

Chapter 1.

The Design Code

1.1 Introduction

Condition 15 - Design Code and Regulatory Plan

The Design Code has been produced pursuant to planning Condition 15 which requires the Village Masterplan to be supported by a Village Design Code and associated Regulatory Plan. Building on the framework set out at OPA and the Village Masterplan (Chapters 1 to 8 of this document), the Design Code provides a set of robust and concise design principles which form the basis for the assessment of subsequent Reserved Matters applications to ensure high quality design outcomes.

The Village 7 Design Code articulates how the village contributes to the realisation of the vision for the Gilston Area as a whole and builds on the work carried out in the Concept Framework and the Strategic Design Guide (SDG).

The Regulatory Plan, page 218-219, shows the various high level elements of the masterplan that are detailed within the following sections of the Design Code and must be adhered to.

The Regulatory Plan is the starting point for all RMA work for Village 7. This plan defines key features and fixes for the village masterplan area and provides an overview of where controlling requirements are located and overlap.

The Regulatory Plan covers:

- **Existing site constraints and key features** - including existing woodland/ vegetation, watercourses and Sensitive Development Areas (SDAs).
- **Landscape & Green Infrastructure** - Identifying public open space provision and landscape features as identified in the Regulatory Green Infrastructure and Open Space Plan.
- **Sustainable Movement** - Defining vehicular, pedestrian, cycle and public transport routes including the Sustainable Transport Corridor (STC) and the STC / Community Hub. Additionally, the access points for Village 7.
- **Placemaking and Homes** - Establishing development character areas across the Site.
- **Regeneration and Economy** - Identifying key community facilities.

These principles align with the OPA parameter plans and Development Specification Statement (DSS), as well as planning policy and guidance documents listed on page 18 (part 1).

1.2 The Design Code and Regulatory Plan

Structure of the Design Code

Following a similar structure to Chapter 7 - The Masterplan Framework, the above components are organised into four core themes as identified in the HGGT Design Guide and the GA SDG.

The National Model Design Code (NMDC) was also a material consideration in the Council's grant of OPP for Village 7, therefore, due regard will also be taken of the NMDC in preparing this Design Code.

Furthermore, the Charter requires that each Design Code be tested to determine whether it is fit for purpose before it is finalised and submitted. Design Code testing has provided useful information underpinning the development of this Design Code and has been added to the appendix.

How to read the Design Code

Mandatory design requirements will be set out within the chapter to provide the essential key components and preconditions to achieve the vision for the Site. These have been clearly marked with 'must' statements, highlighted in bold and underlined.

A second tier of guidance has been clearly marked with 'should' statements, also highlighted in bold and underlined. This advisory guidance provides clarity of intent while allowing flexibility for innovative solutions at the reserved matters stage over the extensive delivery period of Village 7.

In addition to the use of clear and concise language, and to visually simplify requirements, **key design principles have been highlighted with a tick as illustrated below.**

Design principles:

- Mandatory clearly marked with 'must' statements

Similarly, **best practice requirements have been highlighted with a plus symbol as illustrated below.** These should be incorporated into the design of the scheme where possible.

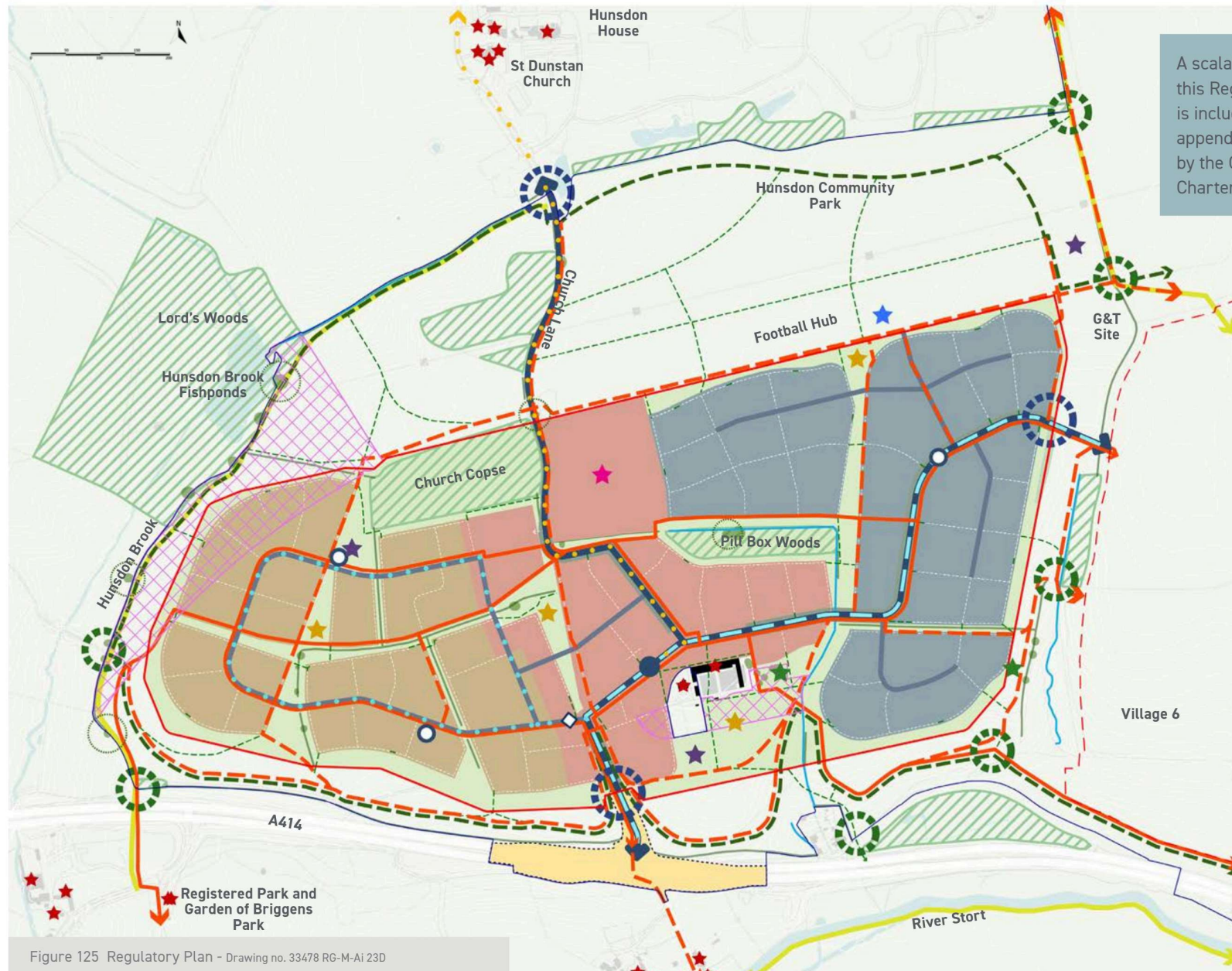
Best practice:

- Advisory instruction clearly marked with 'should' statements

Overlapping Features with the SLMP

Whilst the Village 7 Regulatory Plans focus exclusively on the Village 7 developable areas, a number of strategic features, including SuDS and movement routes, necessarily overlap between the SLMP extent and the Village 7 developable areas.

As with all boundaries between the SLMP and V7, it is essential that future RMA proposals are informed by all relevant masterplans within and immediately adjoining their project area.



	V7 MP Site Boundary		Improved Vehicular Primary Means of Access Point from A414		Indicative location of Sports Pavillion
	SLMP Boundary		Primary Street		Listed Buildings
	V6 MP Site Boundary		Secondary Street		Provision for Children and Young People (NEAP & LEAPs)
	Existing Woodlands		Illustrative Tertiary or Shared Surface Street		Allotments
	Natural and Semi-Natural Green Space		Sustainable Transport Corridor (STC) Route		Community Orchard
	Existing Hedgerow, Trees to be retained		Supplementary STC Bus Route		Primary School
	Existing Veteran Tree/Buffer to be retained		Other Bus Route		
	Existing Ordinary Watercourse		STC Hub		
	Sensitive Development Area (fixed OPA constraint)		Bus Stop (Local Hub)		
	Village Heart Character Area		Bus Gate		
	Woodland View Character Area		All-modes of Transport Access Points		
	Eastern Gateway Character Area		Active Travel Access Points		
			Pedestrian Leisure Route*		
			Pedestrian & Cyclist Commuter Route*		
			Pedestrian & Cyclist Leisure Route*		
			Heritage Trail (as shown in SLMP)		
			Existing Public Rights of Way		

*Delivery of route typology for strategic connectivity is mandatory. Alignment of route is shown indicatively.

1.3 Village 7 Illustrative Masterplan

The Village 7 Illustrative Masterplan opposite illustrates one way in which the development could be masterplanned according to the OPA, Masterplan Framework and Regulatory Plan set out. The design aligns with the overarching vision and design principles set out in the Strategic Design Guide and the Concept Framework to create a vibrant, yet distinctive neighbourhood which forms part of the wider Gilston Area.

The Illustrative Masterplan provides a loose framework for design, it should not unnecessarily limit or constrain the design process at the RM application stage.

