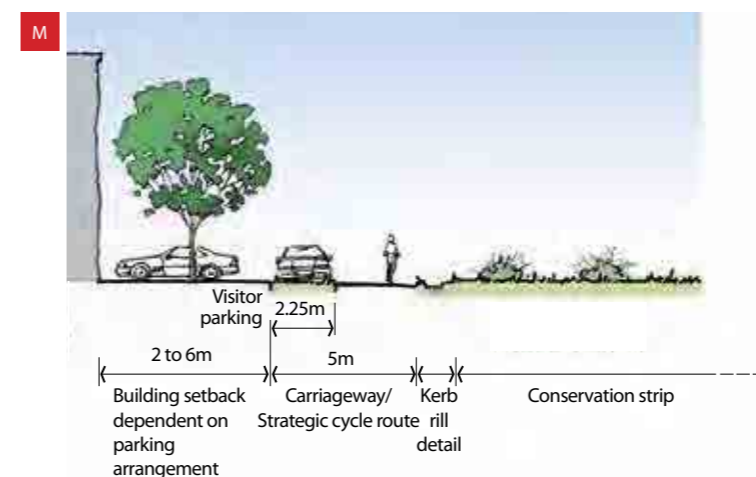


Fig. 19: Green Lane section

The Green Lanes provide restricted no through access to residential areas along ecologically sensitive edges of the development. A rural edge character along the route will be created through planted hedge boundaries and a shared surface material.

Key characteristics of the Green Lanes:

- 10 mph maximum speed
- Varying 1.5-4 storey development fronting onto route
- 5m carriageway width narrowed to 2.75m at on street parking and width restrictions
- Tree planting will be incorporated where possible
- Plot boundary edges will define the carriageway alignment
- Pedestrian routes will be defined by timber bollards to separate from vehicle areas
- The pedestrians and cyclists have priority in the shared surface
- Informally designed parking bays will be accommodated
- Street lights and signage will be mounted on building facades where possible to minimise clutter. Solar lighting solutions are encouraged.
- A rural edge character along the route will be created through native species planting

1.2 Movement and Streets

Roads and streets materials

	Primary Road	Secondary Street	Tertiary Street	Mews	Green Lanes
M Material					
Carriageway	Hot rolled asphalt	Hot rolled asphalt, block or tegula paving	Block paving	Block paving or similar	Block paving or similar
Footway surfacing	Hot rolled asphalt with chippings	Hot rolled asphalt with chippings	Hot rolled asphalt with chippings or paving	n/a	n/a
Parking zone	Hot rolled asphalt	Hot rolled asphalt	n/a	n/a	n/a
Kerbing (between footway and carriageway / parking)	100mm raised kerb	100mm raised kerb	100mm raised kerb	none	none
Channel / demarcation between parking and carriageway	145mm conservation kerb laid flush	n/a	n/a	n/a	n/a
Demarcation within footway at crossings	Pre-cast concrete blister pattern slabs in panel at crossing point. Colour to be natural grey.*	n/a	n/a	n/a	n/a
Pedestrian crossings	Block paving or similar	n/a	n/a	n/a	n/a
Kerb at pedestrian crossing / pavement cross-over	63x150x915mm silver grey conservation kerb	Dropped kerb	Dropped kerb	n/a	n/a
Shared surface circulation	none	none	none	Block paving or similar	Block paving or similar
Shared surface parking	none	none	none	Block paving or similar	Block paving or similar
Privacy margin (within property boundary)	Private garden	Private garden	Private garden	Planted	Block paving or similar
Demarcation extent of adoption	Flush metal studs/ setts or footway edge	Plot boundary setts or footway edge	Plot boundary setts or footway edge	Plot boundary setts/concrete posts	Plot boundary setts/concrete posts

* Only to be provided where this is a specific requirement of the Highway authority to provide legibility to the blind or partially sighted.

Table 4: Street coding matrix

The following types of materials are considered appropriate for use within the site. The choice of materials and palettes used need to meet the requirements for visually impaired users and satisfy guidance within [Manual for Streets](#) and the [Cambridgeshire Design Guide](#) and the [County Council's Housing Estate Road Construction Specification \(HERCS\)](#).



- 1 Tegula Penant grey
- 2 Natural paving slabs
- 3 Granite setts
- 4 Conservation kerbing
- 5 Brick paviours - Natural
- 6 Hot rolled asphalt with chippings
- 7 Resin bonded aggregate
- 8 Tactile paving
- 9 Dense Bitumen Macadam
- 10 Brick paviours - Charcoal
- 11 Mistral Graphite

Fig. 20: Material samples

The options below indicate how a 0.5m wide service strip to Mews and Green Lanes could be delineated.

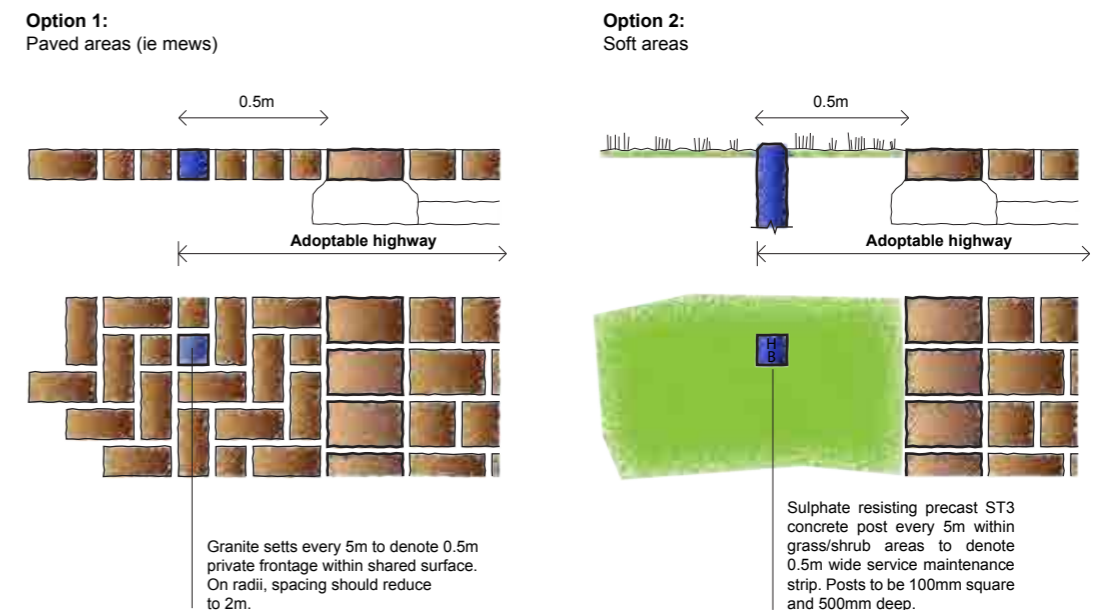


Fig. 21: Service strip details

1.3 Parking


































Dwelling	Parking	Min. Cycle Storage
5 bed	 	   
4 bed	 	  
3 bed	 or ( )	  
2 bed		 
Apartments		
3 bed		  
2 bed		 
1 bed		
Public		
Visitors	 per 4 units	As appropriate
Car Club	 per character area *	-

Table 5: Parking provision matrix

* Extra spaces may be provided in high demand areas

- Garage space included in the above calculations
- Reserved Matters Applications must show how visitor parking requirements are met and attributed to units.
- Location of Car Club spaces to be agreed with local authority, car club provider and the appropriate developer.

To determine the number of car/cycle parking spaces please refer to:

- [Cambridge Parking Requirements, Cambridge Local Plan, Appendix C](#)
- [Cycle Parking Guide for New Residential Developments, \(Transport Initiatives LLP and Cambridge City Council\)](#)

Visitor parking for cars, small vans and motorcycles should generally use shared public on-street parking. On-street parking will be subject to a Traffic Regulation Order. Signage is to be used to enforce this which must be sensitively designed and co-ordinated with other street furniture. Road lining should not be used for traffic regulation parking areas.

It should be noted that outline planning condition 52 restricts the number of residential parking spaces on the overall site to 3,427 off-street spaces plus 575 on-street visitor spaces (one for every four dwellings), excluding any car parking spaces that are designed for the use of a Car Club. In the event that the total number of residential units on the site is below 2,300, a reduced maximum level of car parking provision will be agreed with the Local Planning Authority prior to the construction of the parking spaces associated with those Reserved Matters plots.

Cycle Parking

conveniently sited • accessible and easy to use • safe and secured • covered • fit for purpose • well managed and well maintained • attractive

Residential cycle parking

Cycle parking for residents should be provided in a secure, covered and lockable enclosure, ideally within the footprint of the building.

Houses with garages

Where possible cycle parking should be accessed from the front of the building either in a specially constructed enclosure or easily accessible garage. The design of any enclosure should integrate well with the surroundings. Visitor parking should be as close as possible to the dwellings.

Houses without garages

Cycle parking provided within the footprint of the curtilage of the plot should allow access by means of a doorway min 1000mm wide and the enclosure should be at least 2000mm deep (see "Fig. 22: Cycle storage - houses without garages" on page 25). Parking should be secure, covered and made of the same materials as the main structure. If within a secure area accessed by residents only, then open cycle stands that are covered may be used.

Apartments

Cycle parking should be located within 20m of the entrance of the building and closer than the nearest non-disabled parking space. The space should be well lit in a safe and secure environment. Any external parking enclosures should be overlooked and not hidden by planting.

Generally the parking areas should be at ground floor level and located internally. Visitor parking spaces are to be provided at ground floor adjacent to the main entrance.

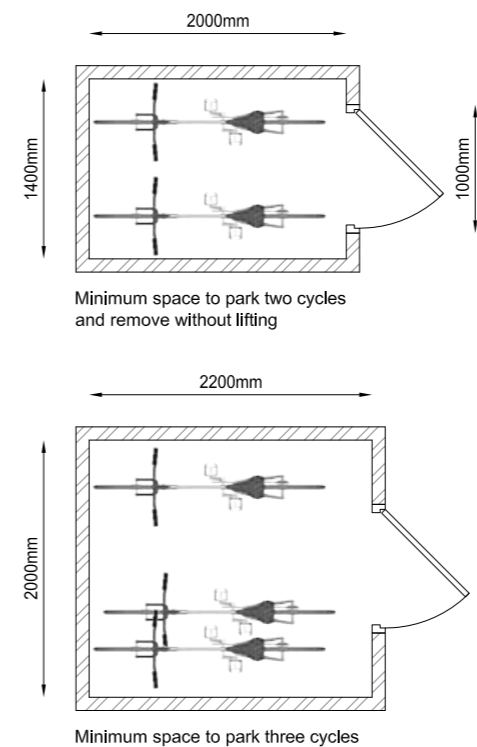


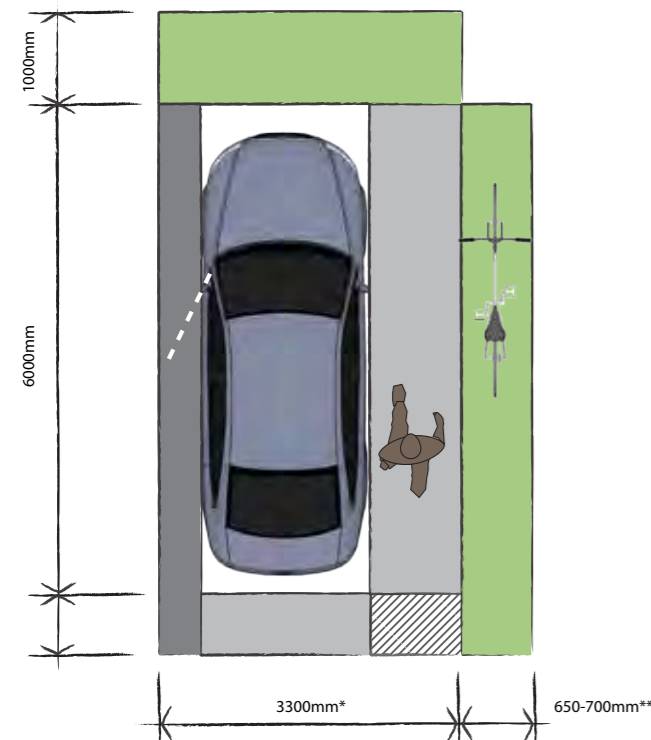
Fig. 22: Cycle storage - houses without garages

1.3 Cycle Parking

Residential cycle parking cont.

Houses with garages

Garages may be used to store cycles. The size and configuration of the storage area must be such that cycles can be removed easily without having to move any cars (see "Fig. 23: Approved garage dimensions" on page 26). For further detail see *Cycle Parking Guide for New Residential Developments*, (Transport Initiatives LLP and Cambridge City Council).



* Width based on the average width of a car, a small gap on the passenger side and an aisle width to access the cycle parking
 **Depth depending upon the arrangement and number of cycles parked, 650mm refers to minimum depth for 1 cycle, 750mm refers to 2 cycles parked adjacent to each other

(showing additional storage required for cycle parking if proposed in garage)

Fig. 23: Approved garage dimensions

Public Realm

Cycle parking should be well integrated, convenient and created with materials appropriate to its surroundings. Typically the Sheffield type stand should be used and laid out in a fashion that meets with the criteria recommended within the *Cycle Parking Guide for New Residential Developments*.



Fig. 24: Example of cycle stands

- Minimum dimensions of garage 3300mm x 6000mm
- Circulation space (minimum width 1000mm) to allow cyclist pushing a bicycle past parked vehicle
- Area allocated to allow vehicle door opening (minimum 450mm)
- Minimum circulation space required to allow access to cycles without the need to remove vehicle
- Area which could be used for the storage of cycles dependent upon the arrangement and number of cycles to be stored

Car Parking

Well designed car parking is crucial to create successful places. Careful consideration needs to be given when designing parking arrangements. The following diagrams and photographs illustrate good practice and establish the key principles across the site. Car parking should be designed so that parked vehicles do not dominate the streetscape.

The site will provide on average 1.5 parking spaces per unit. Parking allocation requirements are shown in "Table 6: Car parking - on plot allocated matrix - all dimensions taken from back edge of footpath" on page 27 and designers are reminded to allow for an appropriate level of visitor parking.

Visitor parking for cars and motorcycles should generally use shared public on-street parking. On street parking will be subject to a traffic regulation order. Signage is to be used to enforce this which must be well designed and coordinated with other street furniture. Road lining should not be used for traffic regulation parking areas.

Designers should make reference to the following documents:

- [Manual for Streets 1 & 2 \(Department of Transport\)](#)
- [Cambridgeshire Design Guide for Streets and Public Realm, \(Cambridgeshire County Council\)](#)
- [Car Parking; What Works Where, \(English Partnerships\)](#)
- [Cambridge Parking Requirements, Cambridge Local Plan, Appendix C](#)
- [Motorcycle parking will be required within key public areas. Designers should refer to Motorcycle Guidelines, \(Institute of Highway Engineers\)](#)

Parking arrangements		Suitable solution		
On plot allocated				
Front access private drive	Parking located within recess of building line or building line set back to allow front parking. The latter is not a preferred layout as vehicles dominate the street view.	* 5m should not include the public adopted highway		
Front access detached garage	Garages to be set back from the building line. Minimum 5m bay required in front of garage to allow additional space or less than 2m to preclude parking.			
Front access attached garage	Garage to be built behind the building line. Driveway to be minimum 5m long or less than 2m to preclude parking.			
Front access drive through	Building line to be set close to the back edge of pavement to deter parking in front of the building line. Additional bay may be located behind drive through. Arrangement must allow for viable tree planting.			
Rear access back garden	This arrangement is to be perceived as part of the rear garden. The overall space should give a strong sense of local enclosure and may be gated. The maximum number of units serviced by this arrangement will be no more than 6. Arrangement must allow for viable tree planting.			

Table 6: Car parking - on plot allocated matrix - all dimensions taken from back edge of footpath

1.3 Car Parking

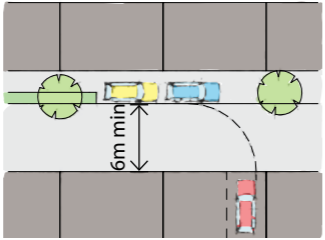

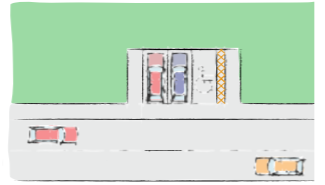
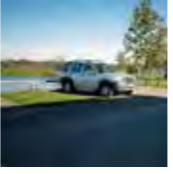
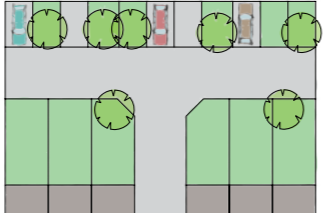

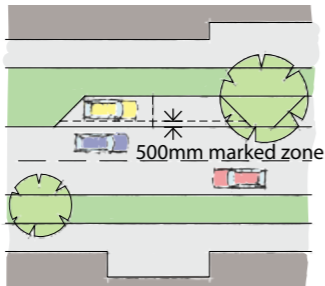

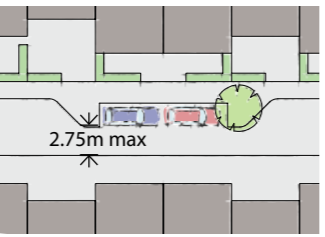

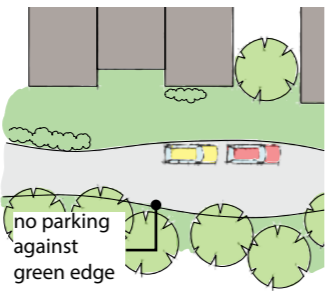

Parking arrangements			
Off plot allocated		Suitable solution	
Mews	Most parking is to be integrated on plot with some informal off plot spaces. These are to be discretely marked and should not dominate the streetscape.		
Front courts	Limited to no more than 4 spaces per group. This arrangement allows good overlooking especially on the opposite side of a road to apartments laid in discrete groups.		
Rear courts	These are small local parking areas, overlooked and serving no more than 6 units. The space should have generous planting and trees to increase the quality of the space.		
Parking arrangements			
Off plot non-allocated		Suitable solution	
Primary/Secondary Streets	Visitor parking will be provided within parallel parking bays located within the verge and street tree zone. Bays will be discretely marked with a 500mm strip along the carriageway side to encourage parking closer to the footway. There will be no more than 3 parking bays per group.		
Tertiary Street	Parking bays to be parallel to the road, marked discretely and may be located within the carriageway reducing the street to 2.75m creating localised traffic calming. Parking should not dominate the street.		
Green Lanes	Parking should be located informally and discretely marked. Parking should always be away from the green edge and be located within the carriageway reducing the width to a maximum of 2.75m creating localised traffic calming. Ad hoc parking along the green edge is to be discouraged at all times by use of a rill or ditch detail. Parking should not dominate the street.		

Table 7: Car parking - off plot allocated and un-allocated

Apartments		
Undercroft/ underground parking	This arrangement is used primarily for apartments in the higher density areas. Choice of material is important as this will dominate the streetscape at ground level. Location of door/entrance to parking area should be discretely positioned. Car park ventilation should be discreet and designed to empathise with the scale and rhythm of the streets scene. Direct view in to the car park should be minimised.	
Garages	These should not dominate the street scene. Consideration should be given to the space in front of garages as cars parked in front should not hang over the public footway. Integral garages in higher density areas can create 'dead' street frontage and should be avoided. Exceptions are with a mews environment. Please refer to "Fig. 23: Approved garage dimensions" on page 26 for approved internal dimensions and allowances should they be used for cycle storage requirements.	
Open Court	Marked bays overlooked by fronts of apartments partly enclosed by building/ walls and within depth of pavement.	

Table 8: Car parking - Apartments

1.4 Best Practice Plot Assembly

These examples of Best Practice Plot Assembly and those on the following pages have been constructed to cover several issues that must be considered at the outset when designing a site layout. These issues become even more important when designing housing to higher densities (over 35dph).

The plot assembly drawings do not include back to back distance, vehicle tracking or other standard design criteria. They cover issues that mainly deal with access, bin and bike stores and security.

Reference should be made to Secured by Design principles.