- 1 Southern Gateway
- 2 Eastern Gateway
- 3 Northern Gateway
- 4 Cycle or Pedestrian Access Point
- 5 Brickhouse Square
- 6 Primary School
- 7 Employment
- 8 STC Hub
- 9 Indicative location of Sports Pavilion
- 10 Football Hub
- 11 Play (NEAP or LEAP)
- 12 Allotment
- 13 Community Orchards
- 14 Community Heat Hub
- 15 Gypsy and Traveller Site
- 16 Brickhouse Farm
- 17 Existing Listed Barn
- 18 Community Hub
- 19 Early Years Facility



Precedent image of Beaulieu Park



Vibrant public realm with active frontages on the ground floor



Mature, high quality landscape



High quality development overlooking open space



Figure 126 Village 7 Illustrative Masterplan Plan

1.4 Alignment to the SLMP

The landscape of the Gilston Area is the key unifying feature which brings together and provides a structure for the development of the seven new Villages to be built over the next 20 years.

This Strategic Landscape Masterplan (SLMP) sets out the vision for how the existing landscape will be protected, enhanced and transformed to establish a landscape framework ready to accommodate the new level of use and activities, manage and enhance the natural environment, and provide opportunities for leisure and recreation, access and enjoyment of the countryside for existing and future residents.

The study has been undertaken as a process with extensive consultation with the local community, local authorities, and statutory consultees and prepared within the context of local planning policies and the Hunsdon, Eastwick and Gilston Neighbourhood Plan Group (HEGNPG) Gilston Area Neighbourhood Plan. The process has included undertaking detailed mapping of existing landscape features and review of current land management practices, revealing opportunities to transform the landscape into a richly biodiverse landscape providing

space for people, nature, water management, celebration of heritage, sports, play and community involvement.

The Village 7 Masterplan has been developed alongside and in alignment with the wider SLMP. The strategic landscape for V7 Masterplan reflects and ties in with the wider SLMP to provide a seamless blend into the Village, in particular through The Edges, planting palette, active travel route typology and tie in with wider area, hard surface material strategy and the wayfinding strategy that will follow key routes, play areas, public art strategy as well as boundary treatments.

Tree species and other plant species have been suggested based on the design requirements and aesthetics of the space but also in relation with the tree works palette and softworks palette as identified in the SLMP. This will ensure that Village 7 aligns with the overarching planting strategy of the Gilston Area.



Active travel route passing in front of a school facility



High quality three storey development



Precedent image of Wichelstowe Canalside



High quality, landscape led development



Illustrative bird's eye view of how the Village 7 masterplan proposal may come forward



1.5 Landscape and Green Infrastructure



Public path through Cherry Tree Park, Shavington

Landscape Character Zones

While all 15 Natural England Green Infrastructure (NE GI) Principles have been carefully considered and woven into the fabric of the overarching landscape framework, four in particular emerge as the most distinctive and influential. These key principles strongly shape the identity and character of the individual zones, ensuring that the overall landscape framework remains responsive to both environmental and community needs.

Key Spaces and Destinations

The Village Centre includes Brickhouse Square, forming a key node, and the neighbourhood park - Brickhouse Park to the south. The park will provide the central destination space for the village and will be closely connected to the wider green open space within the SLMP.

NE GI: Principle 6 - Multifunctional

Both Brickhouse Square and Brickhouse Park embody multifunctionality by providing opportunities for recreation, social interaction, and biodiversity enhancement within a single, well connected framework, ensuring inclusive access while delivering ecological, health, and community benefits.

Green Corridors

The network of green routes - Lord's Green, Church Lane Green, Brook Green and The Walks - protect existing green infrastructure and form a movement and ecological framework for the development.

NE GI: Principle 1- Nature rich, beautiful places

The Green Corridors help balance habitat connectivity with everyday use, serving both environmental and community needs. Adaptive management ensures they continue to support the wider landscape over time.

The Edges

The semi-natural open space around the edge of development will provide an important link to the wider SLMP area. It has been defined in four distinct areas relating to the four edges to the north, south, east and west

NE GI: Principle 9 - Accessible

By improving physical and visual connections between Village 7 and its surrounding areas, the edges encourage exploration while supporting safe, inclusive movement and community use.

Streets

The street network will include extensive soft landscape through new street tree planting and soft verges for attenuation.

NE GI: Principle 8 - Connected

Street trees and soft verges enhance green infrastructure by creating habitats that support biodiversity, improve ecological networks, and make streets more inviting, accessible, and resilient.



Details of **Character Areas** on page 356

Details of **Key Frontages** on page 362



Figure 127 Landscape Character Zones Plan

Village Centre

Brickhouse Square



Brickhouse Square is the key civic space in the heart of Village 7. Brickhouse Square will include large areas of flexible space to encourage events, gathering and any other social activities, through the seasons.

Brickhouse Square will be multi-functional, acting as a key route through but also as a main destination point creating a threshold area for Brickhouse Barns to the south.

The STC must be integrated into the Village Square and designed in a manner that this space is not severed by the road. Trees in hardscape must be included for urban cooling and providing a degree of intimacy to this area.

Area around the STC / Community Hub and listed barns must allow for social seating and set within areas of naturalistic ornamental planting to create an inviting environment.



Figure 128 Brickhouse Square Illustrative Plan

- | | |
|---|--|
| 1 Village Square for flexible use and social gathering | 6 Cycle Parking |
| 2 Changed surface treatment to STC to integrate into the Village Square | 7 Naturalistic ornamental planting |
| 3 Visual connection to Brickhouse Barn | 8 Pedestrian/Cycleway |
| 4 Threshold area incorporating plating to Brickhouse Barn | 9 Social seating for STC / Community Hub |
| 5 Rain gardens / Swales along STC | 10 Sensory garden |
| | ★ Grade II listed building |
| | ★ Potential location for Public Art |

Details of the **Junction** on page 323
 Details of the **Character Area** on page 366
 Details of the **Village Centre** on page 394



Flexible use & social gathering at Village Square



Trees to provide shade within Village Square



Threshold area to Brickhouse Barn



Changed surface material of STC through Village Square



Social Seating for STC / Community Hub



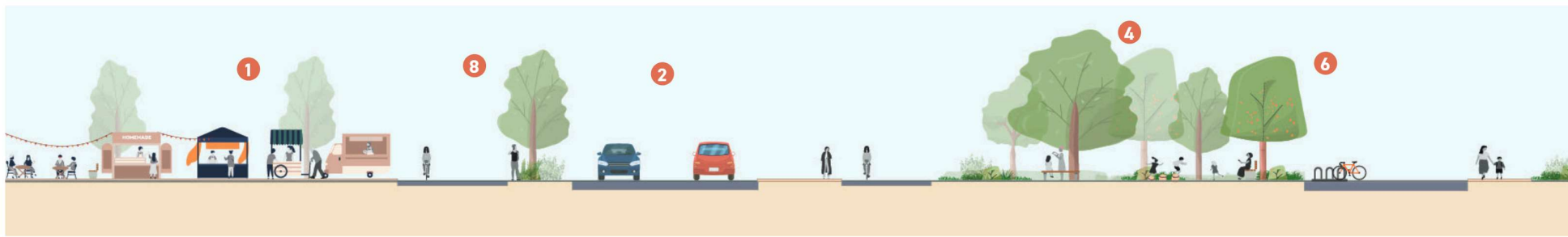
Rain garden/Swales



Sensory garden



Naturalistic ornamental planing



Illustrative section of Brickhouse Square

Material aesthetic

Brickhouse Square will serve as the heart of Village 7's residential community, blending contemporary design with village charm through the use of brick, block paving and warm natural tones.

Public art installations should celebrate local identity, providing visual focal points and encouraging community engagement. Street furniture will be low-maintenance and weather-resistant.

Abundant seating areas should be designed for flexibility, supporting social gatherings and events.

Trees will be planted to introduce greenery, while enhanced materials like granite setts and block paving should define pedestrian paths, shared spaces, and street edges.

Differentiated textures and raised crossings will calm traffic and prioritise pedestrians.

This materials and their careful use will foster community interaction and create a welcoming, sustainable village centre for residents.



Street art installation



Low maintenance street furniture



Integrated lighting design



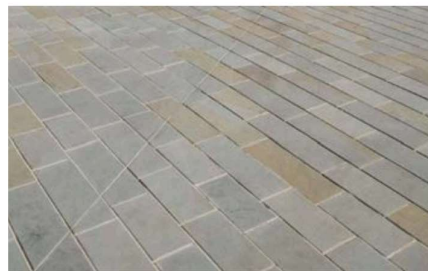
Enhanced street edge and pavement



Social Space for people



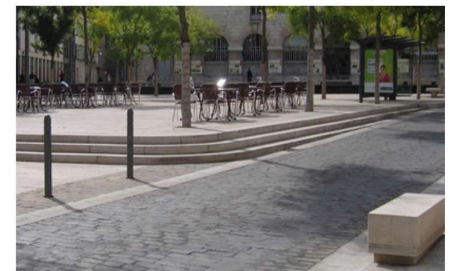
Trees in hard pavement



Enhanced setts/block paving



Enhanced pavement steps



Shared street and crossing treatment

Indicative species

The species selected for Brickhouse Square needs to be tolerant to urban pollution and urban heat. This area will include trees within hardstanding to provide flexible space for the new community. Trees species should also be selected to provide shading across this area.