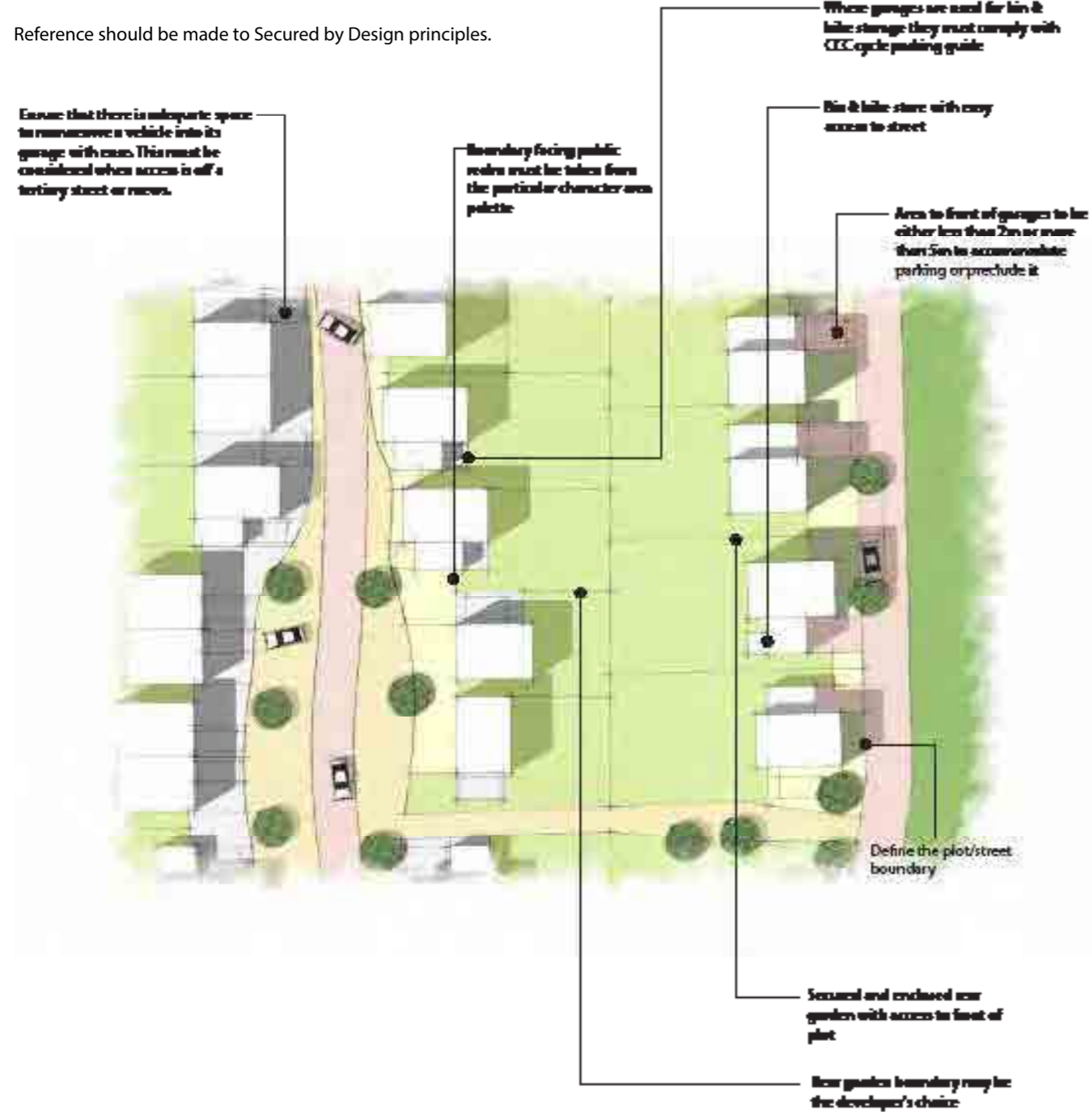


Fig. 25: Illustrative Best Practice Plot Assembly layout

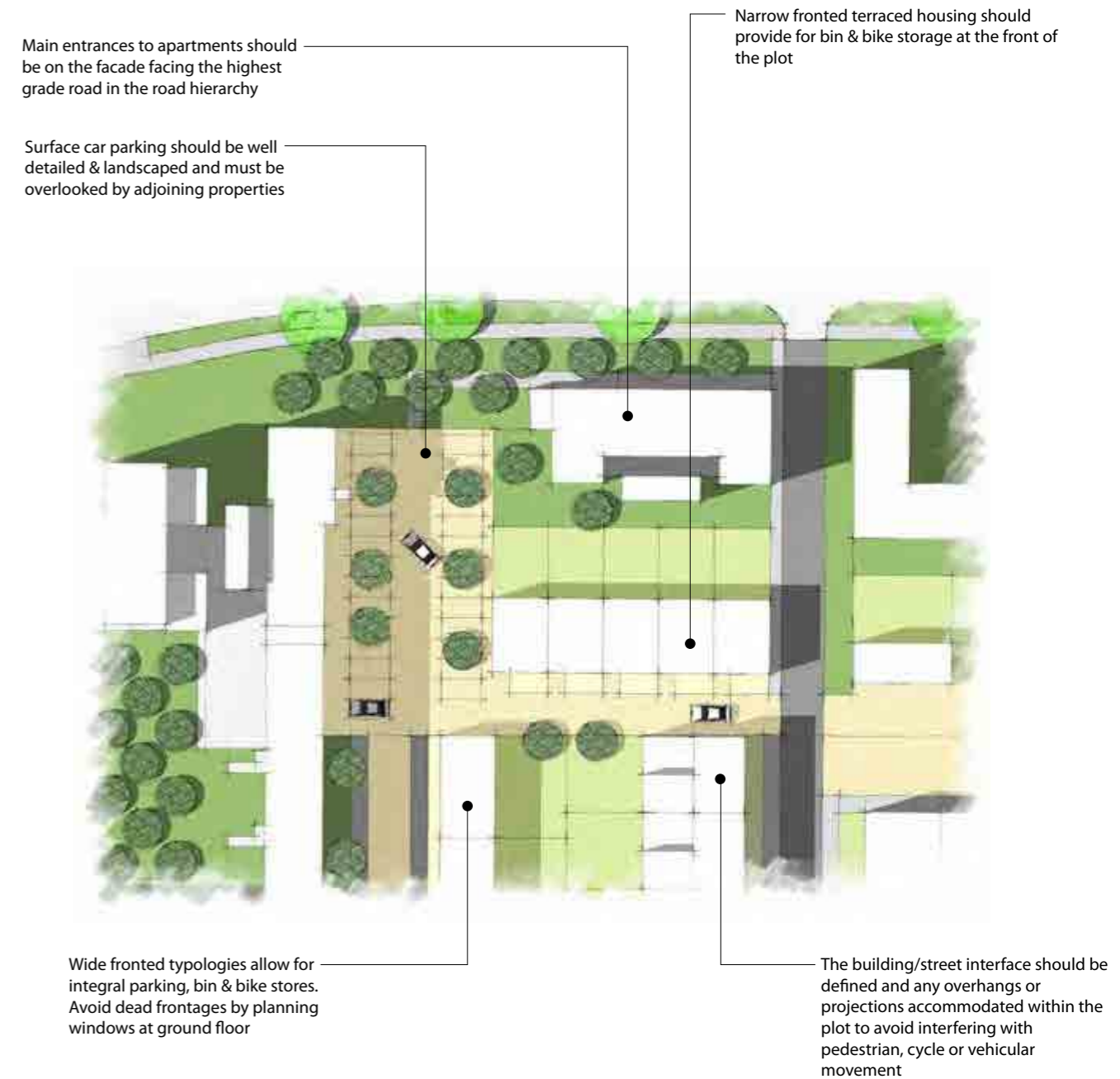


Fig. 26: Illustrative Best Practice Plot Assembly layout

Best Practice Plot Assembly

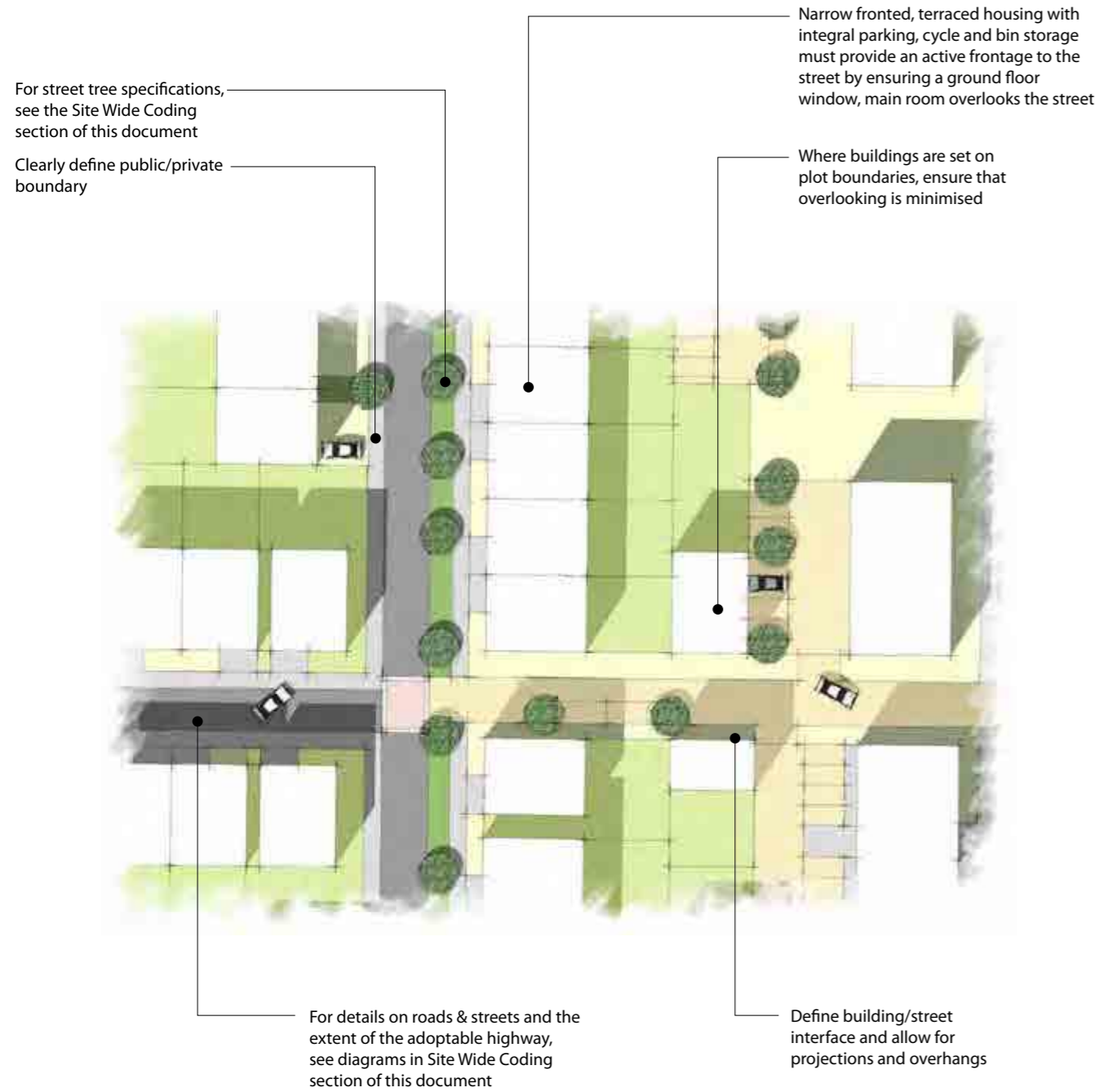


Fig. 27: Illustrative Best Practice Plot Assembly layout

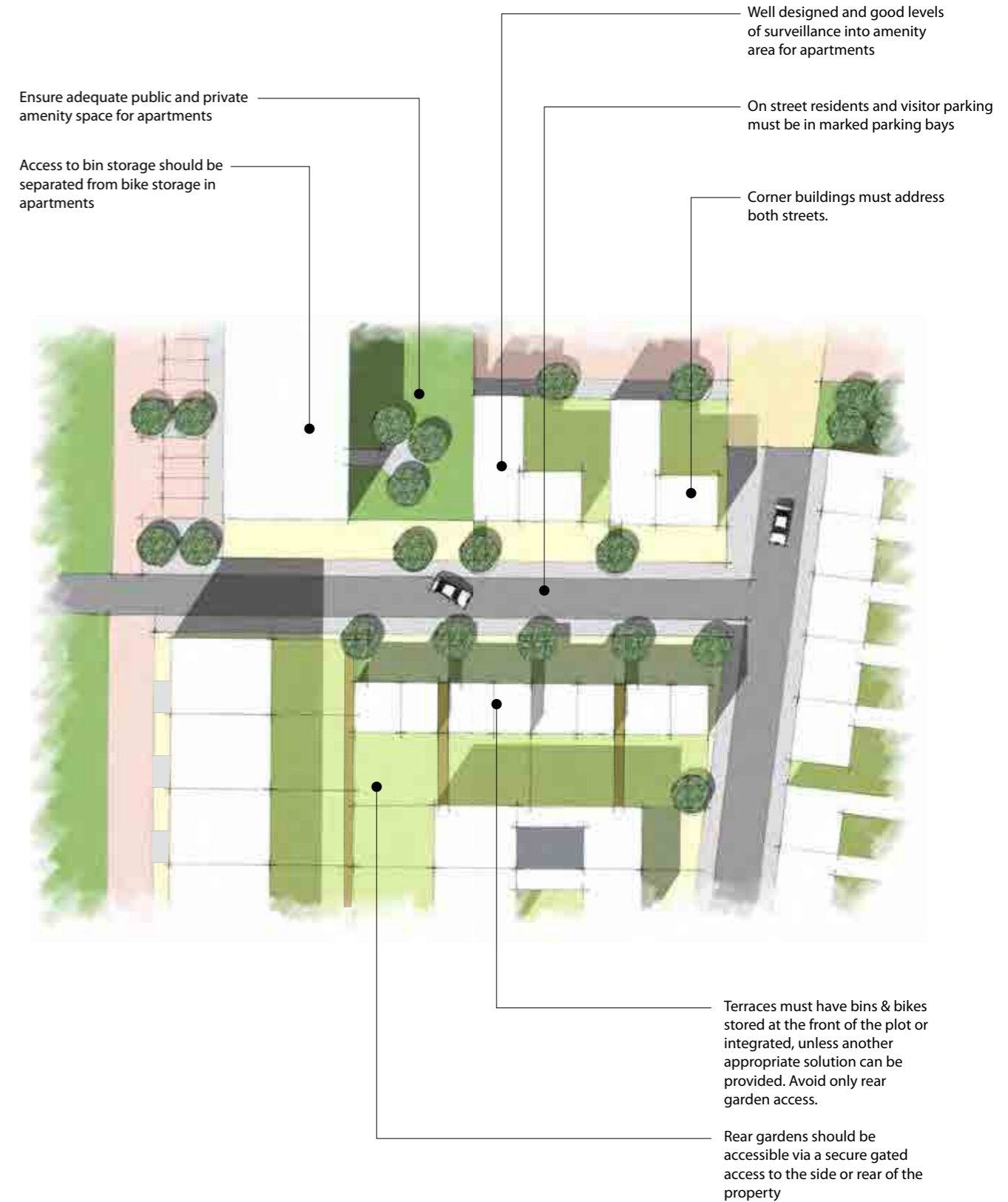
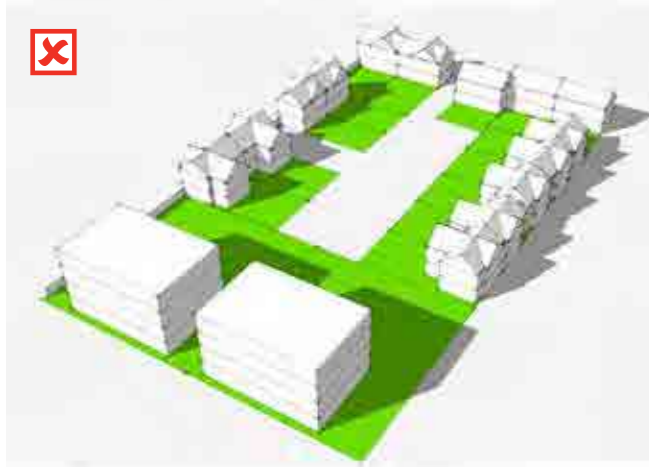


Fig. 28: Illustrative Best Practice Plot Assembly layout

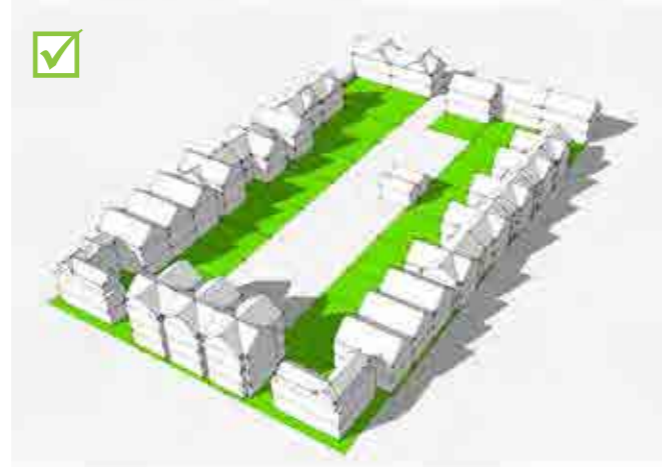
1.5 Transitions in Style

Transitions in scale and massing

There must be at least one unifying element in every street scene. This may be the building line, the storey height, the window proportions, the materials or the colour.



Sudden changes in scale and massing should be avoided. Splits the perimeter block in two.



Maintain the consistency of the perimeter block with a gradual increase in scale and massing.

Building heights, scale and density should blend to avoid sudden changes in character.



Scale and massing incongruous and disrupts integrity of perimeter block.



Gradual increase in scale and density along street from less dense areas to primary frontages.

Transitions in style



Avoid dramatic changes in styles, features, materials and articulation of character, either across streets or within perimeter blocks. Integration of styles and character should be seamless between parcel boundaries and character areas.



Proportions of elevations and their details should align. Colours, materials and textures should be harmonious. Street treatment should be similar in scale and articulation.

Changes in character should preferably occur at the back of plots or at either side of major landscape features, such as the plantations.

1.6 Street Furniture

Examples of street furniture

The range of street furniture proposed for Clay Farm uses simple forms and materials in contemporary designs. The street furniture in the Long Road Plantation and Royal Showground character areas should use a combination of metal and timber, however the furniture in the Brookside open space will be all timber to reflect the more rural quality of the area. In the Hobson's Square character area the furniture will be predominantly metal, (polyurethane, avoiding polished stainless steel).

The following types of street furniture are considered appropriate for the use within the site - subject to approval.



- 1 Galvanised or Polyurethane covered bollard
- 2 Hardwood timber bollard
- 3 Illuminated bollard
- 4 Timber kneel rail
- 5 Timber seat

- 6 Timber bench
- 7 Tree grille*
- 8 Sheffield cycle stand
- 9 Timber clad bin

* Tree grilles must conform to the requirements of HERCS.

Fig. 29: Street furniture matrix

1.7

Landscape, Open Spaces and Biodiversity

Landscape key principles

Clay Farm forms an important gateway into Cambridge and marks the boundary between the open countryside and the City.

The proposed landscape should be designed and developed in such a way as to:

- create a hierarchy of clear and legible spaces for all users
- complement and aid the integration of new development into the wider landscape
- help create a new character for the proposed development and Green Corridor
- enhance the link between the city and countryside
- provide opportunities for increased biodiversity

- provide new recreational opportunities, including links to the Green Corridor
- creation of green links through the development to the Green Corridor
- retain existing plantations, hedgerows, tree belts and water courses where possible
- provide wildlife corridors through the development
- create a boulevard spine road and other tree lined streets
- maintain and enhance Hobson's Brook edge

Trees planted in public areas are to be a minimum size of 20-25cm girth or equivalent evergreen / multistem.

Tree planting should be included within streets and parking areas where possible. Trees are to be planted a maximum distance of twice the mature canopy diameter apart.

Refer to chapter 10 of the [Cambridgeshire Design Guide for Streets and Public Realm \(2007\)](#) for minimum planting distances.

All shrub and hedge planting along the Spine Road or in a strategic open space should be a minimum of 10L pot size. All other shrub and hedge planting publicly visible areas including front gardens to be a minimum of 5L pot size. Planting density is to be appropriate to the species selected to ensure a minimum of 75% coverage after one growing season.

Large tree species to be placed wherever possible, especially in open spaces and Green Lanes. Species to be consistent along any one road, (not dotted). Avoid fastigate tree species due to difficult maintenance regime. Developers to incorporate sufficient robust foundations to accommodate tree planting.

For retention and management of existing plantations etc. refer to [Plantation Management and Landscaping Proposals Jan. 2011](#).

For protection of ecology and biodiversity enhancement, refer to the approved [Site-Wide Nature Conservation Management Plan](#).

Opportunities for increased biodiversity should be integrated into the development as recommended in [Biodiversity for Low and Zero carbon Buildings \(2010\)](#).

Refer to HERCS for minimum requirements of tree design within the public highway.