The trees should be complementary to the STC corridor and provide a framework to create a setting for the retained Brickhouse Barn.



- 1 Acer x freemanii 'Autum Blaze'
- 2 Cercidiphyllum japonicum
- 3 Prunus 'Sunset Boulevard'
- 4 Tilia cordata 'Rancho'
- 5 Liquidambar styraciflua 'Worplesdon'
- 6 Carpinus betulus 'Lucas'
- 7 Cornus mas
- 8 Pyrus calleryana 'Redspire'



Indicative species : Ornamental Planting

A naturalistic planting scheme will add softness and dynamism to Brickhouse Square.

Long flowering perennials and ornamental grasses will celebrate seasonality, whilst creating various layers of transparency and movement through the planting within this area.

The planting palette will compliment existing native plants on the Site.



- 1 Eryngium planum 'Blaukappe'
- 2 Mixed ornamental grasses
- 3 Cephalaria gigantea
- 4 Hylotelephium 'Matrona'
- 5 Viburnum tinus 'Eve Price'
- 6 Veronicastrum virginicum 'Album'

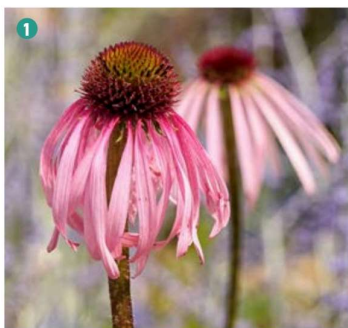
Indicative species : Sensory Garden

The sensory garden planting palette will focus on plants that appeal to all the senses. The use of texture and fragrance will be a predominant feature whilst vibrant colour and sound will also be present.

Ornamental grasses will be soft to touch, seedheads would be left during the autumn and winter for both visual and audible interest. Herbs and fragrant flowering plants will be a key feature.

It is imperative that all plants within the garden are non-toxic

- 1 Echinacea pallida
- 2 Salvia rosmarinus
- 3 Pennisetum orientale 'Tall Tails'
- 4 Lavandula angustifolia 'Hidcote'
- 5 Cosmos atrosanguineus
- 6 Stachys byzantinus 'Big Ears'



Design principles:

- Strong visibility **must** be maintained to the Brickhouse Barns from the Village Square.
- At least one minimum 3m shared pedestrian/cycle route **must** be provided to link the Brickhouse Square to Brickhouse Park and further onto the Greenway and Village 1.
- High quality materials for the hardscape **must** be used to reflect the local character and importance of the key space.
- STC Corridor **must** have a change in material through this area to allow integration and soften its appearance.
- Trees in hardscape **must** be suitable for their location, including provision of sufficient systems for tree pits.
- Areas of naturalistic ornamental planting **must** be provided to create a welcoming approach
- Seating provision to include benches with armrests and backs and picnic tables and chairs **must** be provided
- Provision for cycle parking **must** include provision for non-standard cycles.

- Design **must** positively respond to and sensitively integrate existing features such as retained trees and existing buildings including Brickhouse Farm.

Best practice:

- Public Art Strategy **should** be developed and art should be commissioned for this key civic space
- There **should** be opportunity to create calm, sensory garden spaces in an otherwise busy area
- There **should** be opportunity for feature lighting to add character to Brickhouse Square.
- There **should** be opportunity to integrate wayfinding and art into the hardscape including tree grilles.

Neighbourhood Park

Brickhouse Park



Brickhouse Park will be the key outdoor leisure destination in Village 7. It will complement the mixed uses located in the village square by providing a generous open space with key play facilities (NEAP and LEAP), allotment and orchard gardens. The barn's U-shaped south-facing courtyard provides the opportunity for outdoor seating and raised growing beds supporting a potential restaurant / café overlooking open flexible amenity lawns in the park.

The remnant orchard will be protected and integrated into the community grow spaces and further areas of community orchard and nuttury will be promoted to reflect this local characteristic.

SuDS basins adjoining the play area should feature permanent water to create a focal feature and promote biodiversity. Refer to document 'Scheme for Buffers for Existing Waterways and Strategic Green Corridors' in reference to existing hedgerows and Ordinary Watercourse.

The Greenway (within the SLMP) will define the lower southern part of the park and provide active travel and leisure routes to the Stort Valley and nearby railway stations.

Brickhouse Park is compliant with the 'Sensitive Development Area' defined by the OPA.

- | | |
|---|--|
| 1 Combined LEAP/ NEAP | 7 LAP |
| 2 Allotments/Raised bed community grow garden | 8 Cycle Parking |
| 3 Amenity Lawn | 9 Pedestrian/cycle way connecting Greenway |
| 4 Remnant orchard to be retained | 10 SuDS basin with permanent water |
| 5 Brickhouse Farm courtyard | 11 Attenuation Basin |
| 6 Community Orchard | 12 Greenway |
| | 13 Vehicle maintenance access |
| | ★ Grade II listed building |



Figure 129 Brickhouse Park Illustrative Plan



Incidental social space



Outdoor seating and cafe



Allotments/Raised Bed Community Grow Garden



Combined LEAP/ NEAP



Amenity lawn



Boardwalk in areas of flood zones and SuDS, if needed



Community orchard



Brickhouse Courtyard space



Illustrative section of Brickhouse Park

Material aesthetic

Brickhouse Park will feature a modern aesthetic that transitions seamlessly from Brickhouse Square to the Greenway wilderness.

The material palette will be inspired by the local context, and the new village material aesthetic will be complemented by warm tones to create an inviting atmosphere. Furniture materials will be durable and contemporary whilst respecting the existing neighbouring heritage assets.

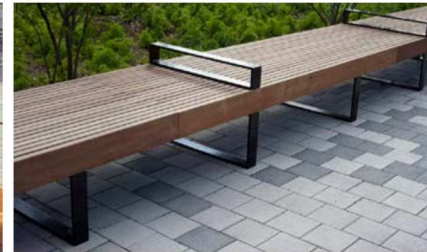
The new park will provide vibrant, modern social spaces with incidental play elements, ensuring a fun and dynamic environment for all ages. The waterside edge will be designed with safety in primary objective, incorporating railings, and natural barriers where appropriate, and all subjected to a Water Safety Audit.

This design will create a space that feels both connected to its surroundings and distinct in its modern appeal.



Brickhouse Farm view from the south (Jan 2022)

Furniture material influenced by local context



Incidental social space & play space



Interactive waterside edge



Indicative species

Brickhouse Park is the key central public open space and therefore the species selected reflects and references the local royal heritage. In the main areas of open space, parkland trees should be used to add structure and celebrate this area.

Community orchards and nuttury including heritage varieties should also be used to root this area into its wider setting and provide a sense of place.

The SuDS basins in this area will feature sections of permanent water to provide a focal feature. Trees in the vicinity of these SuDS features should be appropriate to the wetland character.

- 1 Acer campestre 'Queen Elizabeth'
- 2 Aesculus x carnea 'Briotii'
- 3 Castanea sativa
- 4 Quercus palustris
- 5 Quercus robur
- 6 Taxodium distichum



Design principles:

- Complementary uses **must** be co-located to increase critical mass and create a destination
- Park **must** include a combined NEAP and LEAP in line with EHDC policy requirements. Play area **must** comply with Village play requirements of SLMP.
- Existing Community Orchard **must** be enhanced and well linked to other amenities within the park
- There **must** be at least one minimum 3m shared pedestrian/cycle route, potentially segregated, to link the Brickhouse Park to the Greenway and beyond to Village 1.
- Species rich grass and wildflower mix **must** be used throughout the park
- Grass and wildflower mix for inundation and drought **must** be used in SuDS basins, where appropriate.
- Emergent variants **must** be planted at the base of permanently wet basins.
- Seating provision **must** include benches with armrests and backs and picnic tables and chairs.
- The Brickhouse Farm House, Barn and Orchard **must** be integrated through the use of specimen trees and hedgerow planting, where appropriate.
- The Central Ordinary Watercourse in this area **must** have an 8m buffer zone. Any public realm elements or routes within this buffer zone **must** be water-compatible and **must** not obstruct water flow.
- Access to Brickhouse Farm (which could mean an alternative temporary access) **must** be maintained at all times during construction.

Best practice:

- Public Art Strategy **should** be developed and art should be commissioned for this key civic space
- There **should** be opportunity for feature lighting to add character to the park whilst being sensitive to the setting of the heritage assets.
- Edible foraging trail **should** link the allotments and other landscape features

Green Corridors

Common Principles - Overview



Green Corridors can be sub-divided into the following areas that are unified by the existing structural vegetation network:

- Lord's Green;
- Church Green;
- Brook Green; and
- The Walks.

Green Corridors will be part of the open space network through the development. They will provide quiet walking and cycle routes either within the open space or along development edges, with generous tree, shrub and wildflower planting along their route. Some areas will also support incidental open space or areas of SuDS.

To maintain the existing habitat connection across the Site, existing tree, shrub and hedgerows will be retained. Where sections need to be replaced, their alignment will be maintained to ensure continuity to habitat routes for bats and other wildlife.

Amenities such as play and allotments will also be accommodated within green corridors.



Precedent from Spinney Road, Trumpington



Precedent from Linden Square, Saffron Walden

Design principles:

- Existing hedgerows within green corridors **must** be retained and enhanced with 5m margins either side to be protected from built development. Any SuDS requirements **must** be located outside of the 5m buffer.
- Tree selection **must** include a broad range of native species to increase biodiversity. Tree planting can take place within the 5m buffer, as well as outside, ensuring that any excavation remains outside of the existing Root Protection Areas.
- At least one pedestrian leisure route **must** be provided into each adjacent development parcel.
- LEAPs within green corridors **must** have a 20m buffer from residential frontage .
- Play on the way **must** link playgrounds to encourage active travel via animated routes
- Enhanced materials **must** be used where streets cross through the green corridors.

- Wayfinding strategy **must** be applied across the Green Corridors.
- Ecologically sensitive lighting **must** be used within the corridors and key routes **must** be lit to promote safety whilst being mindful to ecology.
- Native meadow mixes and native perennials **must** be planted within existing hedgerow buffers.

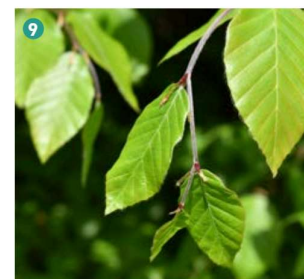
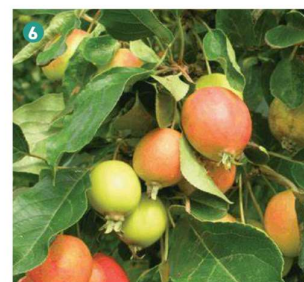
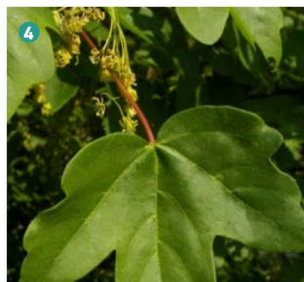
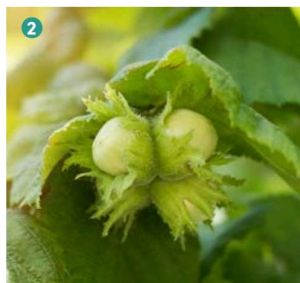
Best practice:

- There **should** be opportunity to include Public Art.
- There **should** be opportunity for feature lighting to add character to the Green Corridors.
- Edible foraging trail **should** link the allotments and other landscape features. Potential to include bee hive in Church Lane Green to contribute towards the environmental strategy.
- Benches or 'perching places' **should** be provided every 50m to encourage active use by a diverse user groups.

Common Principles

Indicative species : Trees

Within the green corridors the planting mix will include tree species that are large and long-lived (Oak), species for SuDS (Willow) and for biodiversity (Hawthorn). There will also be trees that bear berries and fruit (crab apples, elderberry, cherry). References to historic status of the Site will be made through more traditional fruiting species (medlar and quince for example).



- 1 Cydonia oblonga
- 2 Corylus avellana
- 3 Sorbus aucuparia
- 4 Acer campestre
- 5 Quercus robur
- 6 Malus sylvestris
- 7 Prunus avium
- 8 Pinus sylvestris
- 9 Fagus sylvatica

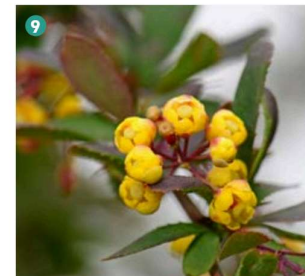
Indicative species : Shrubs and Foraging

Shrub planting will be predominantly native species that will focus on:

- Foraging
- Attracting Wildlife
- Seasonality

Species selection will create visual links to the existing hedgerow, whilst creating structure that compliments perennial and bulb planting.

There should be consideration to flowering (viburnum and wild rose) and fruiting (Elder) species



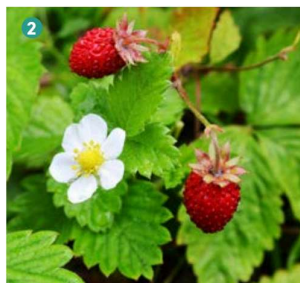
- 1 Sambucus nigra berries
- 2 Sambucus nigra flowers
- 3 Rosa rubiginosa hips
- 4 Rosa rubiginosa
- 5 Ruscus aculeatus
- 6 Rosa pimpinellifolia
- 7 Viburnum opulus
- 8 Berberis vulgaris berries
- 9 Berberis vulgaris flowers

Indicative species : Perennials and Bulbs

Native perennials and naturalising bulbs will be the core of the planting within the green corridors.

Hedgerow wildflower seed mixes will be used to create a diverse mix to compliment the existing hedgerow flora and fauna whilst also creating pollen rich corridors for insects and pollinators and enhancing biodiversity.

It's important to be conscious of not using toxic or thorny plants near LEAPs, LAPs, and play on the way areas



- 1 Cydonia oblonga
- 2 Corylus avellana
- 3 Sorbus aucuparia
- 4 Acer campestre
- 5 Quercus robur
- 6 Malus sylvestris
- 7 Achillea millefolium
- 8 Viburnum opulus
- 9 Rosa arvensis

Hedgerow enhancement strategy

The green corridors follow the existing inherited hedgerows, which are protected by 5-metre margins either side. In the main the hedges are in a good condition, but where gaps have appeared they will be filled with new planting.

The 5 metre offsets generate a corridor with a width of 12+ metres, a 2 metre zone of existing hedge plus the 5 metre offsets to each side. The objective will be to use these green links as connections for movement of both people and wildlife.

The corridors will have a dished profile so that they assist in meeting the SuDS requirements.

The retention and enhancement of this inherited green infrastructure will:

- Increase the overall quantum of tree and scrub habitat
- Increase connectivity between areas of tree and scrub habitat
- Increase the quality of tree, scrub, stream and wetland habitats
- Create new areas of high quality grassland habitat
- Give the new and existing local community improved access to nature

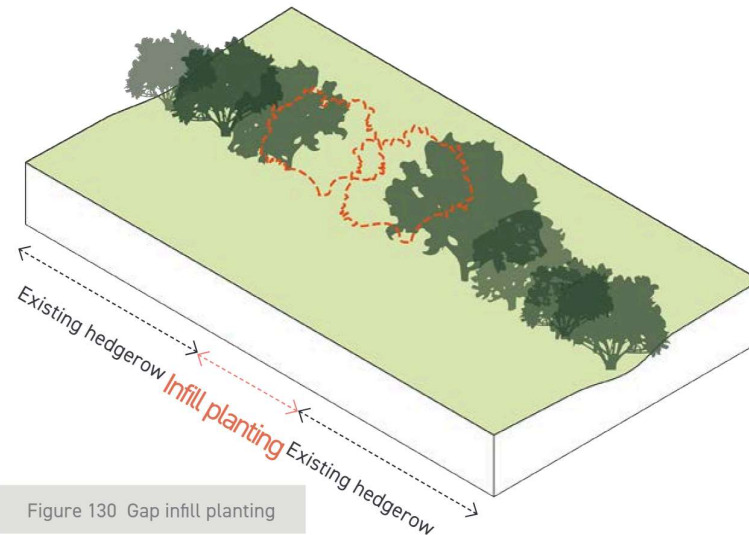


Figure 130 Gap infill planting

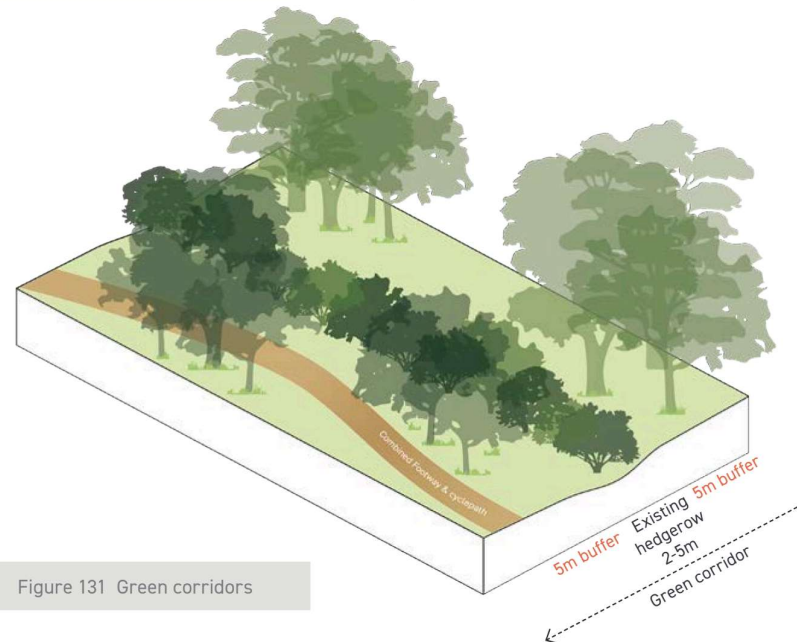


Figure 131 Green corridors

Design principles:

- Existing hedgerows within green corridors **must** be retained and enhanced. Any hedgerow removal **must** be minimal and limited to areas needed for streets and active travel routes, to ensure the promotion of movement and permeability.
- Existing trees within hedgerows **must** be retained, unless deemed unsuitable by an arboriculturist.
- There **must** be a 5m buffer either side of existing hedgerows, which may include paths using no-dig methods
- Gaps in hedgerows **must** be in-filled with native species
- New tree planting within green corridors **must** include fruit and nut bearing species to provide foraging opportunities
- Space for pedestrian access **must** be provided
- There **must** be opportunities for play on the way

Best practice:

- Permanent wet areas **should** be considered for some basins, such as wildlife ponds with draw-down zones seeded with a wet grassland mix to enhance biodiversity
- Minimum 3m shared pedestrian/cycle route access **should** be included in all green corridors

Material aesthetic

The Green Corridors within Village 7 should provide naturalistic pathways, incorporating textured materials in key areas like street edges and crossings to create visual interest and enhance the pedestrian experience.