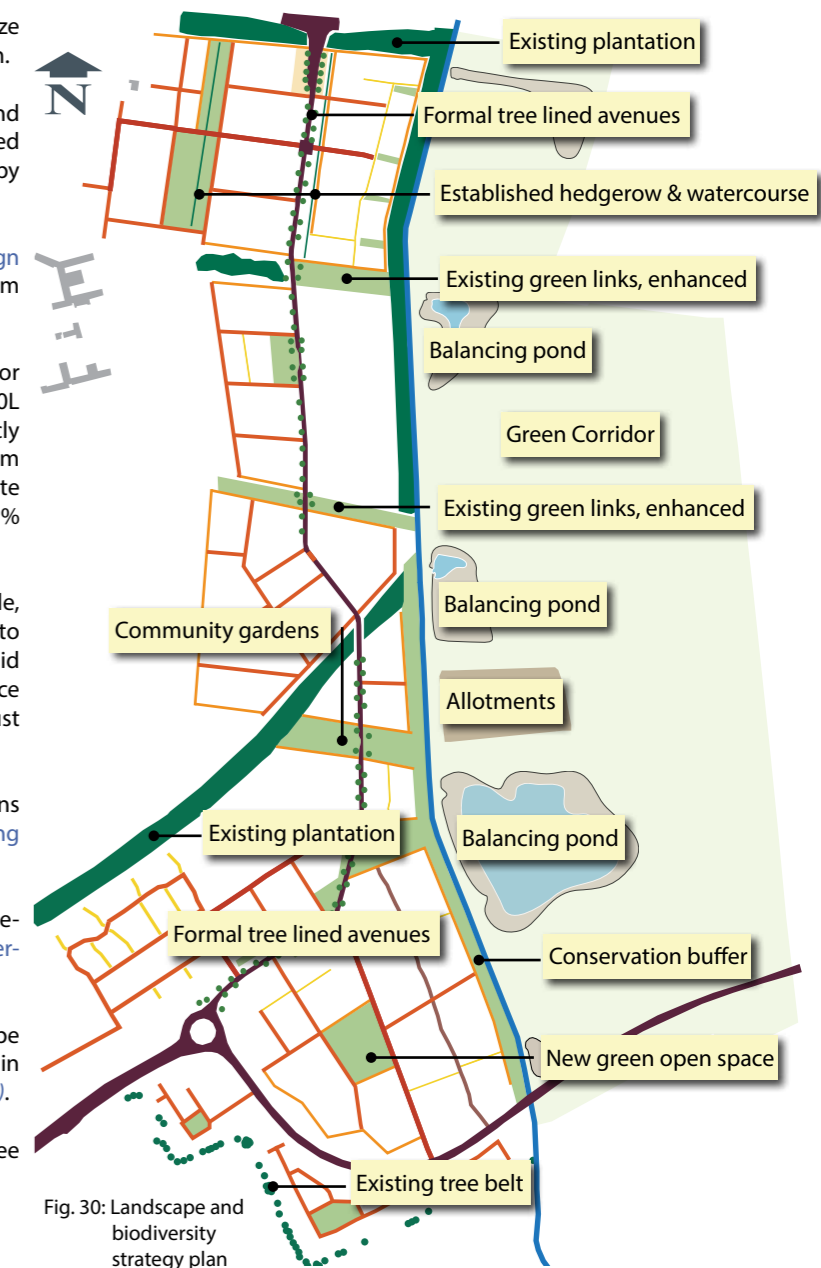


Fig. 30: Landscape and biodiversity strategy plan

1.8 Public Art Strategy

embedded art programme • cultural activity • wayfinding

Vision

Art will be embedded into the fabric and life of Clay Farm, through both permanent physical works, such as street furniture and sculptural wayfinding, and temporary activity - based projects working directly with residents.

The idea is to provide a distinctive local environment which is better achieved by this integrated approach rather than by building individual standalone works.



Key Themes

There are four public art themes for artistic engagement across the development:

- Biodiversity
- Connectivity
- Innovation
- Sustainability

Artists will be briefed on these key themes, involved in further consultation with local people, and will be part of a wider design team so that their influence is central and not merely an 'add on' element.



Embedded Art Zones

The Public Art Strategy includes 5 embedded art zones within which public art will take place:

1. The Southern Approach
2. The Northern Approach
3. The Community Square (Hobson's Square)
4. Hobson's Brook / Green Corridor
5. Art and Play (not shown)

These are shown in Fig. 31 and provide good coverage in terms of geographical area and in terms of phasing of the development, so that public art will be provided from the very first phase of development (Southern Approach) and then gradually over the years, and with the involvement of new residents.

Reference should be made to the [Clay Farm Public Art Strategy \(Nov. 2010\)](#) and to the [Strategy for Youth Facilities and Children's play provision \(Sept. 2010\)](#).

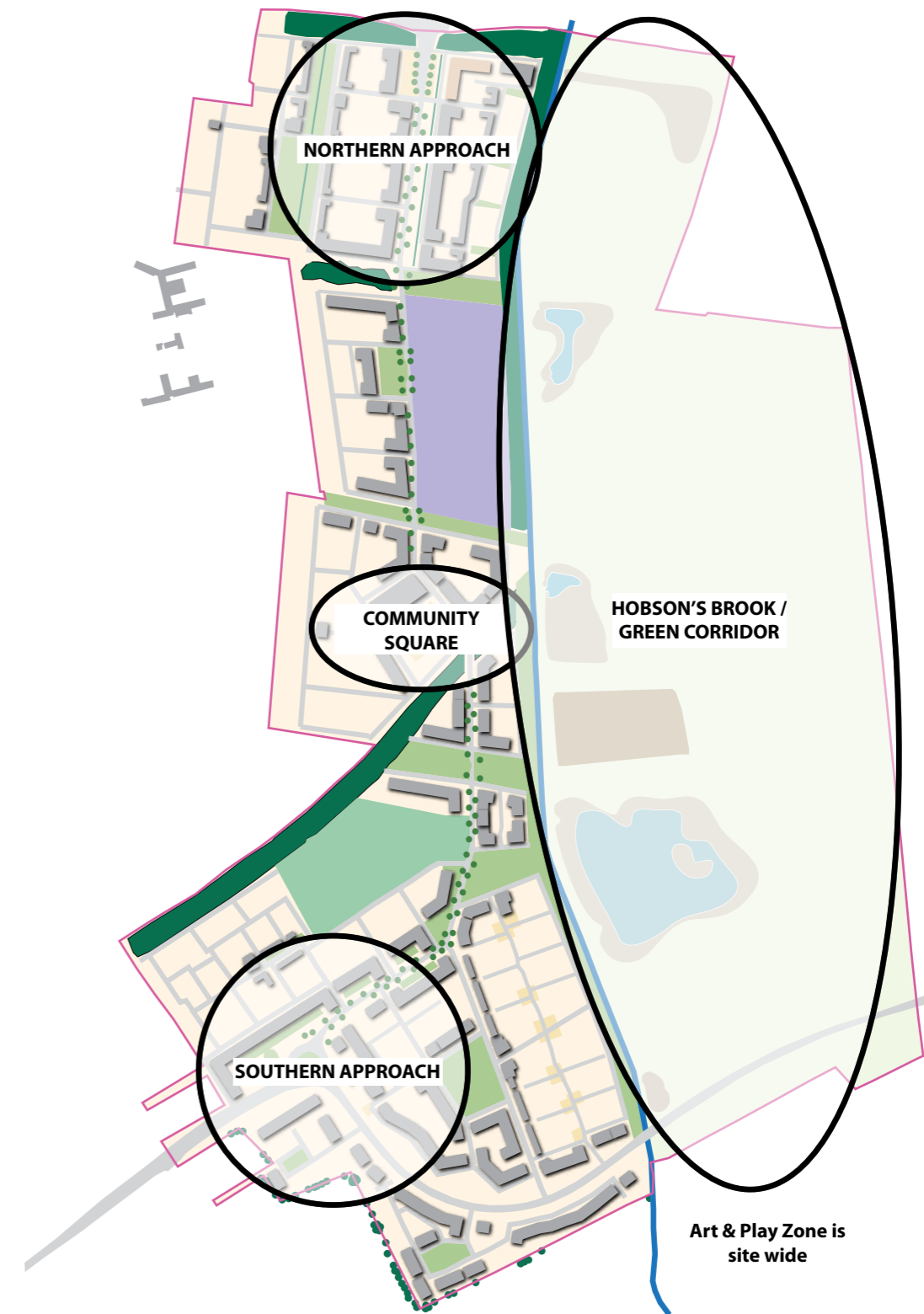


Fig. 31: Embedded Art Zones

Youth and children's play strategy

Introduction

The Clay Farm Children and Young People Play Strategy sets out the type and content of the play facilities at Clay Farm.

The key objectives / principles of the strategy are:

1. To ensure the creation of a varied, challenging, inspirational play environment for users of all ages, with locally distinctive spaces which draw on the special characteristics of the site and Trumpington.
2. To ensure the whole development is welcoming and feels inclusive to children & young people, and that play spaces are easily and safely accessible.
3. To provide clarity on the nature and location of play provision throughout the site, ensuring they are sustainable and durable.
4. To ensure a co-ordinated approach to provision of play space across the development and throughout the different phases, linking with other site wide strategies such as the public art strategy.
5. To engage with local children & young people and involve them in the design of the play environment to foster a sense of pride and ownership of the places and spaces created.
6. To ensure integration between existing and new communities.



Design

The play spaces throughout the development will be site specific, bespoke, appropriate to their location, naturalistic in style and with an emphasis on natural play. This will be integrated with more structured play space and equipment.

Each play space will be unique and inspiring, and imaginative play will be encouraged by the use of non-prescriptive equipment. They will be welcoming and inclusive in their design, well overlooked and cater for a range of ages.

Accessible equipment which caters for both disabled and non-disabled children will be incorporated into the design of the play spaces. Items such as basket swings can be popular with a variety of users.

Natural features will be incorporated into the design of the site. Boulders, logs, ditches and ground mounding can all provide different and varied play opportunities.

Design guidance would be derived from Play England, PLAYLINK, The Forestry Commission and the City Council among others.



Play provision

The approach to formal unsupervised play is based on the National Playing Fields Association (NPFA), now Fields in Trust, guidelines and designations.

The NPFA designates three types of formal unsupervised play space, these are:

Local Area of Play (LAP)

Local Equipped Area of Play (LEAP)

Neighbourhood Equipped Area of Play (NEAP)

A fourth type, a Super Leap (SLEAP), is proposed, this is the equivalent of a large LEAP with an additional piece of equipment.



The Green Corridor

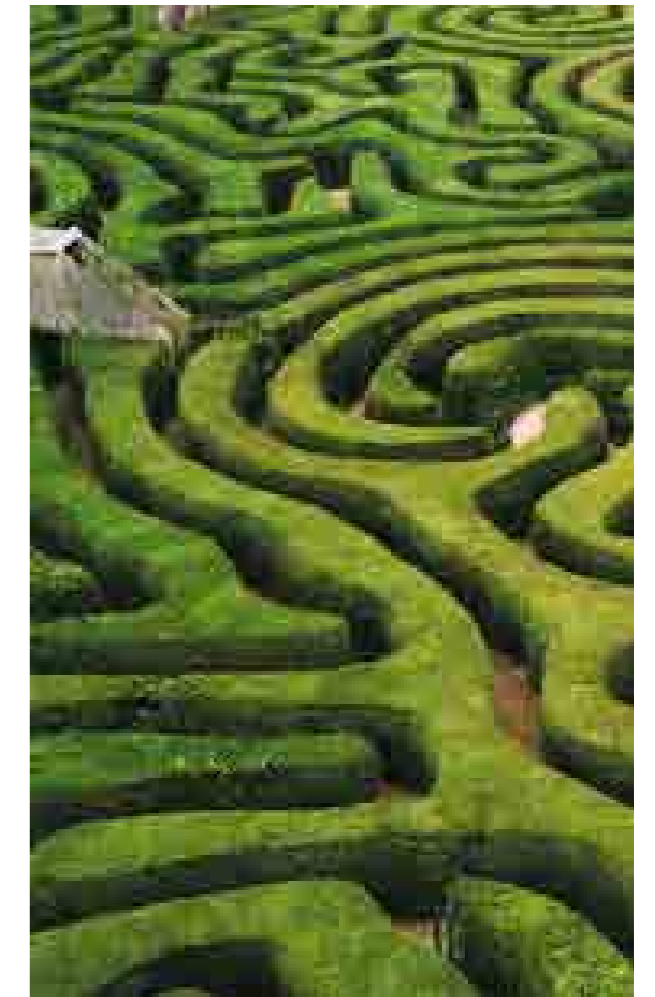
Whilst not covered by this Code the Green Corridor provides an important recreational resource and contains some formal provision, such as the NEAP, the playing fields and an area for active recreation.

The content of this area is yet to be defined, but may include a BMX track, adventure play area and basketball court.

In addition to the formal facilities, the Green Corridor will also provide opportunities for more informal or "incidental" types of provision, providing a valuable amenity to all residents and the surrounding population.

Community Building

The provision for young people and children is not simply reliant on outdoor areas. The community building in the centre of the development will also provide an indoor facility where activities can take place and young people will be made to feel welcome.



1.10 Drainage

M Strategic surface water drainage strategy

A strategic sustainable surface water strategy (SUDS) has been prepared by Scott Wilson.¹

The following text and diagram summarise the proposals and demonstrate the site-wide SUDS requirements which are to be implemented throughout the scheme.

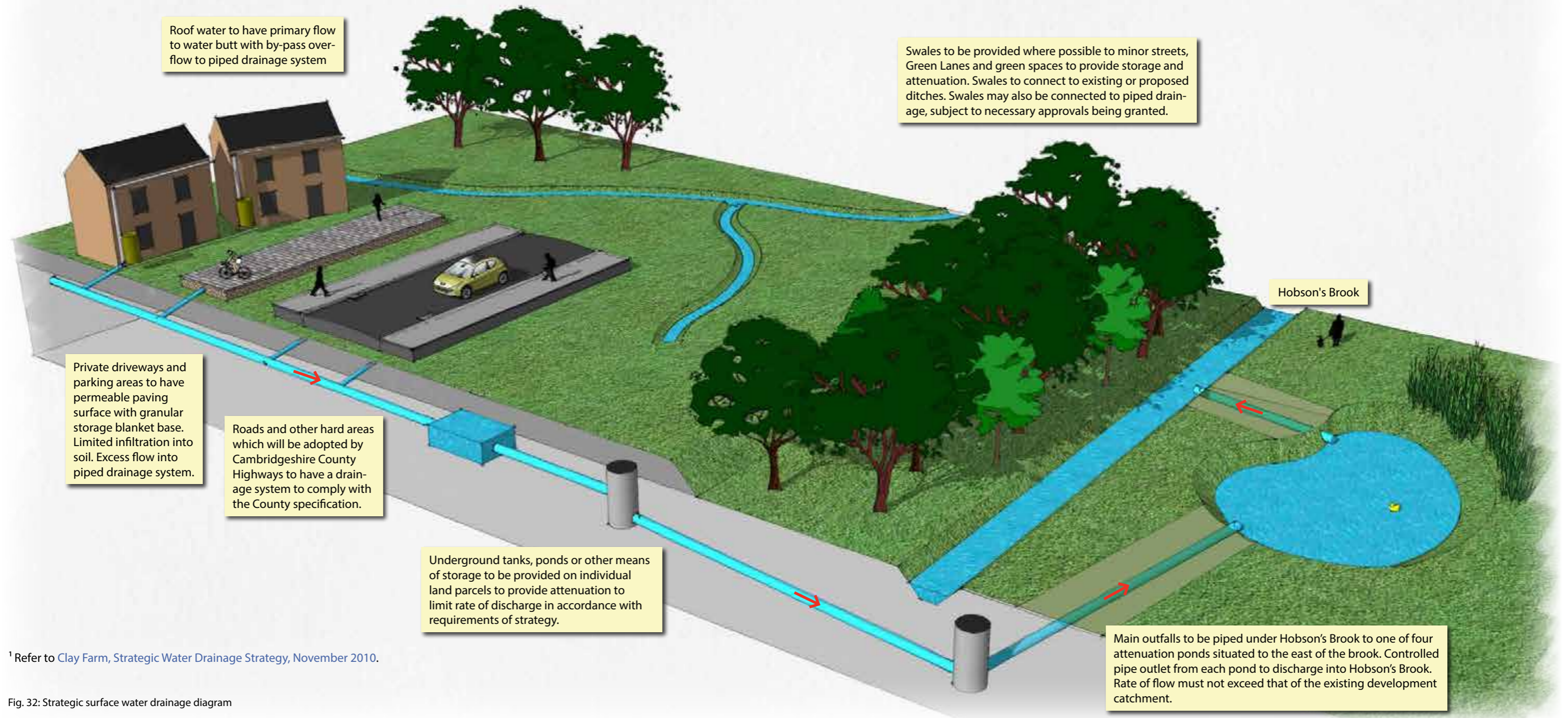
The fundamental principle of the Clay Farm Strategy is that the flow into Hobson's Brook must not exceed that of the existing Clay Farm area and that the water quality must not be impaired in any way.

This is to be achieved at the regional control level by the provision of balancing ponds to the east of Hobson's Brook and at source and site control level by restriction of run-off from each land parcel to levels agreed within the strategic strategy.

Each developer will be required to implement a sustainable drainage proposal which will be submitted to Cambridge City Council for approval. There are a range of SUDS options available which will suit the constraints of the particular site. These may include water butts, permeable paving, ponds and underground storage tanks, swales and ditches, rain-gardens and rills. A number of these features are shown on the indicative SUDS strategy arrangement below.

Above ground solutions must be considered first with an underground tank solution being the least preferred option.

For further information, developers should refer to the [Cambridge Sustainable Drainage Design and Adoption Guide](#).



¹ Refer to [Clay Farm, Strategic Water Drainage Strategy, November 2010](#).

Fig. 32: Strategic surface water drainage diagram

1.11 Waste and Recycling

Section 2.5 of the Sustainable Design and Construction (SPD) prepared by Cambridge City Council sets out the 'essential design considerations' for the Recycling and Waste Facilities, and this has been extensively used to inform the refuse strategy set out in this section. The strategy makes reference to Government targets as well as the targets for reducing waste and increase recycling in accordance with the [Cambridge and Peterborough Joint Waste Management Strategy](#).

Strategy

The strategy for the storage and collection of general waste and recycling will be based on the following criteria:

Fortnightly collection of the following:

- dry recyclable
- organic waste
- residual waste

Site wide recycling facilities should be located as shown in "Fig. 34: Recycling Facilities & Utilities Infrastructure location plan" on page 44. Storage or collection points for two wheeled bins, will be convenient for easy collection within 30m of the dwelling and with easy access by vehicles within 25m of point for collection. Storage areas will be designed to accommodate the Council's preferred types of receptacles.

Refuse storage for dwellings and apartments will be based on requirements current at the time of design. These should be based on population rather than number of dwellings.

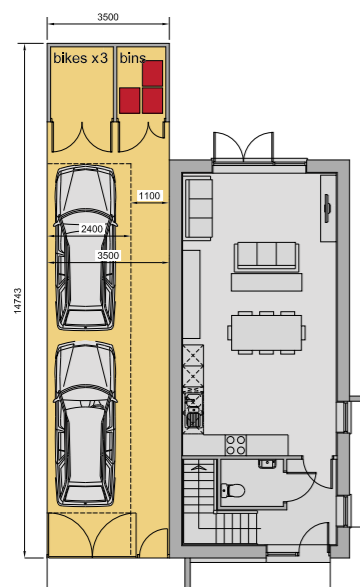


Fig. 33: Illustrative waste arrangement in dwelling

Communal waste storage areas should be provided in well designed structures which integrate well with both the built form and public realm. Such facilities need to be adaptable to respond to changing needs over time.

Dwellings

Storage areas should be segregated, covered and ventilated in order to accommodate the minimum requirement per dwelling. All refuse will be taken to kerbside collection points.

Apartments and Non-residential Uses

Provision for refuse and recycling storage will be:

- Provided in well designed and ventilated accommodation
- Easily accessible – location in low and medium density areas integrated with cycle and car parking strategy set out in the Parking section on Table 5 on page 24 .

Apartments in high density areas will be served by large scale communal refuse and recycling facilities integrated with main entrance. These communal storage facilities must be accessible to within 10m by a large collection vehicle. Shared subterranean facilities will be considered.

Site Wide Waste Recycling Facilities

Two facilities will be located on site – potential locations for these are in the neighbourhood square and in the vicinity of the School Square South as indicated in Fig. 34. These will be located underground and will be subject to agreement with the Local Planning Authority (LPA).

These locations both minimise disturbance to neighbouring properties and are easily accessible.

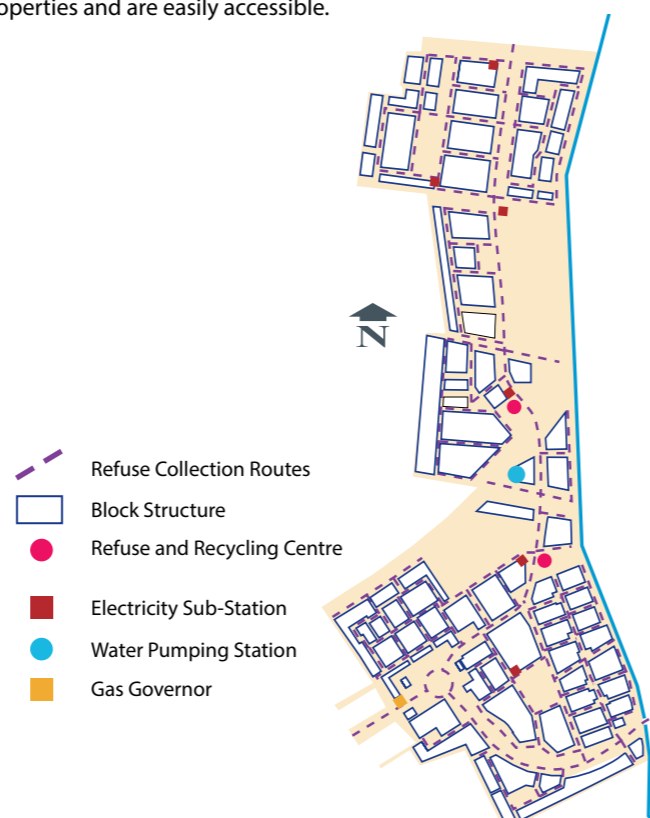


Fig. 34: Recycling Facilities & Utilities Infrastructure location plan

Utilities

These are considered to be the key issues affecting good practice for ancillary infrastructure. The utility systems will be installed in service corridors located within the adoptable highway.

Where practicable, the service corridor for the gas, water, electrical and data systems will be located within a 2m zone beneath the footways, in accordance with the requirements set out in the [National Joint Utilities Group \(NJUG\) Guidelines on the Positioning and Colour Coding of Underground Utilities' Apparatus, Volume 1, Issue 2: November 2007](#).

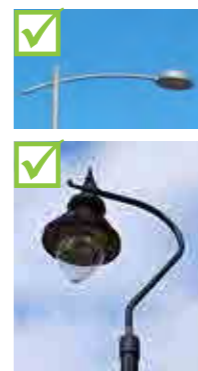
Utilities Infrastructure

Possible locations, see "Fig. 34: Recycling Facilities & Utilities Infrastructure location plan" on page 44, shall be adjacent to built forms, avoiding being located near tree planting or on isolated plots of land. Where possible the enclosure is to form part of adjacent built forms. Materials and detailing to match adjacent built forms. All to comply with the requirements of the electricity provider.



Street lighting

External lighting should be kept to a minimum with light fittings that minimize intrusive light spillage beyond the intended area of public realm to be lit. Open spaces should be lit only if necessary, to provide safe identifiable routes or to provide feature lighting. Lighting levels along the Green Links should be kept to a minimum with lighting columns located on the edges next to pathways.



Lighting levels should be to adoptable standard or as agreed with the Planning Authority.

An integrated approach should be adopted to the design and positioning of trees, lighting columns and other street furniture in order to coordinate these items with the installed utility services and to minimise street clutter. For example, signage should be fixed to existing poles / posts such as lighting columns where possible. Litter bins can be similarly attached.



1.12

Utility boxes

All meter boxes and all other apparatus shall be located unobtrusively. If external, then they must be positioned away from the front or prominent locations. Position of meter cupboards should be concealed against adjoining surfaces. The use of smart meter boxes should be encouraged.

Where more than one box is required in close proximity they should align to each other and be spaced evenly. Colours of materials to be sympathetic to host materials.



Pipes and flues / vents

To be located in a sympathetic manner, to align with immediate features. Materials and detailing to be architecturally integrated.

Letter boxes

To be located so that they are visible from public access locations. In apartments, individual boxes to be provided and accessible from public areas.



Photovoltaic Cells, Thermal collectors

To be sited such that their location does not impede or interrupt key views and streetscapes. They shall be incorporated into the structure and design of host properties in a manner that either enhances the built form or is hidden from direct view.



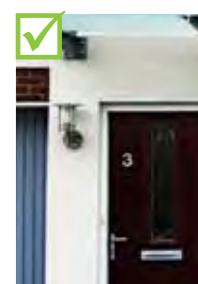
Wires and cables

To be hidden from view at all times unless required for safety or maintenance purposes.



External domestic lighting

Developers are to ensure that lights are not pointed directly at windows of other houses. Security lights fitted with passive infra-red detectors and/or timing devices shall be adjusted so that they prevent annoyance to neighbours and are set so that they are not triggered by traffic or pedestrians passing outside properties.



1.13 Sustainable Development

Our main ambition in building a sustainable community at Clay Farm is to ensure that the new development makes a lasting contribution to the quality of life enjoyed in the immediate and surrounding area.

The Clay Farm community will:

- demonstrate that leading edge new community development is not just about bricks and mortar, but about people
- be characterised as a place which engages its residents in its development and long term future
- provide homes of exceptional performance that are cost effective and respond to modern lifestyles
- provide community facilities and amenities that support people's real needs
- demonstrate best practice in sustainable development with high quality buildings and landscape



An holistic approach to sustainability will be taken, which embraces urban design and architecture, energy, transport, pollution, materials, water, ecology, land use and health and well being.

All homes, affordable and private for sale, will be designed to meet the Code For Sustainable Homes at the level relevant to the time of Reserved Matters Application submission, Lifetime Homes, Secured by Design and for non-residential buildings a BREEAM level as agreed with the City Council.

Designers must refer to and take account of their Affordable Housing partner's Employers Requirements.

There is an aspiration by both the main developer team and the City Council, to achieve Building for Life gold level for all Reserved Matters Applications. This should also be the aim of other developers.

Safety

All designs must follow the Secured by Design principles to ensure that Clay Farm is a softly policed neighbourhood where people have a stake in their future and a pride in their surroundings.

Energy and water conservation

All homes will be designed to the appropriate Code for Sustainable Homes level at the time of their design.

Contaminated Land

As a major development works will be undertaken in six phases. The original intrusive investigation provided a general coverage for the site and installation of deep boreholes (including gas monitoring stand pipes). The investigation so far has not identified significant contamination; however there are still areas that have yet to be targeted. These areas will be investigated during the ground works for each phase. Depending on the outcome of the further intrusive investigation the possibility of gas mitigation measures in some areas cannot be dismissed. Developers will therefore need to be aware of these matters when submitting salient structural details.

Road Traffic Noise

Areas of the development will experience high levels of noise due to neighbouring commercial activity or road noise. Noise sensitive areas within the site are also covered by conditions 61, 62 and 63 of the Outline Planning permission.

Acoustic treatment of noise sensitive rooms typically will be required along with alternative ventilation which may have a negative sustainability impact. Noise mitigation measures should therefore be integrated into the design from the outset in order to achieve acceptable internal noise levels and sufficient ventilation and summer cooling with the minimal sustainability impact.

This may involve shielding with a neighbouring structure, positioning of noise sensitive rooms away from the noise source or providing rooms with additional windows to provide adequate ventilation on facades not affected by noise. All external amenity areas such as gardens or balconies shall be protected from excessive noise.

Further advice can be found in [BS 8233: 1999, Sound Insulation and Noise Reduction for Buildings – Code of Practice](#).

Design for disabilities

The public realm design and the design of all buildings will meet the current Building Regulations (part M deals with design for impaired movement) and all homes will meet Lifetime Homes standards and follow the principles of Building for Life criteria.

Construction

All contractors will be required to participate in the Cambridge City Council Considerate Contractors Scheme.

Biodiversity

- Native tree and shrub species to be used alongside exotics that provide useful nectar, berries etc.
- SUDs planting as per adoption guide will enhance these features for biodiversity
- Installation of nest boxes and roosting sites into built environment

Designs and recommended numbers per unit can be found in [Biodiversity for Low and Zero carbon Buildings \(2010\)](#).





character areas

2.0 The Character Areas

The perimeter blocks shown on the Urban Design Framework Plan, (PP6), show the arrangement of built form and its relationship to the public realm.

The built form within each block will be designed to create architecture appropriate to the particular character area in which it sits, as well as meeting the storey heights and density requirements of the approved parameter plans.

For example the blocks in the Royal Showground facing Hobson's Brook will be more fragmented and more irregular than the blocks in Long Road Plantation which will be more ordered and formal.



Fig. 35: Character Area location plan

An Introduction to the Character Areas

The site is divided into three distinct character areas: one to the north, one in the centre and one to the south. Throughout this document these character areas are referred to as Long Road Plantation, Hobson's Square and Royal Showground respectively.

A brief description of each character area can be found at the beginning of each character area section. These sections describe the character, key groupings, building typologies, landscape and other land uses. They set out the design intentions for each of the three character areas.

It is the responsibility of the designer to ensure that proposals meet the requirements set out in the Parameter Plans and that they comply with the various design guidance referred to within the Site Wide Coding section.

Designers should then use the site wide coding to identify the road types, plot assemblies and typologies that are relevant for use within each character area and then use the appropriate character area to inform the design response.

Long Road Plantation



Long Road Plantation is located at the north of the site with immediate access from Long Road. This area of medium/high density development is characterised by urban terraced forms with leafy pocket parks and routes through to the Green Corridor. This area is split into three sub character areas namely *Long Road Gate*, *Hobson's Edge* and *School Square*, each with its own local style.

Hobson's Square



Hobson's Square, at the heart of the development, features a commercial area with local shops and service outlets along with a new community centre. This is the focal point for public transport with bus stops and stations for the Cambridgeshire Guided Bus. This area has three sub character areas; *Mid Brook*, *Trumpington Edge* and *Park Side*.

Royal Showground



Accessed from Shelford Road, the southern gateway to the site. Royal Showground is adjacent to the balancing lakes and ponds in the Green Corridor to the east and is split into four sub character areas; *Grand Court*, *Brookside*, *Addenbrooke's Avenue*, and *Woodlands*. Lower in density than the remainder of the site, this area offers key links into the Green Corridor and direct access to Addenbrooke's Road.



long road plantation

2.1.1 Guiding Design Principles

formal • urban • green parks • squares • tree lined avenues • perimeter blocks • mews • terraces

Long Road Plantation is bounded to the west by the existing settlement of Trumpington, to the north by Long Road, which sits behind an existing tree plantation, to the east by the Green Corridor and to the south by a Green Link which separates it from Hobson's Square, the character area in the centre of the development.

The existing landscape features of the plantations, hedgerows and former agricultural ditches, combine to help create a distinct character in this part of the development.

There are two key groupings proposed. The first is the Northern Arrival Square acting as the gateway into the site from the north. The second is Green Lane Park South, a large open space focused around an existing established hedgerow.

The pattern of the existing hedgerows, plantations and ditches form a roughly orthogonal grid structure to the townscape making it suitable for apartments, terraces and mews with opportunities for more contemporary typologies such as maisonettes and duplex homes.

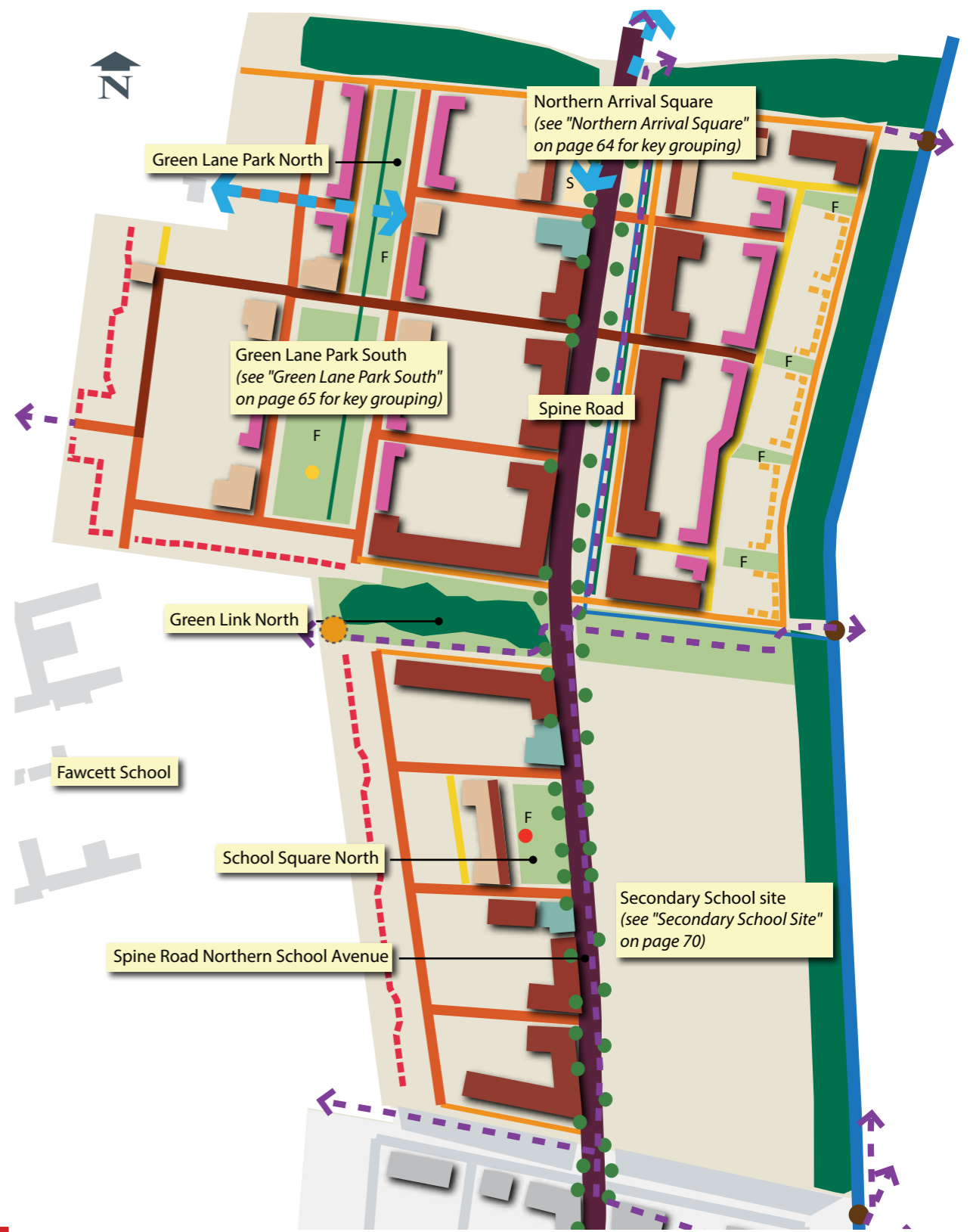
Private gardens will be smaller than in Royal Showground character area, and streets will be narrower. The area is more formal and urban in character with low walls, railings and hedges forming boundaries to dwellings.

The palette of proposed plants and trees will also contribute to the character of Long Road Plantation. Tree species will be selected for their year round colour, white blossom, tight forms and regular crowns, all of which make them suitable for this higher density area. Densities range from 40-60 dph to 45-65 dph.

The materials in this character area will be predominantly, but not exclusively, traditional Cambridge buff brick, weatherboarding, and soft coloured render, natural slate to reflect its location at the rural edge.



PUBLIC OPEN SPACE		URBAN FORM	
	Informal Open Space		Primary Frontage
	Formal Open Space		Secondary Frontage
	Structured Planting		Housing to secure settlement edge
	Existing Plantation/Hedgerow		Built form integrating with a landscape structure
	LEAP		Buildings that assist movement and legibility through site
	SLEAP		Buildings that assist movement around Public Spaces
	Water Courses		Visual Links
STREETS			Cyclepaths and footways
	Primary Road		Bridge link
	Secondary Street		Proposed pedestrian, cycle and vehicular access into Fawcett School
	Tertiary Street		
	Mews		
	Green Lane		
	Square		



M Fig. 36: Urban Form Diagram
The principles of the street hierarchy are mandatory, not the exact alignment.

2.1 Long Road Plantation

2.1.2 Key Parameters

M Densities

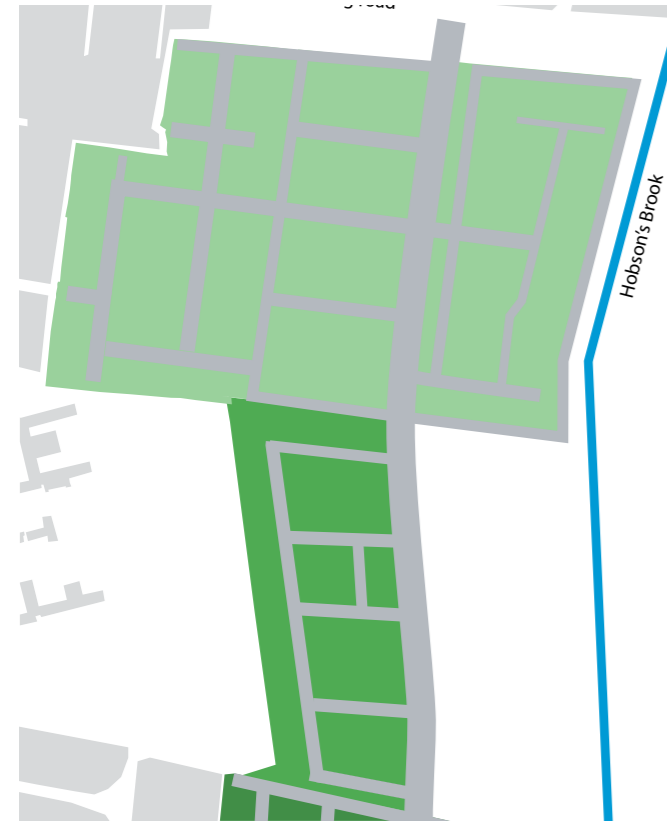


Fig. 38: Density plan

M Building Heights



Fig. 37: Building Heights plan

The Urban Garden area is split into two density ranges.

- 40-60 dph
- 45-65 dph

Densities should decrease:

- towards existing settlement edges
- adjacent to Fawcett School

Densities should increase:

- adjacent to the spine road
- adjacent to public open spaces
- within Hobson's Edge area

- 1.5-3 Storey Zone (6-11m)
- 2-4 Storey Zone (6-15m)
- 3-5 Storey Zone (9-18m)

Building heights should align with the following:

1.5 to 3 storeys	6 – 11m*
2 to 4 storeys	6 – 15m*
3 to 5 storeys	9 – 18m*

Table 9: Building heights matrix

The guiding principles are that buildings should decrease in height towards the existing settlement boundaries to the west and Hobson's Brook to the east. They should increase in height towards the spine road and public open spaces.

Landmark buildings should increase in height above adjacent buildings. Rooflines in general should vary in profile.

*approximate height of building block inclusive of assumed roof pitch or parapet, whichever is higher

2.1 Long Road Plantation



2.1.3 Sub Character Area

Long Road Gate

tree lined boulevards • terraces • formal • perimeter blocks • key buildings

This part of the site is characterised by three public open spaces. we are welcomed into the site by the Northern Arrival Square, an open space created around the existing mature, mixed hedgerow and ditch. It will provide a focal point for the immediate community.

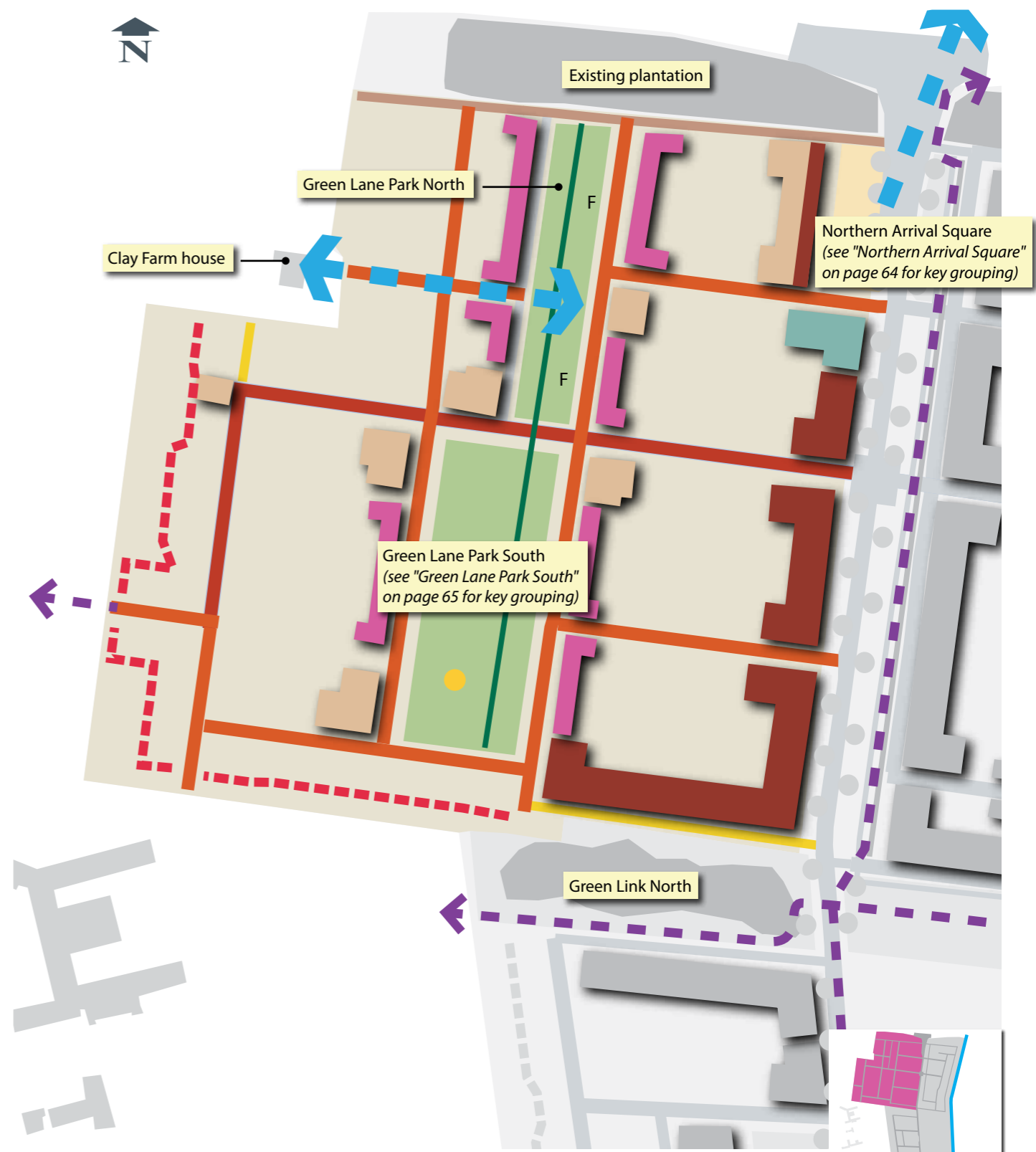
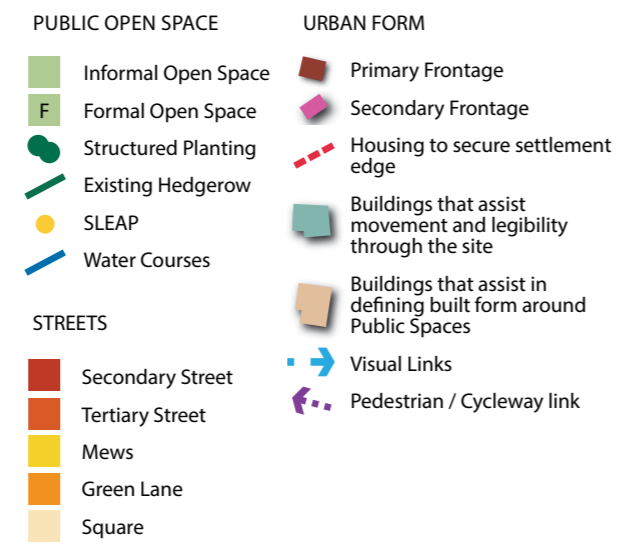
This space is traversed by the Spine Road but the landscape design will ensure that the Northern Arrival Square open space takes visual precedence over the road.