Street furniture will use natural, durable materials that blend with the landscape, promoting a cohesive and inviting aesthetic.

Incidental social spaces should be integrated along the corridors, with street benches placed at regular intervals along the edges, offering moments for rest and social interaction.

Crossings should feature traffic-calming measures, ensuring pedestrian safety while maintaining a tranquil, community-oriented environment.



Traffic calming measures



Street benches at regular intervals for resting



Copenhagen Crossing style of crossing to put active travel first across vehicular streets



Green Corridor edges: low bollards



Green Corridor edges: separate footway without kerb



Social benches along green corridors



Naturalistic surfacing



Wayfinding and signage must be applied throughout



Changed material on streets through Green Corridors to integrate into public open space

Lord's Green



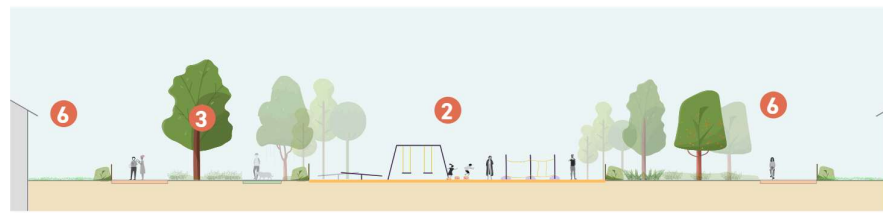
Lord's Green forms the westernmost north-south corridor linking two key SLMP areas: Hunsdon Community Park to the north and Greenway to the south.

Lord's Green is structured around the existing hedgerow which must be reinforced and further enhanced.

Opportunity for play on the way, food trail in particular reminiscent of the historic food production and Tudor influences in this area is integral to the character and aesthetics of this corridor. Pedestrian/cycle links must be provided. Native planting to be encouraged to promote biodiversity.

Active travel route aligned for views to the north and south.

- 1 Allotments
- 2 Local Equipped Area for Play
- 3 Shared cycle/pedestrian link
- 4 Existing hedgerow to be retained
- 5 Connector paths between development parcel
- 6 Enhanced material treatment to streets which cross green corridors
- 7 Play on the way
- 8 Cycle Parking
- 9 Potential for Bee Hive



Illustrative section of Lord's Green



Lord's Green Illustrative Plan



Church Lane Green



- 1 Shared pedestrian/cycle path
- 2 Local Equipped Area for Play
- 3 Play on the way
- 4 Existing hedgerow to be retained
- 5 Native tree planting
- 6 Wildlife and foraging trail
- 7 Enhanced material treatment to streets which cross green corridors
- 8 Cycle Parking

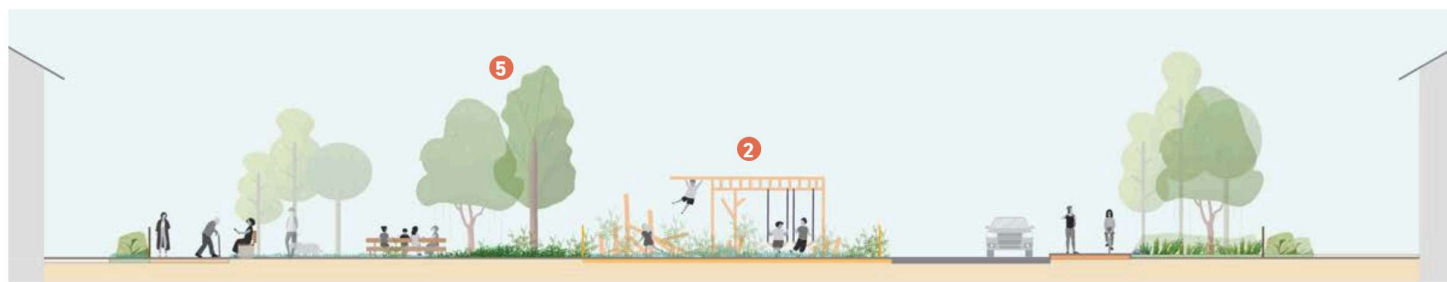


Church Lane Green Illustrative Plan

Church Lane Green forms the central Green Corridor forming a north-south link to Brickhouse Square and Brickhouse Park and as a 'stepping stone' between the Lord's Green and Brook Green.

The existing hedgerows will be retained and reinforced and forms the framework to incorporate a foraging and wildlife trail in the heart of the village.

Church Lane Green must include a play area (LEAP) and shared pedestrian/cycleway, which may be segregated where appropriate and accompanied by opportunities for play on the way. Potential to incorporate public art.



Illustrative section of Church Lane Green

Brook Green



Brook Green forms the eastern most north-south Green Corridor linking Hunsdon Community Park in the north to Brickhouse Park to the south.

This area is featured around the existing ephemeral stream which will be protected. Further areas of SuDS must be designed to provide public amenity.

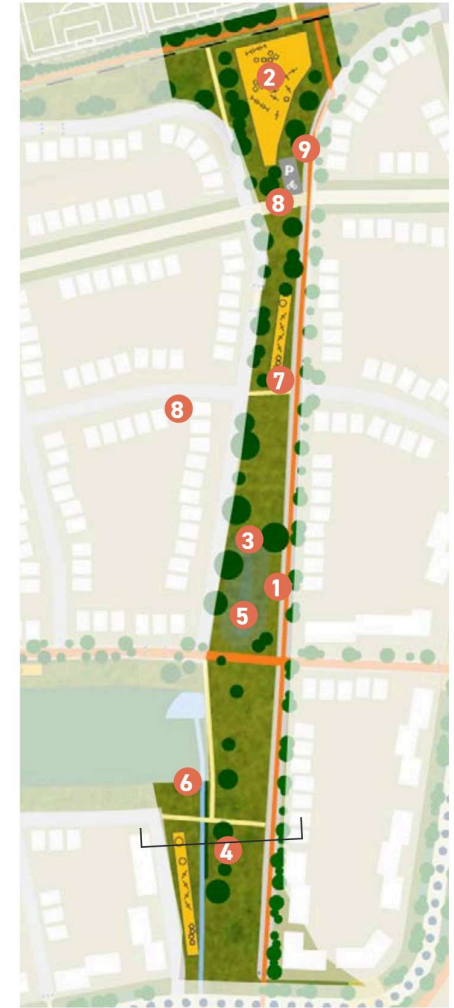
- 1 Shared pedestrian/cycle path
- 2 Local Equipped Area for Play
- 3 Amenity grass
- 4 Existing hedgerow to be retained and reinforced
- 5 SuDS basins designed for public amenity
- 6 Existing ephemeral stream
- 7 Play on the way
- 8 Enhanced material treatment to streets which cross green corridors
- 9 Cycle Parking

Existing hedgerows will be retained and enhanced with further opportunities for native planting, promoting a wet character.

Play is integral to this area and includes a LEAP and play along the way linking the play area within Brickhouse Park.



Illustrative section of Brook Green



Brook Green Illustrative Plan



The Walks



The Walks form the connecting framework structured on the existing hedgerows across the Site, forming a strong network of green spaces throughout.

The Walks have been named based the tenancy field names and other existing assets, to provide a reference to its past and form a sense of place.



Design principles:

- Existing hedgerows **must** be retained, reinforced and extended for example along King's Walk.
- The Walks **must** include shared pedestrian/cycleway, which may be segregated where appropriate and accompanied by opportunities for play on the way.
- Pill Box Wood **must** adhere to principles of buffers for existing woodland (10m) and ordinary watercourse (8m) - Refer to Condition 12 and 32 document.