The buildings around this space will include a marker building to the south which will form an important statement through its scale, height and architecture. This will orientate the visitor and provide legibility along the Spine Road in both directions.

There are two more public open spaces within Long Road Gate. They are in the heart of this character area and are bordered by terraces on tree lined avenues with visitor parking arranged between the trees.

To the west of this area is Clay Farm House, a listed building commanding views into the site with its vista terminating across the formal public open space to the east. Similarly the Farm House is visible from within the site and forms a visual stop at the end of a tree lined avenue giving a sense of history and context to the character area.

The layout of Long Road Gate will be characterised by terraced forms which will create regular perimeter blocks reflecting the density requirements of this character area. On plot parking and private and shared amenity spaces will be contained within the perimeter blocks.



M Fig. 39: Extract from Urban Form Diagram - Long Road Gate
The principles of the street hierarchy are mandatory, not the exact alignment.



Hobson's Edge

courtyards • woodland enclosure • long terrace • compact mews

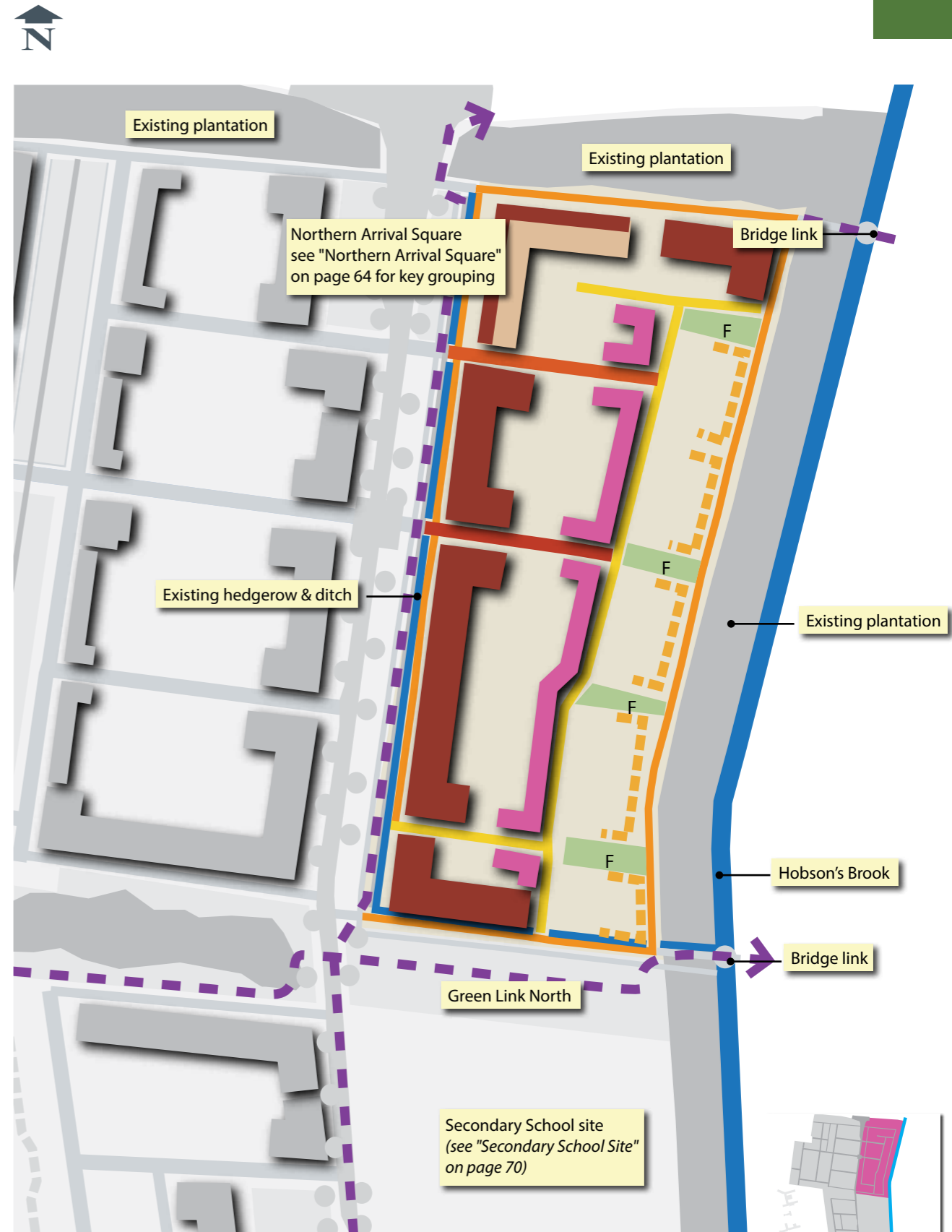
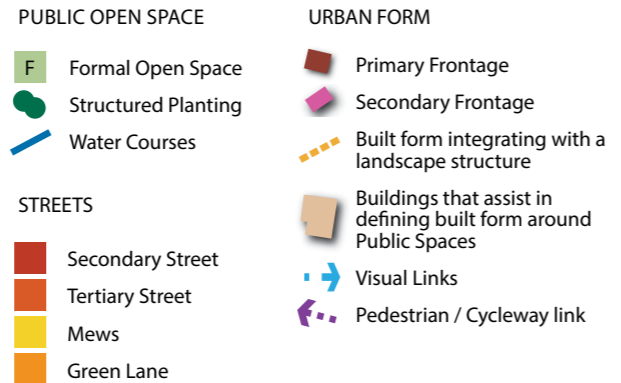
This character area is heavily wooded on two boundaries with formal frontage onto the Spine Road. Access into this area is across a bridge or culvert over an existing field ditch which creates an exclusive and secluded feel to the dwellings in this area, particularly those facing east towards the existing, mature plantation and Green Corridor beyond.

Taking advantage of the predominant landscape features, courtyard houses are proposed running north south whilst smaller units, within intimate mews courts, follow a secondary frontage line at the heart of the site.

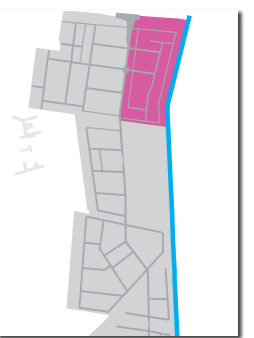
The western boundary follows the existing ditch and an established hedgerow and faces towards the Spine Road. The urban form is within the 3 to 5 storey height parameter and will be formal and robust in scale in order to enclose part of the Northern Arrival Square.

Both the western and southern edges will respond to existing hedgerows and ditches as well as the proposed public open spaces with creative solutions, proposed in Appendix B, which deal with the differences in proposed and existing ground levels.

A further key feature of Hobson's Edge character area are the new bridge links proposed across Hobson's Brook onto the Green Corridor. The southern most bridge is a key pedestrian and cycle path and provides a link from the secondary school to its playing fields in the Green Corridor.



M Fig. 40: Extract from Urban Form Diagram - Hobson's Edge
The principles of the street hierarchy are mandatory, not the exact alignment.



School Square

terraces • formal square • semi-detached • key buildings

This character area includes a pocket park (described as a square) which is located opposite the school site. This will become an important and vibrant meeting place which, it is hoped, will contribute to developing a sense of community.

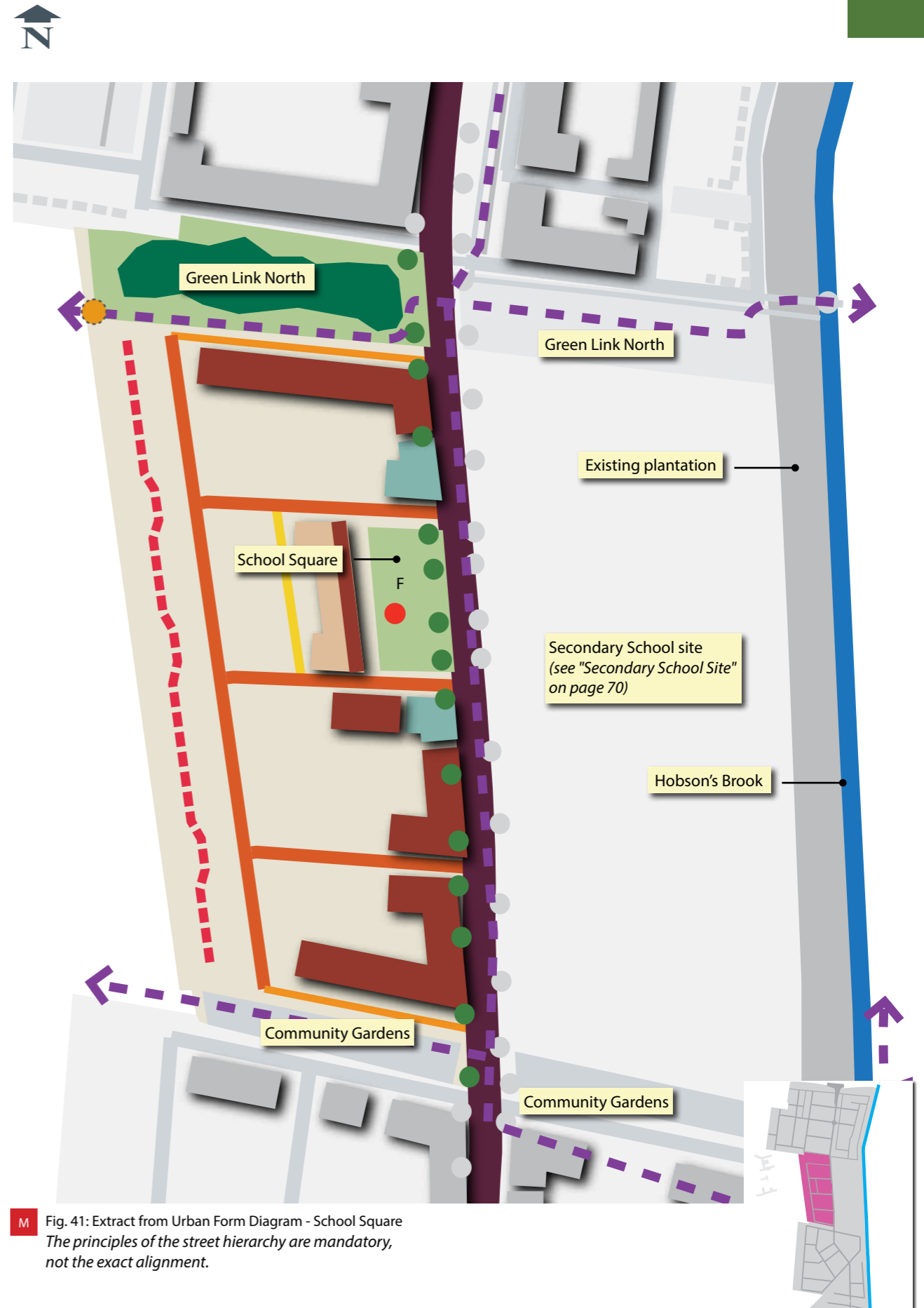
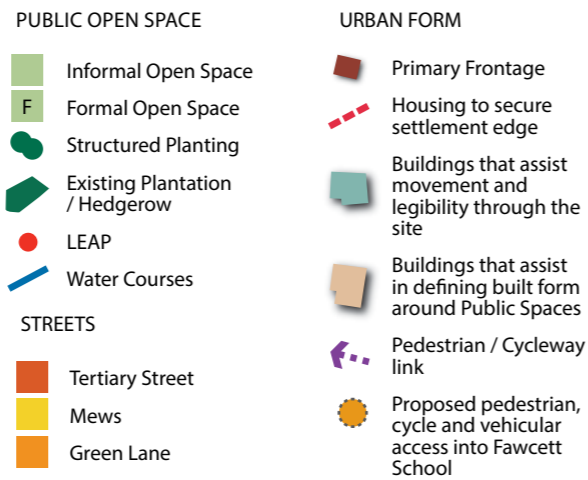
Traditional, semi detached dwellings, 1.5 to 3 storeys high with back gardens, are proposed along the western boundary to align with the existing settlement edge. Higher density development and taller buildings, including apartments, are proposed to the east of this area, facing the Spine Road.

Strong formal buildings grouped around the square will create a sense of enclosure to the meeting space.

The designs for the more dense perimeter blocks within the area will require careful design solutions to incorporate amenity space, waste storage and parking for cars and cycles.

To the north and south of this area are Public Open Spaces which are formed from existing landscape features and access desire lines. These form important strategic routes across this area and onwards to the Green Corridor.

These pedestrian and cycle routes take precedence over traffic routes and are overlooked by dwellings with strong visual frontages.



M Fig. 41: Extract from Urban Form Diagram - School Square
The principles of the street hierarchy are mandatory, not the exact alignment.

2.1.4 Key Spaces and Frontages

Northern Arrival Square

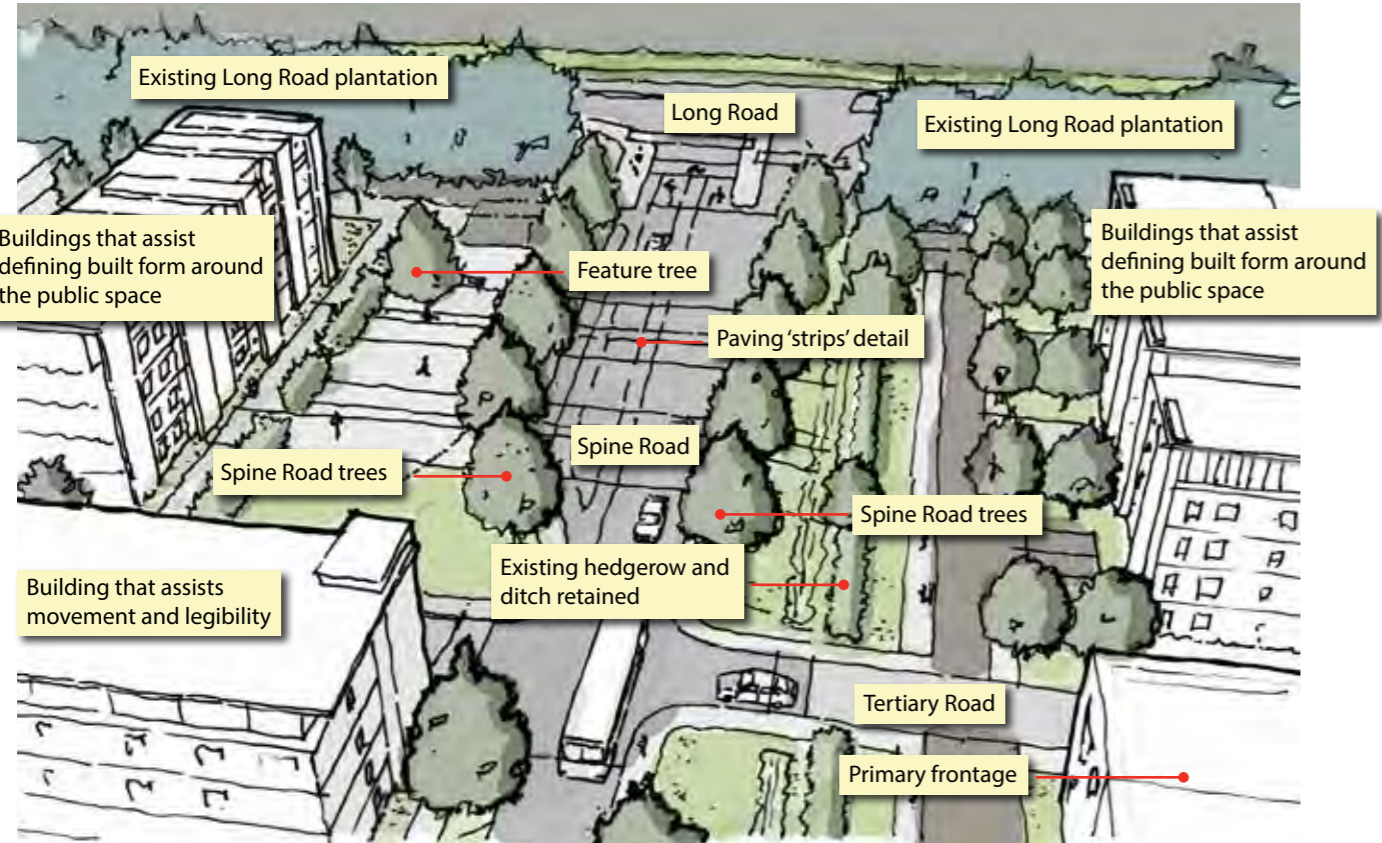


Fig. 42: Indicative sketch of Northern Arrival Square

Green Lane Park South

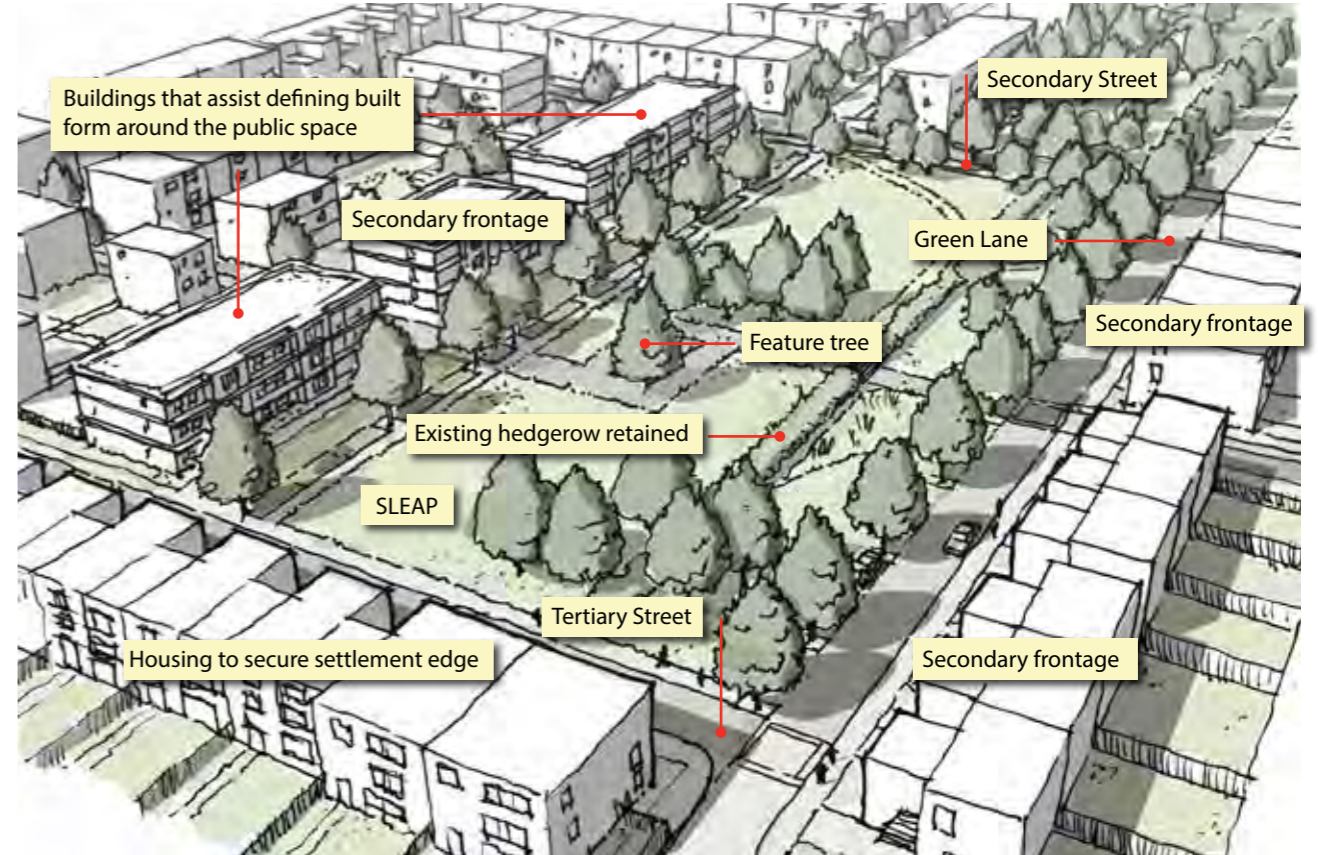


Fig. 50: Indicative sketch of Green Lane Park South

This will contain one of two 'Super LEAPS (Local Equipped Areas of Play)' proposed for the site. These are large play areas catering for children between the ages of 4-12 and will be within a 10 minute walk for the vast majority of residents.



Fig. 43: View along Spine Road



Fig. 44: View along Spine Road



Fig. 45: View from Long Road



Fig. 46: Key buildings



Fig. 47: Buildings that form Primary frontages



Fig. 51: View along Tertiary Street



Fig. 52: View along Secondary Street



Fig. 53: Key buildings around open spaces



Fig. 49: Wild flowers in grass



Fig. 54: Play area for all ages

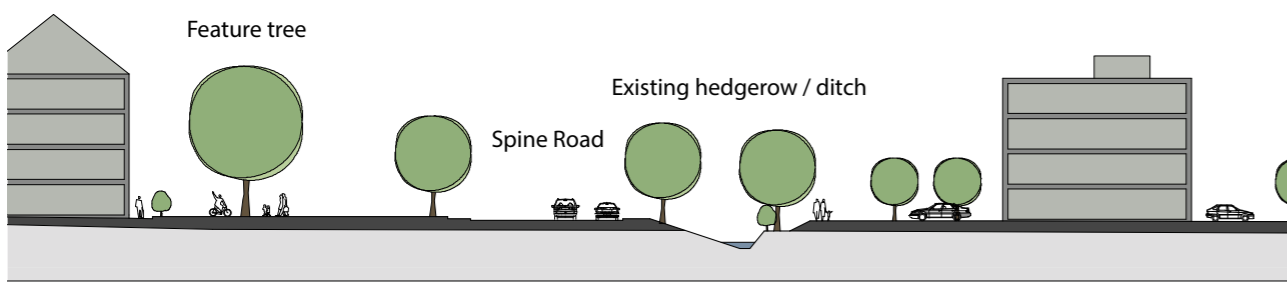


Fig. 48: Section through North Arrival Square (Refer to appendix "F" on page 156 for full sections)

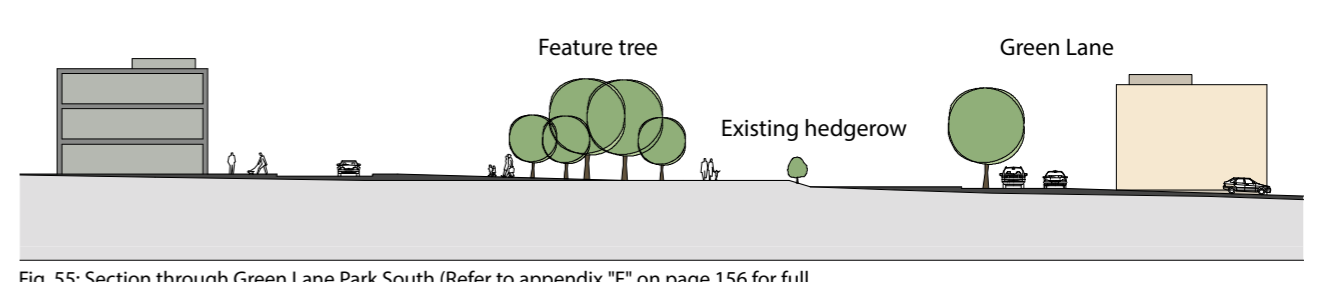


Fig. 55: Section through Green Lane Park South (Refer to appendix "F" on page 156 for full sections)

2.1 Long Road Plantation

2.1.5 Building Plots and Typologies

Guiding principles

Important in defining a sense of place and structure this section sets out the key parameters and grain used within the Long Road Plantation. This section aids in defining the principles laid out within Parameter Plan 6 found in the appendices and the perimeter blocks and layouts described within section "2.1.3" on page 62.

Component	Coding
Plot width	Centrally and adjacent to the spine road predominantly narrow frontage plots. Changing to detached and semi-detached with wider frontages along the site boundary.
Building mix	Varies between sub character areas, however achieving an overall mix of 60% houses and 40% apartments within the Long Road Plantation area.
Building rhythm	Generally a terraced structure placed as perimeter blocks. Terraces to be located in formal arrangements around the public open spaces with certain key buildings located to assist legibility through the site or to act as key identifiable buildings.
Building gaps and enclosure	Building gaps to be minimal creating a strong sense of enclosure around the public open spaces and around the private internal semi-private spaces within the perimeter blocks. This relaxes within the built form along the site boundary.
Roofline	Urban roof forms either pitched or flat. Regular terraced roofline with separated identifiable rooflines for the marker buildings.
Set backs	Small and regular to ensure strong frontages. Varied for the buildings along the development edge.

Table 10: Building plots - guiding principles

Building types and typologies



Fig. 56: Building hierarchy plan

Building type	Common	Occasional
1.5 to 3 storey detached adjacent development edge		✓
1.5 to 3 storey semi-detached adjacent development edge		✓
1.5 to 3 terraced adjacent boundary	✓	
3 storey terraced predominantly around open spaces	✓	
3 to 5 storey discrete terraced apartments adjacent to spine road	✓	

Table 11: Building types

- URBAN FORM
- Primary Frontage
 - Secondary Frontage
 - - - Housing to secure settlement edge
 - - - Built form integrating with a landscape structure
 - Buildings that assist movement and legibility through site
 - Buildings that assist movement around Public Spaces
 - ← - - → Visual Links
 - Existing Plantation



2.1.6 Streets, Public Realm and Landscape

Tree Species

The trees to be used in the Long Road Plantation character area are defined by a mandatory “tree code” that helps to reinforce the nature of the area. It will be for the applicant to show how they have met the requirements of the code.

The tree species selected for use in the Long Road Plantation character area must fulfil the following criteria:

- Tight forms and more regular crowns.
- White flowers.
- Acers (Maples) as feature trees in the courtyards and mews areas.
- Be suitable for planting in fill of up to 2m depth.

It will be the responsibility of the applicant concerned to ensure that the various criteria are met and that the trees chosen are given sufficient space to flourish in the long term.

The species choice will be taken from the table below or in areas of fill over 0.5m deep, a species choice will be taken from the list in appendix B.

The open spaces within the Long Road Plantation Character Area are largely formal in nature and help to reinforce the strong formal layout of the built form.

The spaces will have well defined boundaries, often with railings, formal planting and use a consistent palette of high quality materials. All primary routes through the open spaces will be a paved or bound material.

Grass will be close mown but areas of long grass, wildflower planting and bulbs have been allowed for.

The use of furniture and materials must be simple but legible. The furniture and materials should reinforce the character suggested by the density, building heights and street layout. Cycle parking will be allowed for adjacent to seating areas and play spaces and will conform to City Council guidance.

The North Green Link has a different character and function. It contains an existing group of trees, and is part of the existing structure of plantations and hedge/treelines within the site. The character of the Green Links is one of a rural intervention into the built fabric of the development, and offers an invaluable opportunity for enhanced biodiversity and a more naturalistic feel. Access will be limited and the emphasis will be on native tree and grass species. Grass will be maintained long, with only path edges close mown. The boundary will be defined by knee rails.

All strategic open spaces will be offered for adoption by Cambridge City Council.



Acer davidii (Snake Bark Maple), Acer ginnala (Amur Maple), Acer platanoides 'Emerald Queen' (Norway Maple)



Liquidambar styraciflua (Sweet Gum), Sorbus aria 'Majestica' (Whitebeam), Malus trilobata (Ornamental Apple), Pyrus calleryana 'Chanticleer' (Ornamental Pear)



Tilia cordata 'Greenspire' (Small Leaf Apple), Malus 'Evereste' (Ornamental Apple)

Fig. 57: Tree species examples

Species	Height (m) @ 25y	Spread (m) @ 25y	Suitable for use in :				Compact habitat	Ecological value (N - native)	Seasonal features: Fl - flowers T - twigs L - leaf colour Fr - fruit B - bark													
			Secondary street offset from frontage [m]			Tertiary street			Mews	Open Space	J	F	M	A	M	J	J	A	S	O	N	D
			3.9	4.4-5.4	6.4																	
Acer davidii Dav Id's Maple	7	6									B	B	B	B	L	L	L	L	L	L	L	B
Acer ginnala Amur Maple	7	6										L		FI	L	L	L	L	L	L	L	L
Acer platanoides 'Emerald Queen' Norway Maple	15	7			•									FI	L	L	L	L	L	L	L	L
Liquidambar styraciflua Sweet Gum	10	5			•						B	B	B		L	L	L	L	L	L	L	L
Malus 'Evereste' Crab Apple	6	3	•	•	•	•		FI, Fr						FI	L	L	L	Fr	Fr	Fr	Fr	Fr
Malus trilobata Crab Apple	6	2.5	•	•	•	•		FI						FI	L	L	L	Fr	Fr	Fr	Fr	Fr
Pyrus calleryana 'Chanticleer' Ornamental Pear Tree	8	3	•	•	•	•		FI		L	FI	FI		L	L	L	L	L	L	L	L	L
Sorbus aria 'Majestica' Whitebeam Majestic	7	5		•	•			FI					L	FI	L	L	L	Fr	L	L	L	L
Tilia cordata 'Greenspire' Small-leaved Lime	10	5		•	•			FI, N						L	L	FI	FI	L	L	L	L	L

Table 12: Tree species matrix

2.1.7 Secondary School Site

2.1.8

M The design principles for the Secondary School Site are:

- Boundaries – should make the school secure but respond to the surroundings.
- Buildings should be a minimum BREEAM very good.
- In accordance with guidance publications from CABE.
- Siting should not adversely affect the neighbouring properties in terms of sound and light.
- Scale and massing – should positively contribute to the surrounding area. The buildings' footprints should allow for future flexibility.
- The school must reflect the social and civic character of its locations. It should act as a reference point within the development. The school must provide a sense of place and way-finding.
- The landscape should provide a variety of teaching/learning opportunities.
- The approaches to the school and entrances should be welcoming and promote a sense of inclusion.
- Must meet or exceed the required provision for cycle parking and should minimise car parking provision especially for the primary school.
- Location of servicing should not impact on neighbouring properties or the highway.
- Service access should not interfere with the movement into and around the school.
- Drainage should maximise surface water drainage, retention and re-use.
- The eastern edge of the site should allow the Green Corridor to permeate into the site, so that the school is set within the landscape creating a soft edge to the Green Corridor.
- The all weather pitch and sports provision should have a clear link to the school and also to the sports pitches in the Green Corridor.
- The approach to the school entrance should relate to the local green space or the Neighbourhood Centre. It is important to agree the relationship between the strategic cycle route, the spine road and the school site.

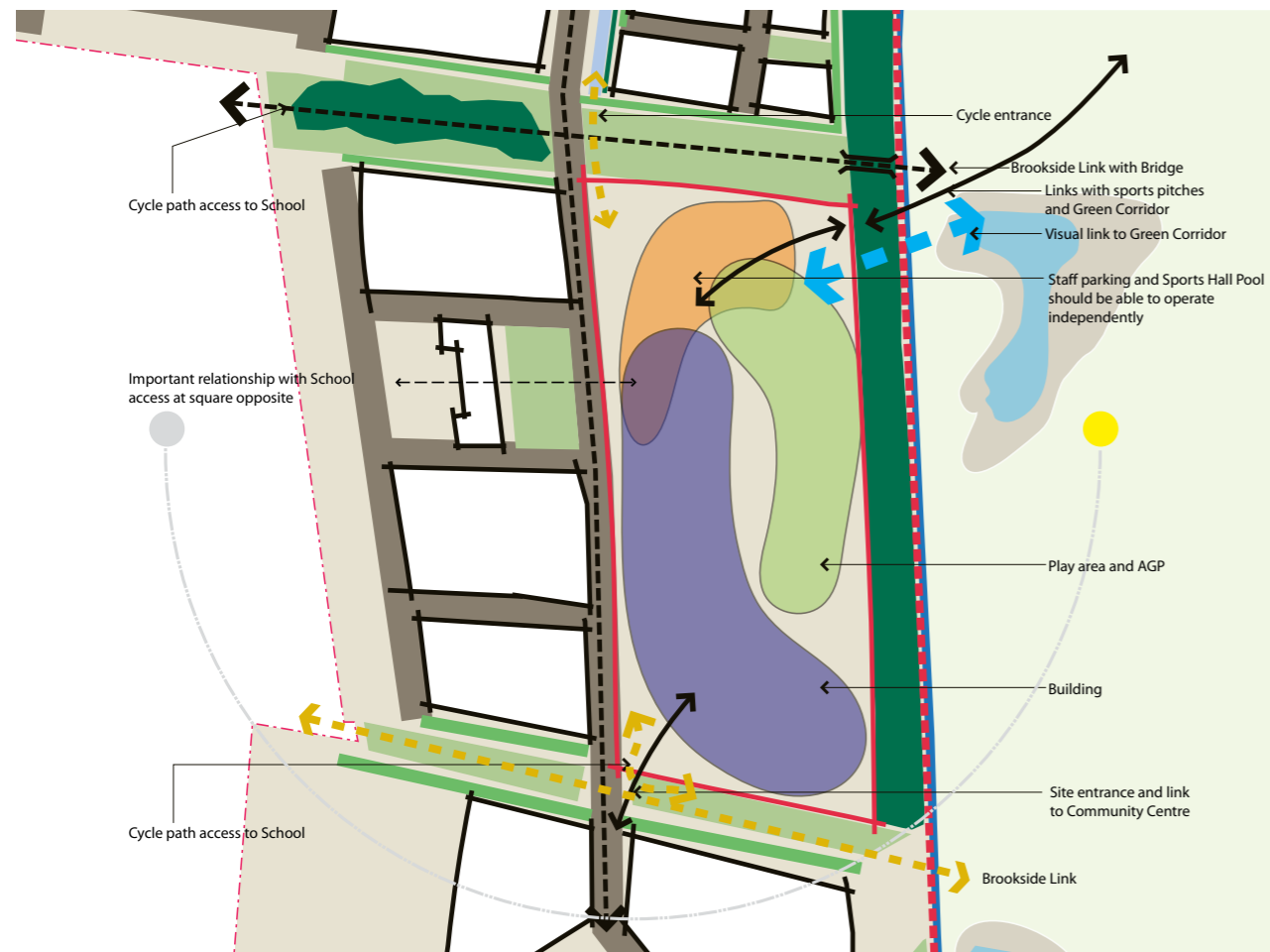


Fig. 58: Secondary School Site - design principles

Boundary Treatments

Road Type	Height	Setback to building	Type / picture no.
Primary Road	0.9m	2 - 5m	Predominantly railing with formal hedge behind on both sides of the road 4 (20%), 6 (20%), 7 (60%)
Secondary Street	0.6-0.9m	2 - 6m	Predominantly railing with informal hedge behind 1 (80%), 4 (20%)
Tertiary Street	0.6-0.9m	2 - 4m	Predominantly railing with informal and formal hedge behind 1 (80%), 4 (20%)
Green Lane	0-0.6m	2 - 3m 4 - 6m adj. tree planting	Soft verges with tree or hedge planting 2 (100%)
Mews	n/a	1 - 2m	Shrub bed with planting 3 (100%)
Parking Court	2.2m	n/a	Free standing garden wall viewed from public realm 5 (100%)
Pedestrian/ Cycle link	1.2-1.8m	n/a	Predominantly railing with informal hedge behind 1 (80%), 7 (20%)

Table 13: Boundary treatment matrix



- 1 Railing with informal mixed species native hedgerow
- 2 Soft verge with tree or hedge planting
- 3 Picket fence or shrub bed with planting
- 4 Formal well managed single species hedge
- 5 Free standing garden wall viewed from public realm
- 6 Low wall with railing
- 7 Railing with formal well managed single species hedge

2.1.9 Development Edges

This section outlines the key design principles that must be considered along the development boundaries.