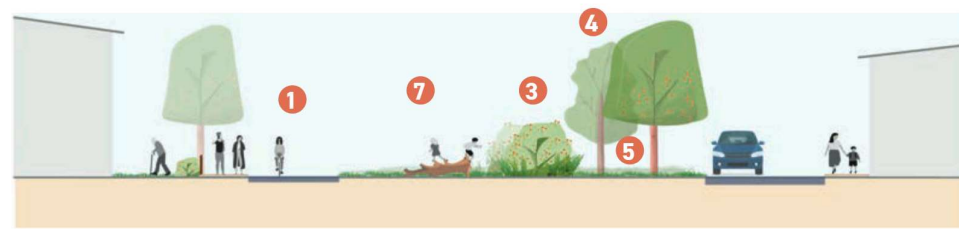


Illustrative extent of The Walks

- 1 Shared pedestrian/cycle path
- 2 Footpath connecting development parcels
- 3 Existing hedgerow to be retained and reinforced
- 4 Native tree planting
- 5 Wildflower grass meadow
- 6 Opportunities for foraging
- 7 Play on the way
- 8 Enhanced material treatment to streets which cross green corridors
- 9 Cycle parking and bus stop



Zoomed in extract of The Walks



Illustrative section of The Walks

Village Edges

Hunsdon Community Park Edge



Illustrative extent of Hunsdon Community Park Edge

The soft landscape around the village edge will provide an important buffer between built development and the Strategic Landscape area around Village 7. This zone will perform a number of ecosystem services as well as providing visual screening.

Along the north of the development area, the topography is highest and the visual impact of development is most prominent. Tree planting along this edge is important to screen the built development from existing sensitive heritage assets to the north of the Site. The northern village edge will include generous tree planting.

The Hunsdon Community Park Edge undulating alignment follows the topography and provides an active frontage edge to the football hub, with rich and varied tree planting softening the transition between the village and its northern parkland. This approach is further reinforced by the school fields also softening this edge as approached from Church Lane from the north.



Zoomed in extract of Hunsdon Community Park Edge



Illustrative section of Hunsdon Community Park Edge

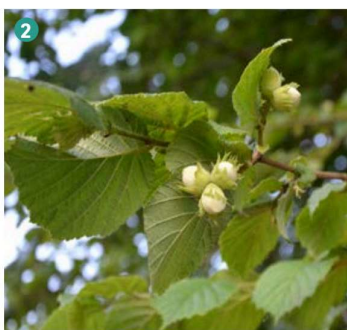
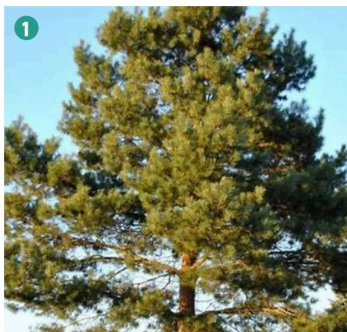
- 1 New tree planting within wildflower grass mix
- 2 Semi-mature standard tree located near Football Hub floodlighting
- 3 Tree mix to include at least one evergreen species
- 4 Fruiting and nut bearing species
- 5 Play on the way
- 6 Open edge to green space to allow permeability
- 7 1.5m mown grass strip adjoining footpath

Indicative species

Trees will provide an important screening function along this northern boundary. Tree planting will also help provide a softer, more undulating edge to development. Species must be selected to provide year round screening so at least one conifer must be included.

Areas in close proximity to the village 7 football hub floodlights (within the SLMP area) should have large, semi-mature standard tree planting to assimilate the vertical light posts.

Fruit bearing species must be included to extend the 'foraging landscape' to the north within the SLMP area.



- 1 Pinus sylvestris
- 2 Coryllus avellana
- 3 Acer campestre

Design principles:

- Tree selection **must** include a broad range of native species to increase biodiversity and at least one evergreen species for year round screening.
- Tree and shrub mix **must** include fruit and nut bearing species such as hazelnut, elder and apple to extend the foraging landscape within the Strategic Landscape area.
- 1.5m mown grass strip **must** be maintained along both sides of footpath and pavement edges where it does not adjoin another hard surfaced area such as a road.
- The northern boundary of village 7 **must** include an undulating edge for soft planting (between 5m-30m wide) to prevent a hard linear edge to the development and **must** be informed by topography and contours.
- Semi-mature trees to be planted in areas adjacent to the Football Hub flood lights to mitigate light spill near residential streets.
- Understory **must** be planted with species rich native wildflower grass mix.

- Opportunities for play on the way within the woodland edge **must** be explored.
- Bulb planting **must** be included in understory planting mix to extend seasonal interest.
- Planted edges of hedgerows and trees **must** be used to integrate sports features (within SLMP) into the landscape and provide a transition zone.
- Tree planting in the areas adjacent to the football hub artificial grass pitches (within SLMP) **must** not be deciduous or leaf sap forming species. Tree selection in this area **must** not be shallow rooting to avoid future damage to the sports pitches.

Best practice:

- Benches or 'perching places' **should** be provided every 50m to encourage active use by a diverse user groups.
- Signage and information boards **should** be considered along routes to highlight archaeological sites.

Stone Basin Spring Edge



The eastern edges of the Village 7 development area plays a multifunctional role drawing in the naturalistic character of the wider SLMP which includes existing woodland and other sensitive ecological habitats. This area must therefore be planted with native species, found on-site and within the local area to help create a well integrated development edge.

This edge forms the link between Village 7 and Village 6 and must have strong legibility and routes. The LEAP within this area may partially lie within the SLMP depending on the final design, however, it must form an integral part of the entrance feature to the Village from the east.

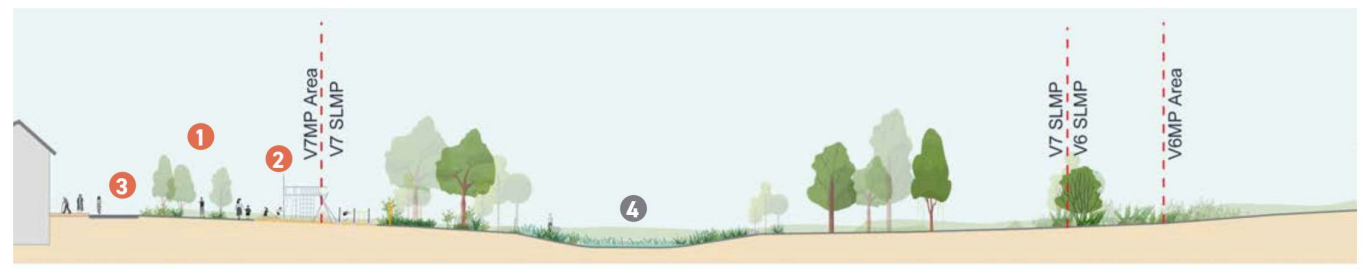
- 1 Tree planting to include large standards and whips to soften and integrate the built edge
- 2 'Adventure play' LEAP to be located within eastern edge
- 3 Open edge to green space to allow permeability
- 4 Naturalistic SuDS basins (within SLMP)
- 5 Sustainable Transport Corridor
- 6 Pedestrian/cycle links to Village 6
- 7 Gypsy and Traveller site (within SLMP)



Zoomed in extract of Stone Basin Spring Edge



Illustrative extent of Stone Basin Spring Edge



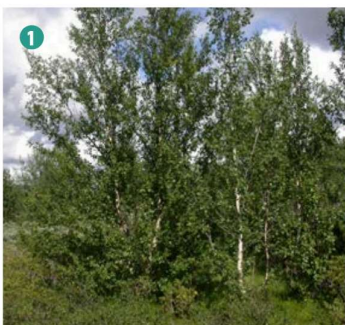
Illustrative section of Stone Basin Spring Edge

Indicative species

Species for Stone Basin Spring Edge along the east of village 7 have been selected based on the existing tree species present in the woodland adjoining Stone Basin Spring.

SuDS basins within the SLMP adjoin the Stone Basin Spring Edge. Trees in the vicinity of these SuDS features should be appropriate to the wider wetland character.

Open areas should form a combination of wildflower meadow and amenity planting.



1 Betula pubescens

2 Coryllus avellana

3 Acer campestre

Design principles:

- Play area within Stone Basin Spring Edge **must** have a 20m buffer zone from residential frontages.
- Footpath along the perimeter of the development edge **must** allow easy interaction with nature.
- Tree planting **must** include extra heavy standards as well as whips to ensure good early screening.
- Fruit and nut bearing tree and shrub species **must** provide opportunities for foraging.
- Understory **must** be planted with species rich native wildflower grass mix.
- Village developable area boundary line **must** not be defined or discernible
- SuDS and planting beyond the village boundary **must** be naturalistic in character.
- The use of knee-rails and other forms of fencing at development edge **must** be avoided to ensure permeability
- Opportunities for play on the way **must** be explored.

Best practice:

- Wayfinding element **should** be included where hardstanding shared paths link to the village edge.
- Benches or 'perching places' **should** be provided every 50m to encourage active use from a wide range of users.

Greenway Edge



The southern edges of the Village 7 development area will provide a key function of knitting the development in to the wider SLMP area (Greenway) and the existing natural landscape beyond that. This area must therefore be planted with native species, found on-site and within the local area to help create a well integrated development edge.

Greenway Edge will have a natural grade tie in with any earthworks taking place within Greenway (SLMP) to ensure the open space maintains a natural topography for the enjoyment of the public.

Attenuation basins will be present throughout this space and the final design will need to balance maximising the biodiversity value of the end of chain SuDS features alongside providing good recreational access routes through the space for residents and visitors.