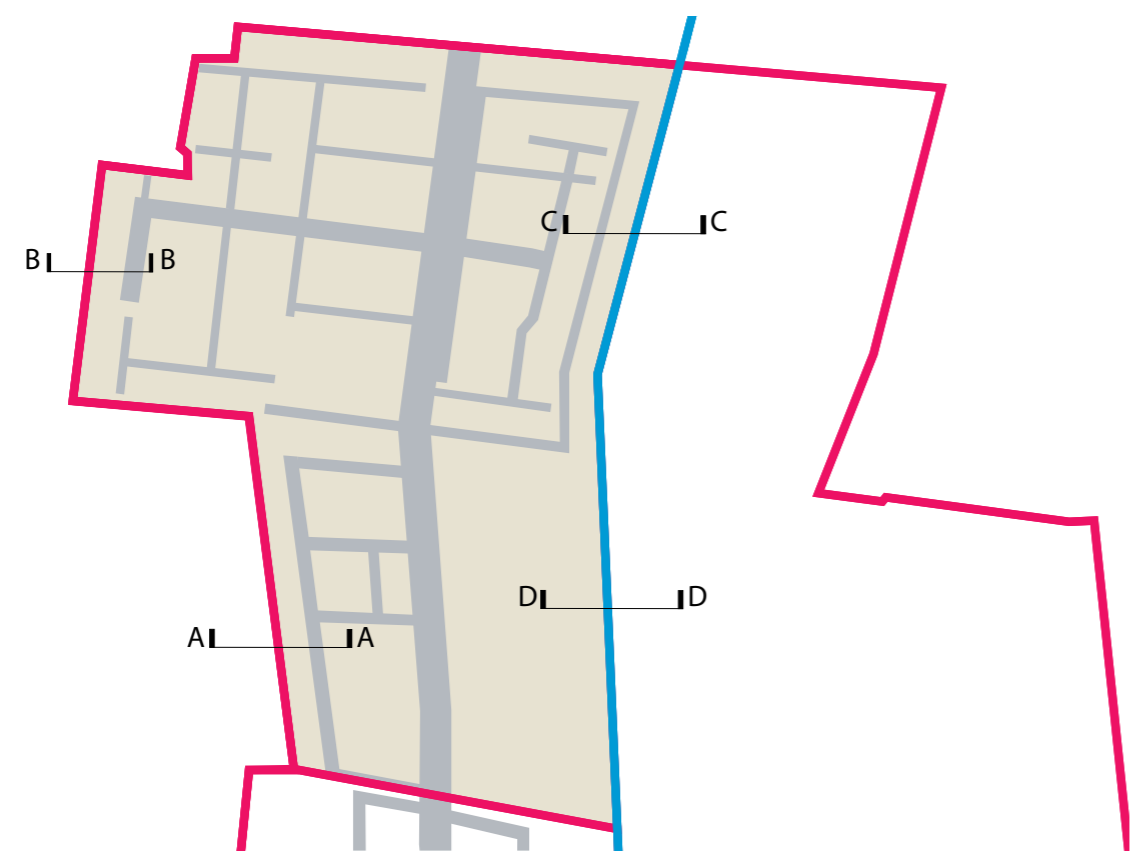


Fig. 59: Development edges location plan

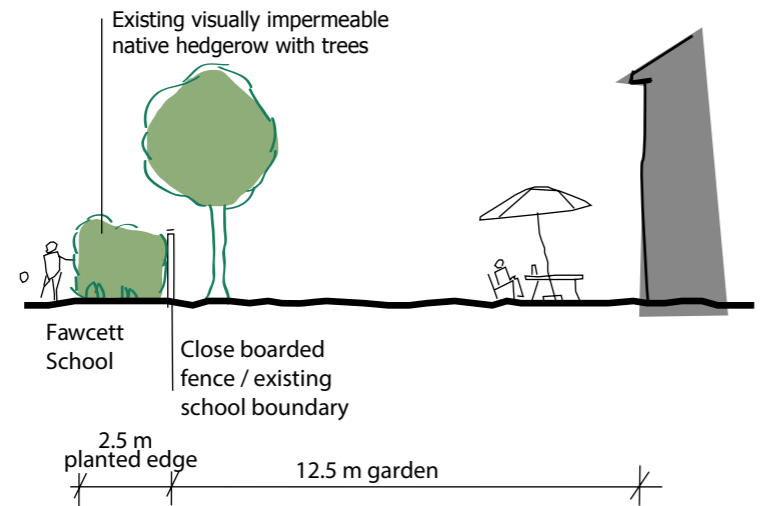


Fig. 60: Development edges - Section A - A

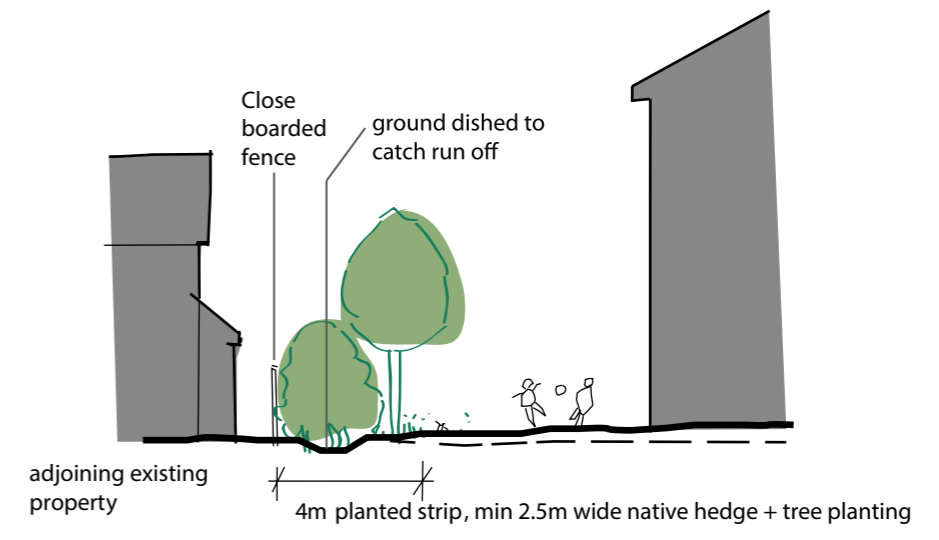


Fig. 61: Development edges - Section B - B

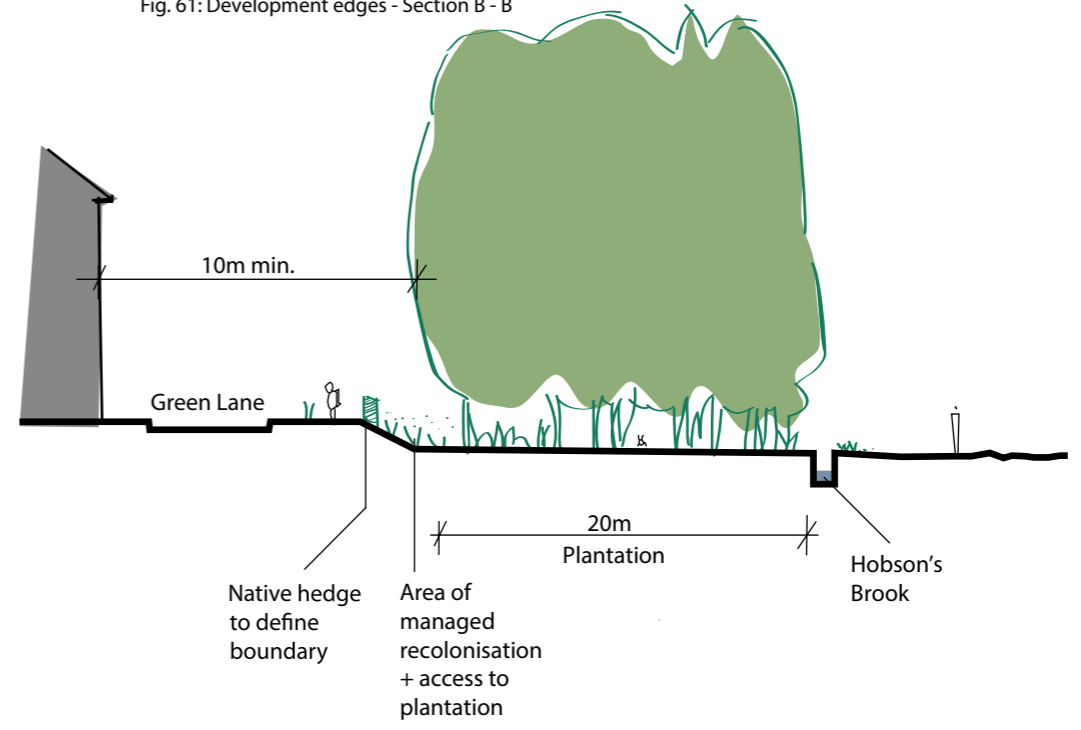


Fig. 62: Development edges - Section C - C

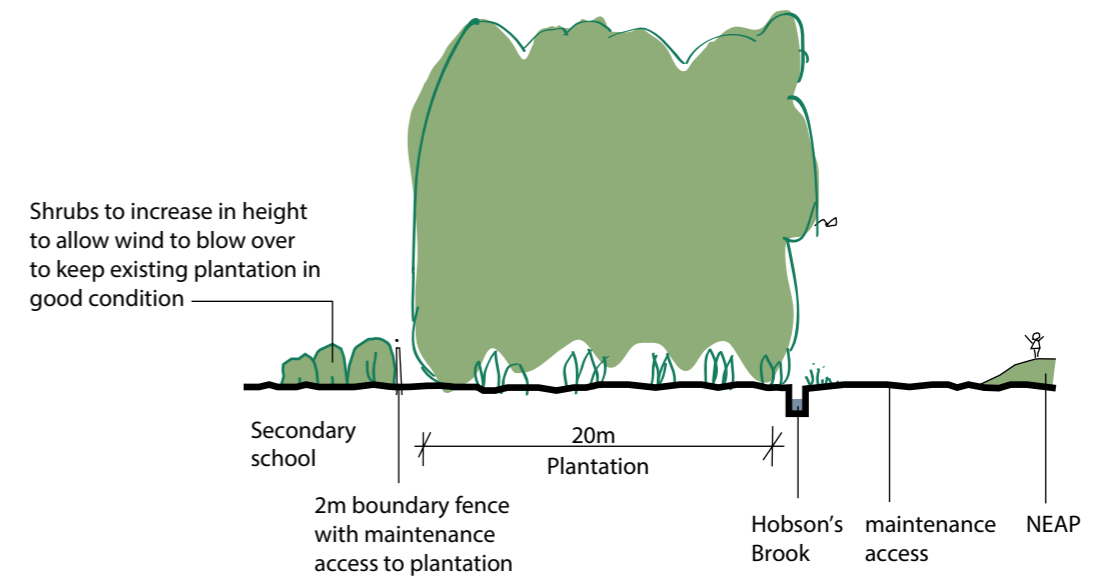


Fig. 63: Development edges - Section D - D



hobson's square

2.2.1 Guiding Design Principles

hub • community • plantations • shops • square • public transport interchange • apartments • meeting place

This diagram shows the key principles for Hobson's Square. This part of the site is the pivotal point between Royal Showground, Long Road Plantation and the Green Corridor. It will be a lively area containing community facilities, shops and homes. It is crossed by both the CGB from southwest to northeast and by the Spine Road which runs north to south.

The northern boundary comprises an important pedestrian/cycle route between Trumpington and Addenbrooke's Hospital.

In terms of vehicular traffic, only buses and emergency vehicles may travel through this Character Area. All other vehicles are terminated at this part of the site by the bus gate.

There will be a CGB stop within this area and this should be located to give convenient access to both Long Road Plantation and Royal Showground. Cyclists and pedestrians are free to move through the area.

The community building is one of the most important buildings on the site in terms of its function and physical presence. It should be accessible from both Long Road Plantation and Royal Showground and should relate to Hobson's Square, as well as the Green Corridor.

Shops and related commercial use buildings will be located at ground level with residential above.

Residential development at the western boundary of this Character Area should be sympathetic in height and scale to the existing settlement.

To the southwest of the site is proposed an area of exemplar sustainable development. This will be land developed and owned by the City Council, the exact location and area is to be agreed.

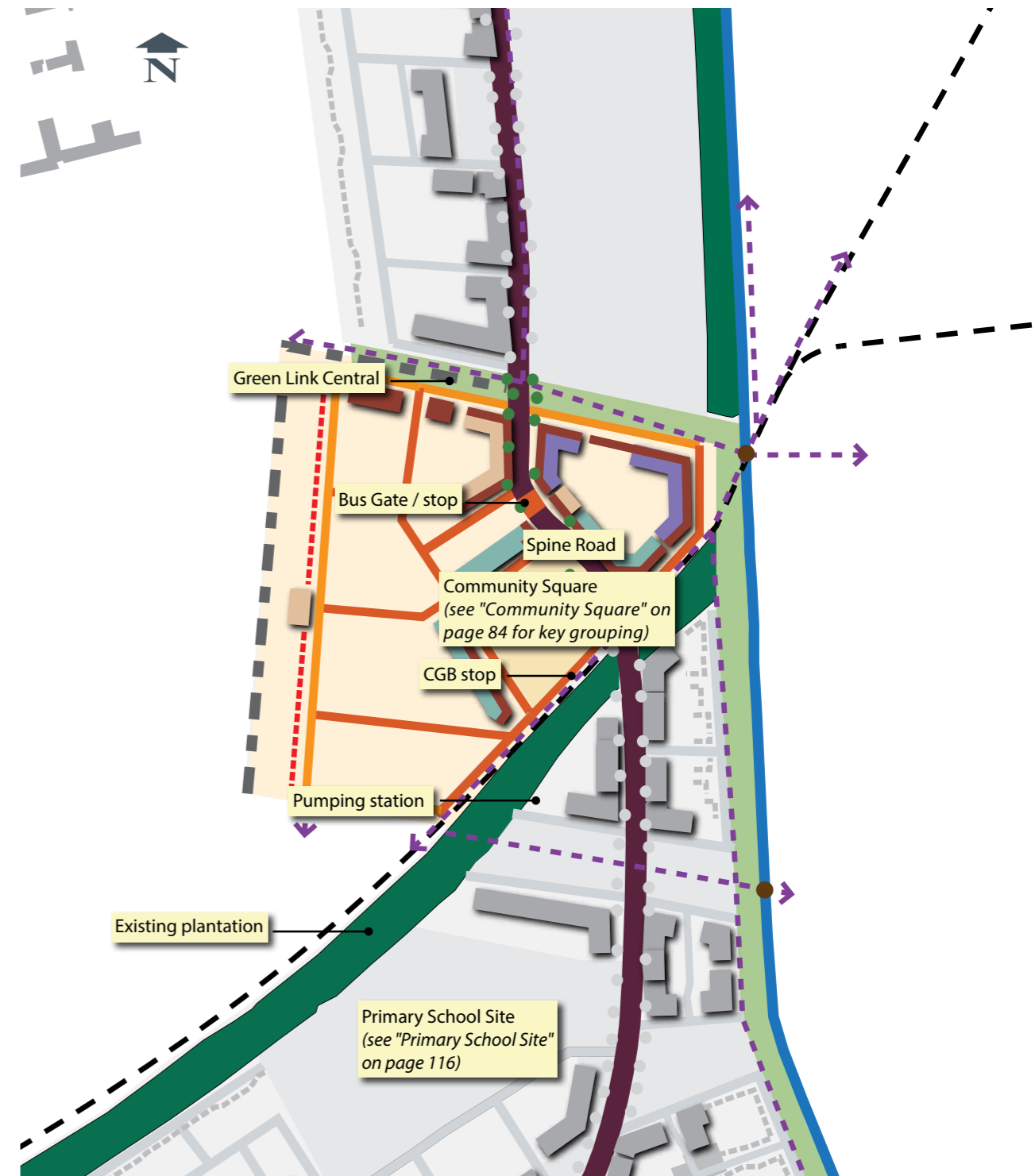
The palette of proposed plants and trees will also contribute to the character of Hobson's Square. Tree species will be selected for their ornamental barks including Cherry and Birch trees. In addition there will be a number of selected feature trees in the courtyards and mews areas.

The Community Square is bounded on the southern side by part of an existing plantation, the scale and presence of which should be a key component of the design solution for the square. The public realm materials and design should be of high quality and an emphasis of excellent amenity space.

The materials in this character area will be predominantly contemporary in nature with stronger, bolder colours than in the other two character areas. Coloured render, terracotta, cream brick, dressed stone, glass, steel and contemporary roof materials.



- PUBLIC OPEN SPACE**
 - Informal Open Space
 - Structural Planting
 - Water Courses
 - ▬ Existing Plantation/Hedgerow
- STREETS**
 - Primary Road
 - Tertiary Street
 - Green Lane
 - Square
- URBAN FORM**
 - Primary Frontage
 - Buildings visible from outside the site creating landmarks that assist legibility
 - Buildings that assist movement and legibility through site
 - Buildings that assist in defining built form around Public Spaces
 - Built form integrating with a landscape structure
 - - - Proposed Housing to secure existing settlement edge
 - - - Existing footpath/Cycleway
 - Cycle paths and footways
 - - - CGB with cyclepath
 - Visual links
 - Bridge Link



M Fig. 64: Urban Form Diagram
The principles of the street hierarchy are mandatory, not the exact alignment.

2.2 Hobson's Square

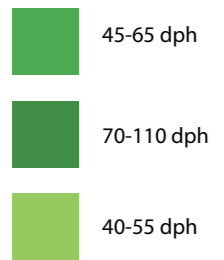
2.2.2 Key Parameters

M Densities



Fig. 65: Density plan

Hobson's Square is within the density bands of 40 to 55 dph and 70 to 110 dwellings per hectare, being the highest on the site.

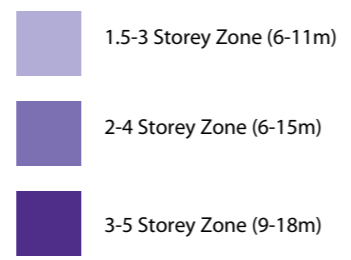


- Densities should decrease:
- towards existing settlement edges
 - towards Hobson's Brook edge
- Densities should increase:
- adjacent to the spine road
 - around the central community square
 - facing the community gardens to the south

M Building Heights



Fig. 66: Building Heights plan



Building heights should align with the following:

1.5 to 3 storeys	6 – 11m*
2 to 4 storeys	6 – 15m*
3 to 5 storeys	9 – 18m*

Table 14: Building heights matrix

The guiding principles are that buildings should decrease in height towards the existing settlement boundaries to the west and Hobson's Brook to the east. They should increase in height towards the spine road and public open spaces.

Landmark buildings should increase in height above adjacent buildings. Rooflines in general should vary in profile.

*approximate height of building block inclusive of assumed roof pitch or parapet, whichever is higher

2.2 Hobson's Square



2.2.3 Sub Character Area

Mid Brook

hub • square • shops • community • outdoor seating • dense • tall • contemporary • meeting place

This area is bounded to the north by the Green Link Central, the CGB and Green Corridor to the east and the existing plantations and proposed apartments to the south and west. This will be the retail and commercial hub located south of the busy pedestrian/cycle route between Trumpington and Addenbrooke's Hospital, providing community facilities and dense development.

It is also the focus for public transport links with an interchange for the CGB and local buses. It should be noted that motorised vehicular traffic other than buses will not be able to pass through the bus gate on the spine road at the centre of this area.

The buildings should be more prominent here than other character areas within the site creating mainly apartment accommodation and high density terraced housing in order to meet the density requirements. The height, scale and massing of these central buildings should give enclosure and presence to the proposed Mid Brook.

Glimpses of this area would be seen from the Green Corridor where the CGB cuts through the existing plantations. A landmark building would signpost this corner and command the space where the CGB, strategic cycle route, footway and enhanced bridge link across Hobson's Brook all meet.

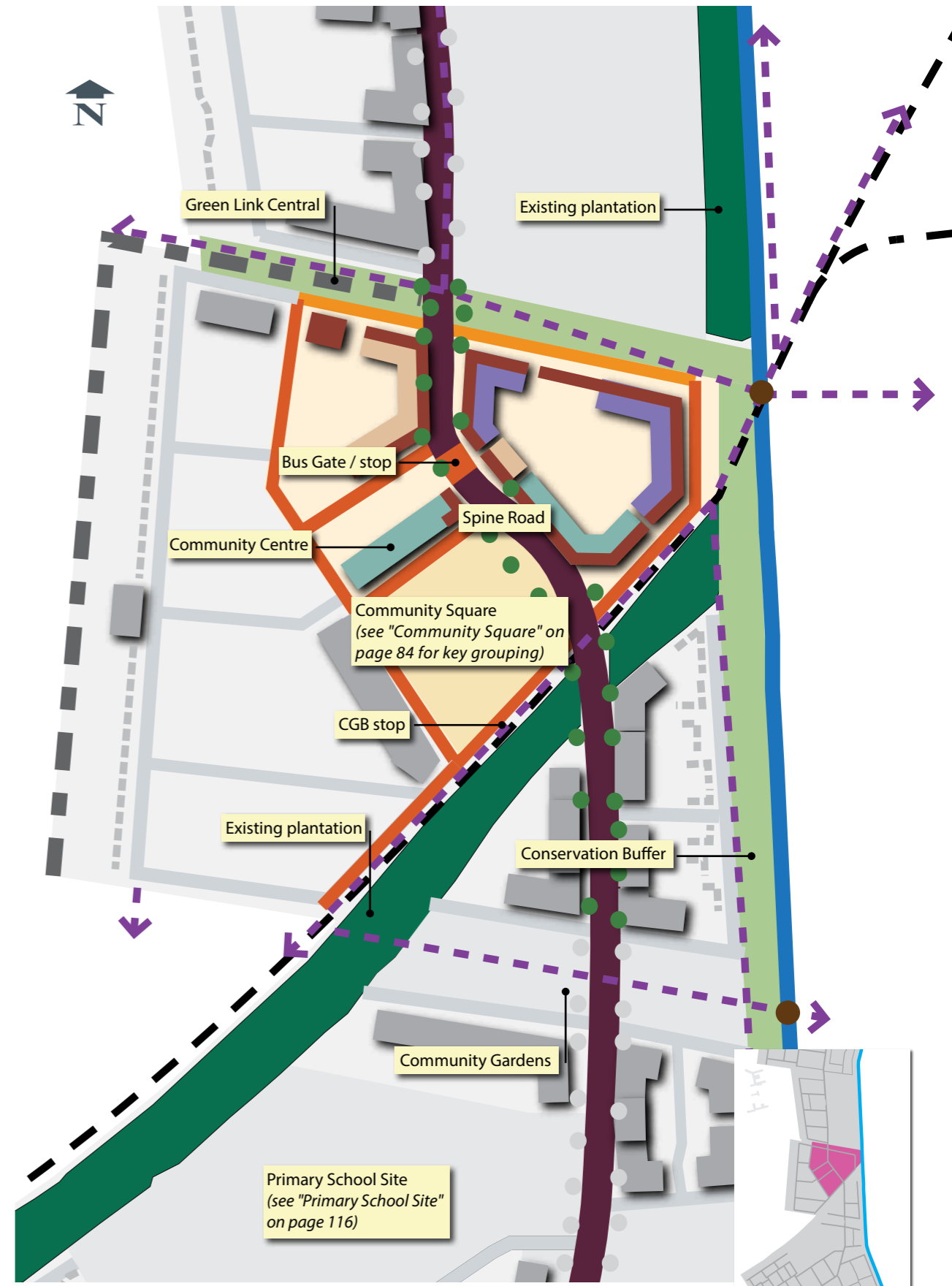
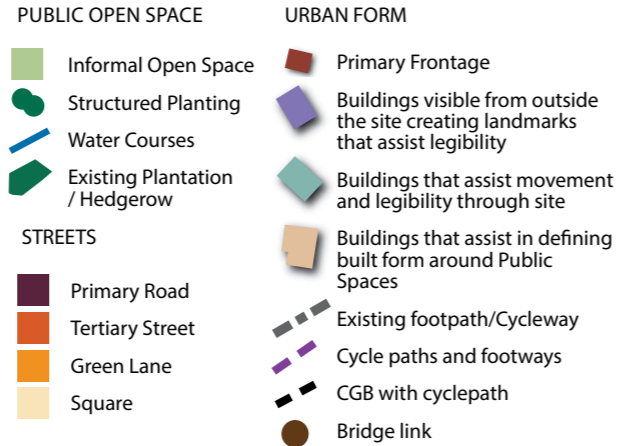


Fig. 67: Extract from Urban Form Diagram - Mid Brook
The principles of the street hierarchy are mandatory, not the exact alignment.