- 1 New tree planting within wildflower grass mix
- 2 SuDS basins seeded with marginal species grass and wildflower mix
- 3 Open edge to green space to allow permeability
- 4 Existing hedgerows to be retained
- 5 Nature play opportunities near footpaths
- 6 Pedestrian/cycle access paths to Greenway in the SLMP area



Brooklands - Milton Keynes (EPD Parkwood)



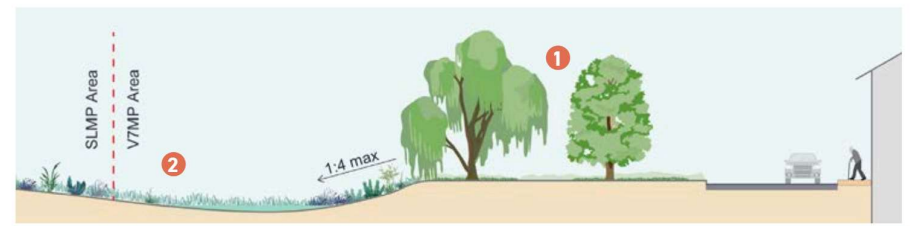
Barton Park - Headington, Oxford



Illustrative extent of Greenway Edge



Zoomed in extract of Greenway Edge

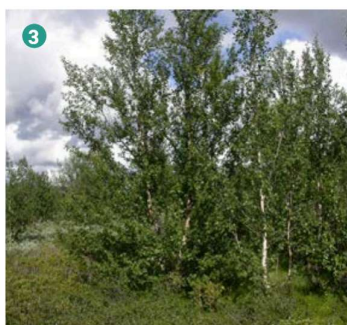
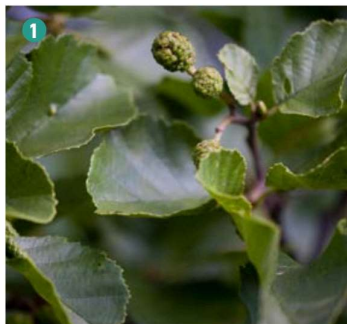


Illustrative section of Greenway Edge

Indicative species

Species for the marginal edge spaces around the south of village 7 have been selected based on their suitability for relatively high ground water as these areas are at the lowest topography and host the end of chain SuDS features. Tree species such as Alder, Willow and Birch are present on-site, particularly along the western boundary, and will be introduced along the southern edge zone near to SuDS basins.

Open areas should be planted with marginal grass and wildflower mix within SuDS basins.



- 1 Alnus glutinosa
- 2 Salix alba
- 3 Betula pubescens

Design principles:

- Tree selection **must** include a broad range of native species to increase biodiversity.
- Tree, shrub and wildflower grass species **must** respond to the species used in the adjacent Strategic Landscape area to ensure the development is well integrated with the surrounding landscape.
- New tree planting **must** be included, however all proposed trees **should** be planted outside of suds basin extents.
- SuDS basins **must** be seeded with species rich marginal, wetland mix, native wildflower and grass species to enhance biodiversity.
- Open grass areas **must** be seeded with species rich native wildflower and grass mix.
- Street lighting at village edge **must** be sensitively designed to protect habitats and ecological commuter routes.

- The use of knee-rails and other forms of fencing at development edge **must** be avoided to ensure permeability.
- Opportunities for play on the way **must** be explored.

Best practice:

- Wayfinding element **should** be included where hardstanding shared paths link to the village edge.
- Benches or 'perching places' **should** be provided every 50m to encourage active use from a wide range of users.

Hunsdon Brook Edge



The western edge of the Village 7 is characterised by its proximity to Lord's Wood (an ancient woodland) and the Hunsdon Fishponds (a scheduled monument). Any earthworks in this area must take into consideration these existing sensitivities and allow for a natural tie in, to maintain a perception of natural topography.

The Hunsdon Brook Edge forms a key transitional area to integrate the new built edge sensitively into the wider context. Low level lighting, enhanced hedgerow and tree planting are central to provide this soft transition between the development and the existing habitats and assets.

Further opportunities for interpretation, wayfinding and connectivity to the existing PRow in the wider SLMP area.

- 1 PRow to be retained (within SLMP)
- 2 Wayfinding signage to define 'Heritage Trail'
- 3 Clearly defined link to PRow
- 4 Pedestrian & cycleway, potentially segregated, to link to commuter route in SLMP
- 5 Open edge to green space to allow permeability
- 6 Opportunity to create a foraging trail
- 7 Screening planting along edge of Sensitive Development Area to mitigate visual impact
- 8 Key Gateway - potential to create a landmark/focal point



Illustrative section of Hunsdon Brook Edge

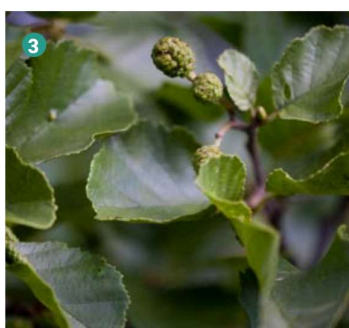


Illustrative extent of Hunsdon Brook Edge

Indicative species

Species for Hunsdon Brook Edge along the west of village 7 have been selected based on the existing tree species present in the Ancient Woodland in the near vicinity and other existing vegetation on-site. The proximity to heritage assets including the Ancient Woodland reinforces the need to select native species in this area whilst being mindful of the requirements of an urban edge.

SuDS basins within the SLMP adjoin the Hunsdon Brook Edge. Trees in the vicinity of these SuDS features should be appropriate to the wider wetland character.



1 Quercus robur

2 Salix alba

3 Alnus glutinosa

Design principles:

- Street lighting at village edge **must** be sensitively designed to protect habitats and ecological commuter routes and to avoid light spread within the SDA.
- Links to the PROW **must** be provided from the development parcels.
- Interpretation and wayfinding signage **must** be included to describe the Hunsdon Fishponds and add to the wider SLMP 'Heritage Trail'.
- Hedge and tree planting **must** be enhanced along boundary with Hunsdon Fishponds to protect the Scheduled Monument from damage caused by potential excessive additional footfall.
- The use of knee-rails and other forms of fencing at development edge **must** be avoided to ensure permeability.
- Appropriate levels of vegetation **must** be introduced, with key planting and specimen trees to provide a natural edge to the proposed development and reflect an agricultural-type field or meadow boundary

- Any features (this may include planting, active travel routes, SuDS etc.) **must** be sensitively designed so as to avoid any unacceptable visual impact on the setting of the fishponds or impact on their significance, and to enhance their setting where possible.
- Opportunities for play on the way **must** be explored.

Best practice:

- Wayfinding element **should** be included where hardstanding shared paths link to the village edge.
- Benches or 'perching places' **should** be provided every 50m to encourage active use from a wide range of users.



Artist's impression of leisure route through
public open space



Play

Distinctive Themes for Play Areas

All larger play areas (LEAPs and NEAP) must have a distinctive theme attributed to the play areas.

Suggested themes for these are outlined below and should be explored through detailed design.

Brickhouse Park NEAP/LEAP

The play area within Brickhouse Park could reference the area's historic assets such as Hunsdon House - a royal residence with extensive parks for hunting, and associated with all the Tudor monarchs starting with Henry VIII. Opportunity to celebrate the local royal heritage, potential to include a castle and moat.

Lord's Green LEAP

The Lord's Green play area could draw inspiration from the nearby Lord's Wood - an Ancient Woodland, adjoining a group of Tudor fishponds. Potential to integrate adventure within nature.

Stone Basin Spring LEAP

The LEAP at the eastern edge could reflect the existing undulating topography and wet character attributed by the Stone Basin Spring. Opportunity to introduce water and woodland play to embed into the natural surroundings.

Brook Green LEAP

The Brook Green LEAP is the northern most play area and in the direction of the nearby airfield. Opportunity to reference and celebrate the connection with the airfield.