Trumpington Edge

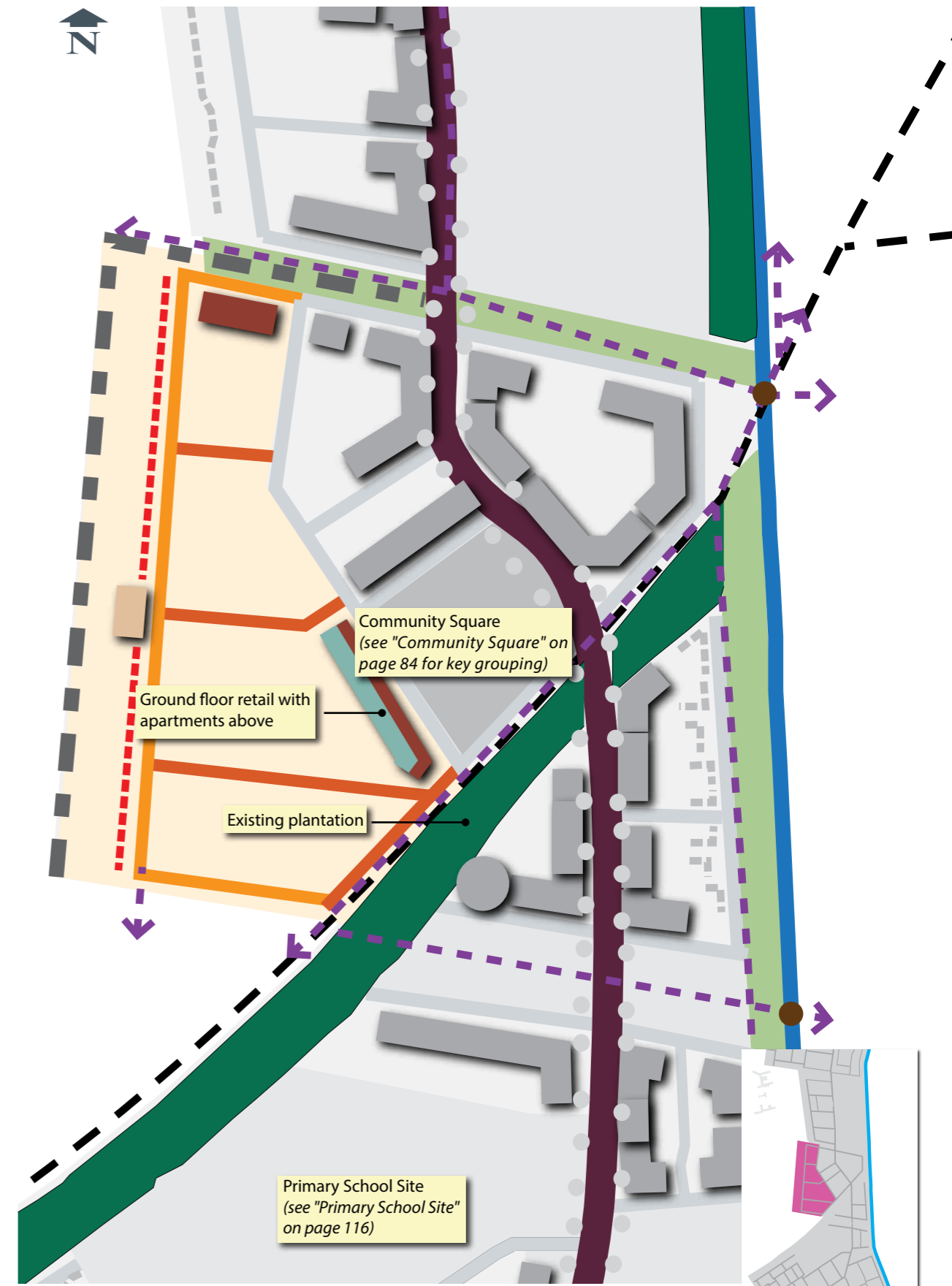
hub • square • landmark buildings • variety of scale • contemporary • settlement edge

Predominantly apartment accommodation reducing in scale and massing along the western boundary with the existing settlement of Trumpington.

The built form to the southeast creates an important part of the enclosure to the Community Square.

In conjunction with the buildings on the other two sides they should be rich in architectural detail and be notable for their style and composition in order to generate buildings that assist movement and legibility through the site.

- | | | | |
|--------------------------|--------------------------------|-------------------|---|
| PUBLIC OPEN SPACE | | URBAN FORM | |
| | Informal Open Space | | Primary Frontage |
| | Structured Planting | | Buildings visible from outside the site creating landmarks that assist legibility |
| | Water Courses | | Buildings that assist movement and legibility through site |
| | Existing Plantation / Hedgerow | | Buildings that assist in defining built form around Public Spaces |
| STREETS | | | Existing footpath/Cycleway |
| | Primary Road | | Cycle paths and footways |
| | Tertiary Street | | CGB with cyclepath |
| | Green Lane | | Proposed Housing to secure existing settlement edge |
| | Square | | Bridge link |



M Fig. 68: Extract from Urban Form Diagram - Trumpington Edge
The principles of the street hierarchy are mandatory, not the exact alignment.

Community Square

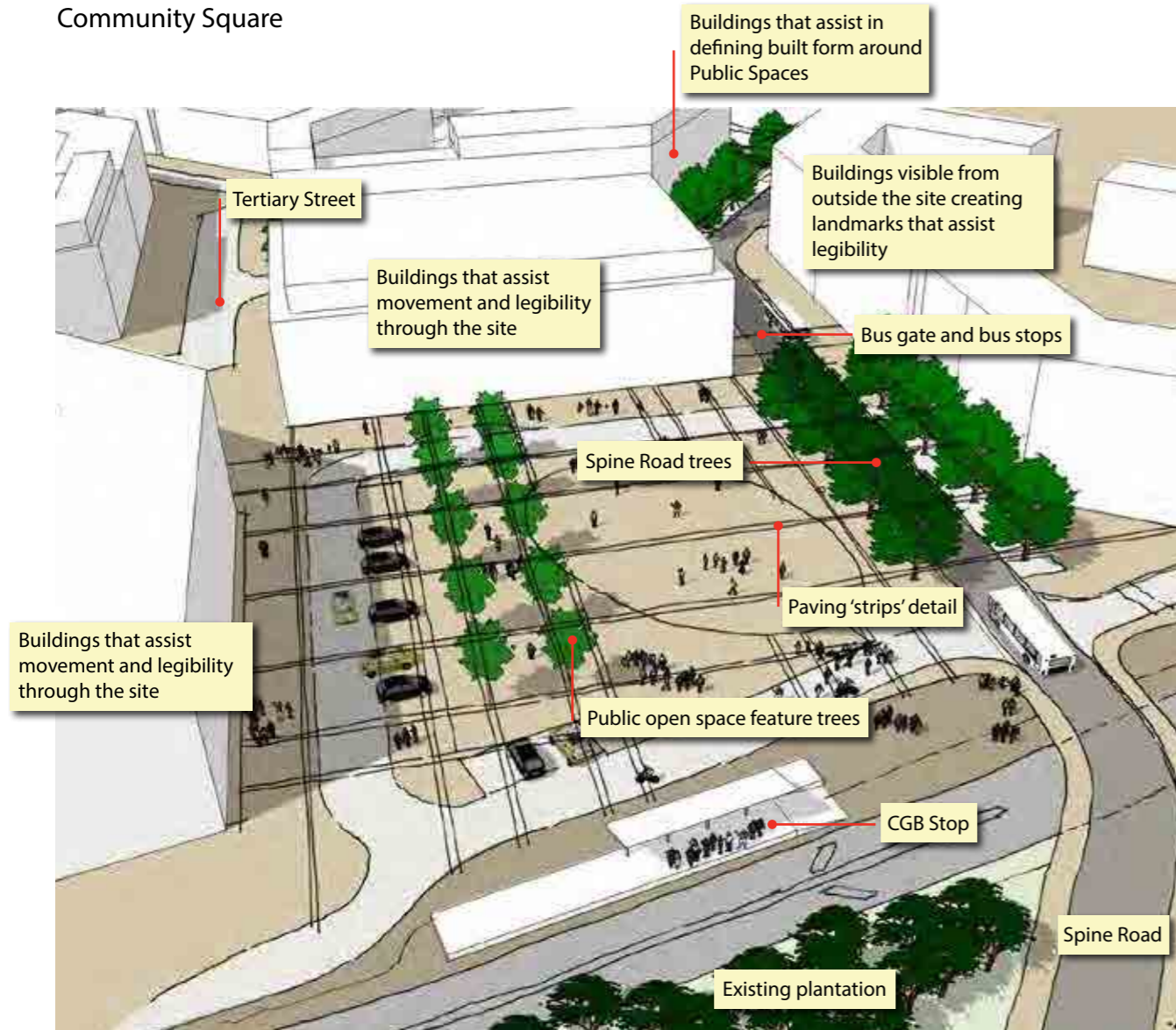


Fig. 69: Indicative sketch of Mid Brook

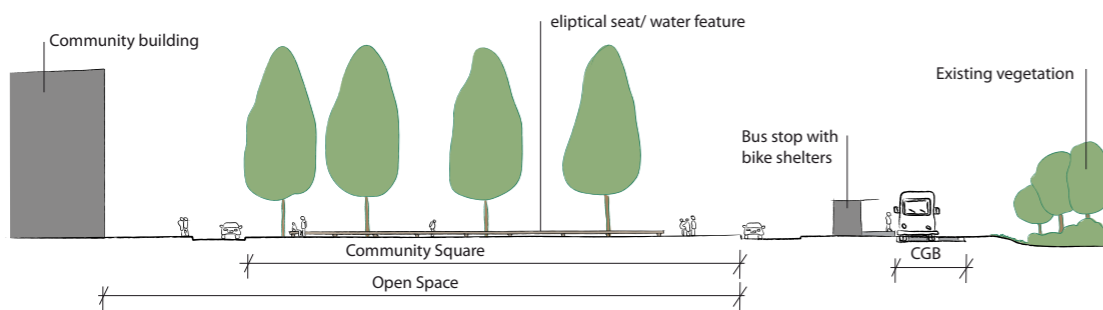


Fig. 70: Section A - A



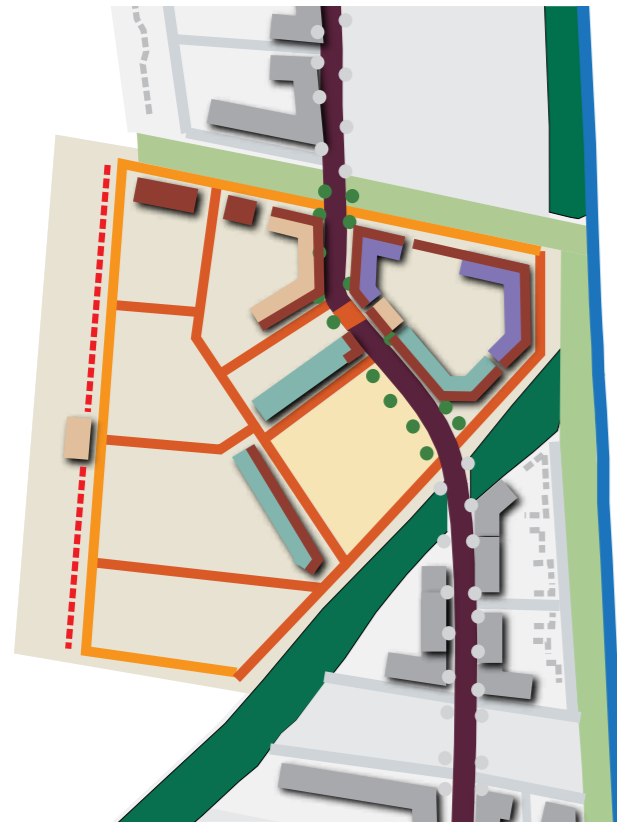
Guiding principles

Important in defining a sense of place and structure this section sets out the key parameters and grain used within Hobson's Square. This section further defines the principles laid out within Parameter Plan 6, found in the appendices and the perimeter blocks and layouts described within section 2.2.3.

Component	Coding
Plot width	Within Trumpington Edge and Mid Brook, the plots will be predominantly apartments with community/commercial retail units at ground floor around the square. Along the boundary to the west plots will follow a terrace form. Plot widths within Park Side will vary and will increase along the Hobson's Brook edge.
Building mix	Mainly apartments with houses along the western boundary and within Park Side.
Building rhythm	Around the Community Square, units will consist of perimeter blocks, terraced along the western edge.
Building gaps and enclosure	Gaps to be minimal around key public open spaces in order to create a strong sense of enclosure. Central courtyards containing landscaped podium parking.
Roofline	Urban roof forms either pitched or flat. Consistent and regular rooflines along terraces or formal enclosures. Varied rooflines towards site boundaries. Roofline should be no more than 2.5 storeys at boundaries rising towards Community Square and Spine Road.
Set backs	Small or no set backs along formal areas, spine road and public open spaces.

Fig. 71: Building plots - guiding principles

Building types and typologies



Building type	Common	Occasional
2 to 2.5 storey detached adjacent development edge		✓
2 to 2.5 storey semi-detached adjacent development edge		✓
3 to 5 storey apartments primarily along spine road and around Community Square	✓	

Table 15: Building types

URBAN FORM


-  Primary Frontage
-  Buildings visible from outside the site creating landmarks that assist legibility
-  Buildings that assist movement and legibility through site
-  Building that assist in defining built form around Public Spaces
-  Built form integrating with a landscape structure
-  Proposed Housing to secure existing settlement edge

Fig. 72: Building hierarchy plan



2.2.6 Streets, Public Realm and Landscape

Tree Species

The trees to be used in the Hobson's Square Character Area are defined by a mandatory "tree code" that helps to reinforce the nature of the area. It will be for the applicant to show how they have met the requirements of the code.

M

Character Area trees must fulfil the following criteria:

- Cherry and birch trees to reflect the greater number of tertiary streets.
- Ornamental barks.
- Large scale trees in the Community Square.
- Parrotia (Persian Ironwood) as feature trees in the courtyards and mews areas.
- Be suitable for planting in fill of up to 2m depth.

It will be the responsibility of the applicant concerned to ensure that the various criteria are met and that the trees chosen are given sufficient space to flourish in the long term. The tree pits must be free draining.

The species choice will be taken from the table below or in areas of fill over 0.5m deep a species choice will be taken from the list in appendix B.

There are two strategic open spaces within The Hobson's Square Character Area, the Mid Brook and Green Links Central. They have very different characters. One is hard and formal in nature and helps to reinforce the formal layout of the built form, whilst the other is more open and rural in character.

The spaces will have well defined boundaries, some formal planting and use a consistent palette of high quality materials. All primary routes through the open spaces will be a paved or bound material. Secondary routes will be a firmly compacted material.

Grass will generally be close mown but areas of long grass, wildflower planting and bulbs are proposed in the less formal space.

The use of furniture and materials will be simple but legible. The furniture and materials shown should reinforce the character suggested by the density, building heights and street layout. Cycle parking will be allowed for adjacent to seating areas and will conform to City Council guidance.

The Central Green Link has a different character and function. It contains an existing very busy Right of Way (Footpath 47). The character of the Green Links is one of a rural intervention into the built fabric of the development, and offers an invaluable opportunity for enhanced biodiversity and a more naturalistic feel. Access will be confined to the pathway and the emphasis will be on native tree and grass species. Grass will be maintained long, with only path edges close mown. The boundary will be defined by knee rails.

All strategic open spaces will be offered for adoption by Cambridge City Council.



Parrotia persica (Persian Ironwood)

Prunus subhirtella 'Autumnalis Rosea' (Autumn Flowering Cherry)



Prunus serrula (Ornamental Cherry)

Prunus species - autumn colour (Ornamental Cherry)



Betula albosinensis 'Fascination' (Chinese Redbark Birch)

Fig. 73: Tree species examples

Species	Height (m) @ 25y	Spread (m) @ 25y	Suitable for use in :				Compact habitat	Ecological value	Seasonal features: Fl - flowers T - twigs L - leaf colour Fr - fruit B - bark														
			Secondary street offset from frontage (m)			Tertiary street			Mews / Square	Open Space	J	F	M	A	M	J	J	A	S	O	N	D	
			3.9	4.4-5.4	6.4																		
Betula albosinensis 'Fascination' Birch	8	4	NA	NA	NA	•	•	•	•	Fl	B	B	B	BL	BL	B	B	BL	BL	BL	B	B	
Parrotia persica Persian Ironwood	6	4	NA	NA	NA		•	•	•	Fl	Fl	Fl	Fl	L	L	L	L	L	L	L	L	L	B
Prunus serrula Cherry	6	4	NA	NA	NA	•	•	•	•	Fl, Fr	B	B	B	B	B	B	B	B	B	B	B	B	B
Prunus 'Sunset Boulevard' Cherry	10	3	NA	NA	NA	•	•	•	•	Fl				Fl	Fl	Fl	L	L	L	L	L	L	
Prunus subhirtella 'Autumnalis Rosea' Cherry	5	4	NA	NA	NA	•	•	•	•	Fl	Fl	Fl	Fl	L	L	L	L	L	L	L	L	Fl	Fl

Table 16: Tree species matrix

2.2.7 Boundary Treatments

M

Road Type	Height	Setback to building	Type / picture no.
Primary Road	0.9m	2 - 5m	Predominantly railing with formal hedge behind on both sides of the road 4 (10%), 6 (20%), 7 (70%)
Tertiary Street	0.6-0.9m	2 - 4m	Predominantly railing with informal hedge behind 1 (80%)
Green Lane	0-0.6m	2 - 3m	Soft verges with tree or hedge planting 2 (100%)
		4 - 6m adj. tree planting	
Mews	n/a	1 - 2m	Shrub bed with planting 3 (100%)
Parking Court	2.2m	n/a	Free standing garden wall viewed from public realm 5 (100%)
Pedestrian/ Cycle link	1.2-1.8m	n/a	Predominantly railing with informal hedge behind 1 (70%)

Table 17: Boundary treatment matrix



- 1 Railing with informal mixed species native hedgerow
- 2 Soft verge with tree or hedge planting
- 3 Shrub bed with planting
- 4 Formal well managed single species hedge
- 5 Freestanding garden wall viewed from public realm
- 6 Low wall with railing
- 7 Railing with formal well managed single species hedge



2.2.8 Development Edges

This section outlines the key design principles that must be considered along the development boundaries.

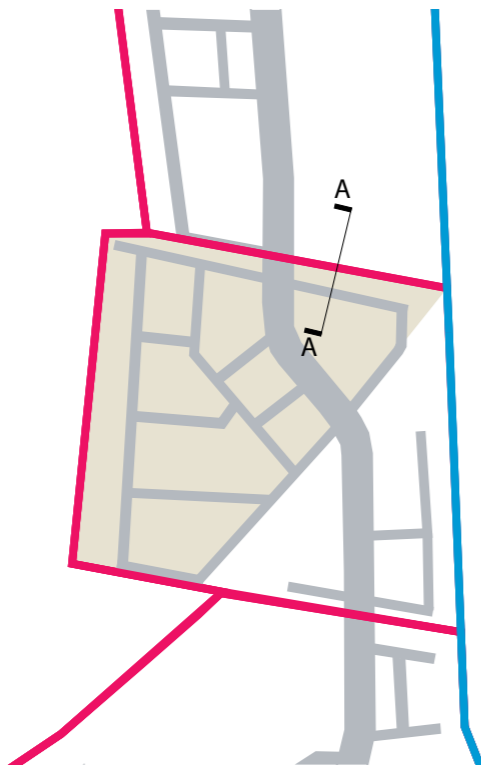


Fig. 74: Development edges location plan

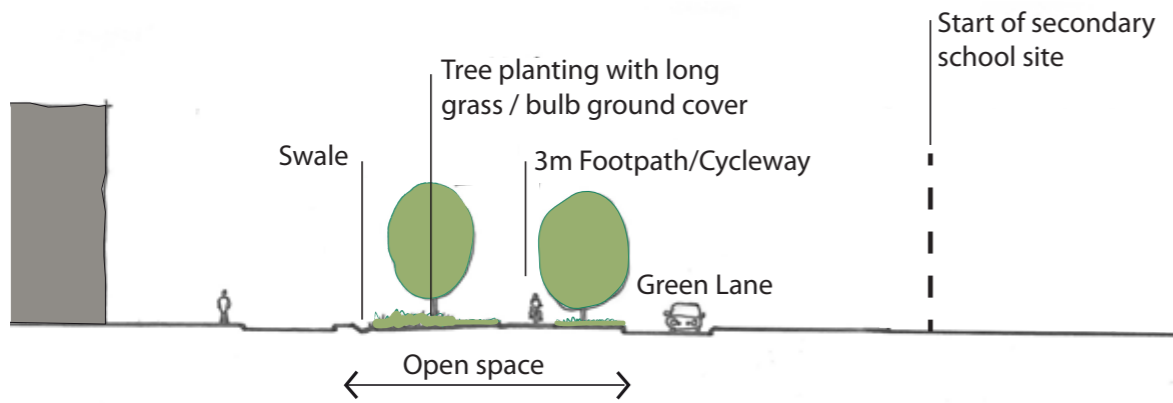


Fig. 75: Development edges - Section A - A