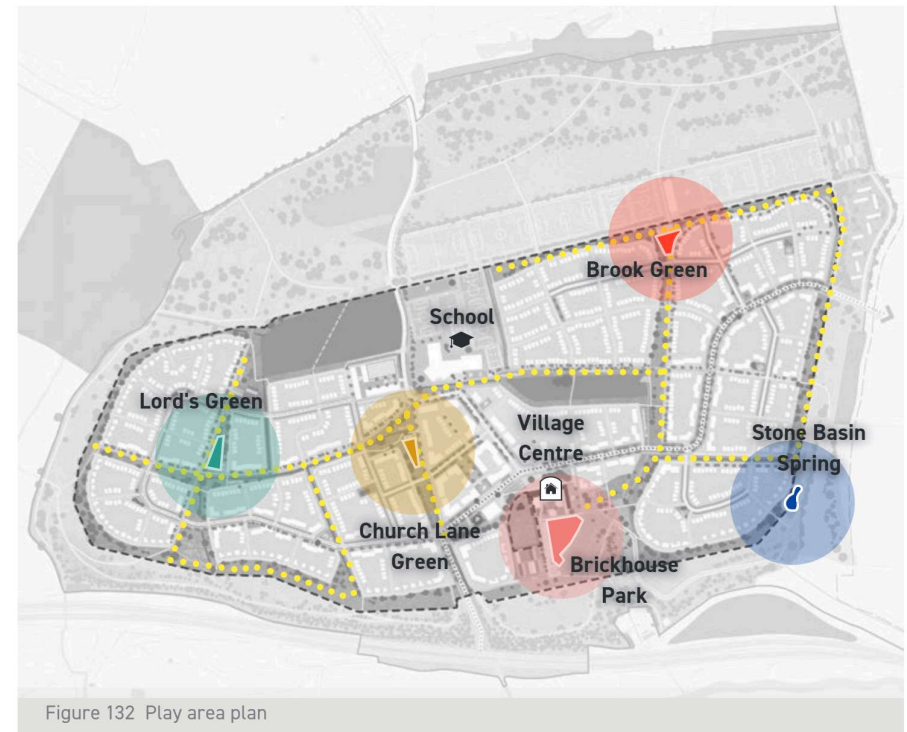


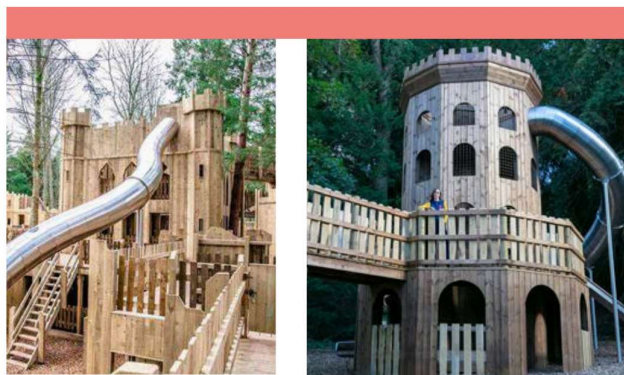
Figure 132 Play area plan

Church Lane Green LEAP

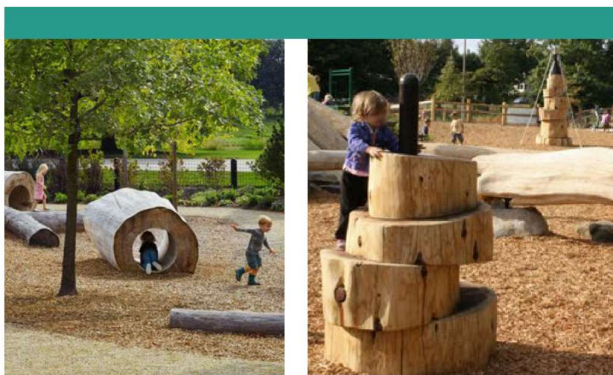
The play area within Church Lane Green is set in a central location with existing hedgerows marking the old field pattern. Opportunity to interpret the historic food production and farming in this area through play.

Play on the way

Play on the way alongside pedestrian/cycle paths in green corridors must feature natural informal play such as logs, stumps, boulders etc. to create imaginative play to animate the routes through these spaces.



Brickhouse Park NEAP/LEAP



Lord's Green LEAP



Stone Basin Spring LEAP



Brook Green LEAP



Church Lane Green LEAP



Play on the way

Neighbourhood Equipped Area for Play (NEAP)



The Neighbourhood Equipped Area for Play (NEAP) will have a minimum area of 1000m², comprising an area for play equipment & structures, and a hard surfaced area of at least 465m² for informal sports use.

Description of provision:

- Area of open space specifically designated, laid out and equipped mainly for older children but with play opportunities for younger children too
- To be incorporated into Neighbourhood Park - Brickhouse Park
- To be overlooked to allow for improved passive surveillance
- To be located beside a well-used pedestrian route

- Intended primarily for older children of relative independence, who have the freedom to range further from home
- Within 15 minute walking distance of the child's home (1km walking distance, 600m equivalent radial distance)
- Designed to provide a stimulating and challenging play experience including opportunities for balancing, rocking, climbing, overhead activity, sliding, swinging, jumping, crawling, rotating, imaginative play, social play, play with natural materials such as sand and water, ball games, wheeled areas or other activities

- 1 Main play area to include at least 9 play elements. Area to include safety surface of appropriate depth to each piece of play equipment
- 2 Picnic area within open amenity lawn for flexible play and sports
- 3 Sand play with decking and climbing rocks for younger age play
- 4 Seating and bins
- 5 Fence to main play area to be set within ornamental planted boundary
- 6 Entrance gate to main play area



Figure 133 Plan demonstrating potential components of the combined NEAP/LEAP in Brickhouse Park

- 7 Cycle stands
- 8 Wayfinding & information board at entrance including information on prohibition of dogs
- 9 Nature play area to include woodchip mulch, felled logs and a bug hotel
- 10 Planting to integrate play into wider park
- 11 Area for older teens to include a high quality 'amphitheatre' type seating platform and sports items such as table tennis or basketball hoop for informal sports use



Opportunities for imaginative play



Timber frame play objects to complement the semi-rural setting



A variety of surfaces and equipment



Engaging activities for older children and teenagers

Design principles:

- 1 NEAP **must** be provided within Village 7.
- Combined NEAP/LEAP **must** form the Village Play (min. 2000m²) as set out in the SLMP. The combined NEAP/LEAP **must** be designed to create one cohesive place.
- The NEAP **must** include at least 9 separate pieces of play equipment, including equipment for children with disabilities.
- Play equipment **must** be of a high quality and predominantly comprise timber or other natural materials to enhance the public realm and reinforce the connection to nature within the green corridors and parks.
- There **must** be a picnic area within open amenity lawn for flexible play and sports.
- Sand play with decking and climbing rocks **must** be provided for younger age play.
- A range of seating **must** be included along with provision for bins.
- Fence to main play area **must** be set within ornamental planted boundary.
- There **must** be an entrance gate to the main play area.

- There **must** be cycle stands.
- Wayfinding and information boards **must** be at the entrance.
- Area for older teens **must** include seating platform and sports items such as table tennis or basketball hoops.
- There **must** be a min. 30m buffer zone separating the activity zone and the boundary of the nearest dwelling. Buffer zone to include varied planting to provide a mix of scent, colour and texture.
- **Must** use principles set out by Make Space for Girls to create an equal environment.
- **Must** include quiet areas within the NEAP to accommodate children with neurodiversity.

Best practice:

- There **should** be opportunity to include public toilet facilities that are free, universally accessible, and for all genders in the vicinity of the play area.
- There **should** be an opportunity to create an amphitheatre integrated within earthworks in and around this area, particularly to the south.

Local Equipped Area for Play (LEAP)



The Local Equipped Areas for Play (LEAP) will have a minimum area of 400m² each.

Description of provision:

- Area of open space specifically designated and laid out with features for children who are beginning to go out and play independently close to where they live.
- To be incorporated into larger open space provision, e.g. parks & gardens, amenity spaces and/or natural & semi-natural spaces.
- To be overlooked to allow for improved passive surveillance.
- To be located beside a well-used pedestrian route.

- To be located at a safe & reasonable distance from adjacent streets, particularly primary and secondary routes.
- Within 5 minute walking distance of the child's home (400m walking distance, 240m equivalent radial distance).
- Occupying a well-drained, reasonably flat site surfaced with an appropriate surface, e.g. grass, safety-surfacing or hard surface(s).
- Designed to provide a stimulating and challenging play experience that may include equipment providing opportunities for balancing, rocking, climbing, overhead activity, sliding, swinging, jumping, crawling, rotating, imaginative play, social play and play with natural materials such as sand and water, or other activities.

- 1 LEAP to include at least 6 play elements.
Area to include safety surface of appropriate depth to each piece of play equipment.
- 2 Seating and bins
- 3 Fence to be partially set within ornamental planted boundary.
- 4 Entrance gate



Figure 134 Plan demonstrating potential components of a typical LEAP within an open green space

- 5 Cycle stands
- 6 Wayfinding & information board at entrance including information on prohibition of dogs
- 7 Planting to integrate play into wider public open space
- 8 Pedestrian and Cycleway Leisure Routes



A mix of natural play and play equipment



Swinging



Challenging play experience



Provision for younger children

Design principles:

- 5 no LEAPs **must** be provided within Village 7.
- LEAP within Brickhouse Park **must** be combined with the NEAP. This LEAP will form part of the Village Play (min. 2000m²) as set out in the SLMP. The combined NEAP/LEAP **must** be designed to create one cohesive place.
- LEAP **must** include at least 6 separate pieces of play equipment providing at least 6 experiences.
- Play equipment **must** be of a high quality and predominantly comprise timber or other natural materials.
- There **must** be play equipment for ages 1-12 years including equipment for children with disabilities.
- Each LEAP **must** have a distinctive theme.
- Seating **must** be provided along with provision for bins.
- Fence to main play area **must** be set within ornamental planted boundary.
- There **must** be an entrance gate to the main play area.

- **Must** be accessible from nearby cycle and pedestrian route.
- **Must** include provision of convenient and secure parking facilities for bicycles, including cycle stands.
- There **must** be Wayfinding and an information board at the entrance.
- There **must** be screening planting.
- There **must** be min. 20m buffer zone separating the activity zone and the boundary of the nearest dwelling. Buffer zone to include varied planting to provide a mix of scent, colour and texture.
- **Must** include quiet areas within the LEAP to accommodate children with neurodiversity.

Best practice:

- LEAPs straddling V7 development area and SLMP **should** be min. 625m², to align with Neighbourhood Play principles in SLMP

Local Area for Play (LAP)

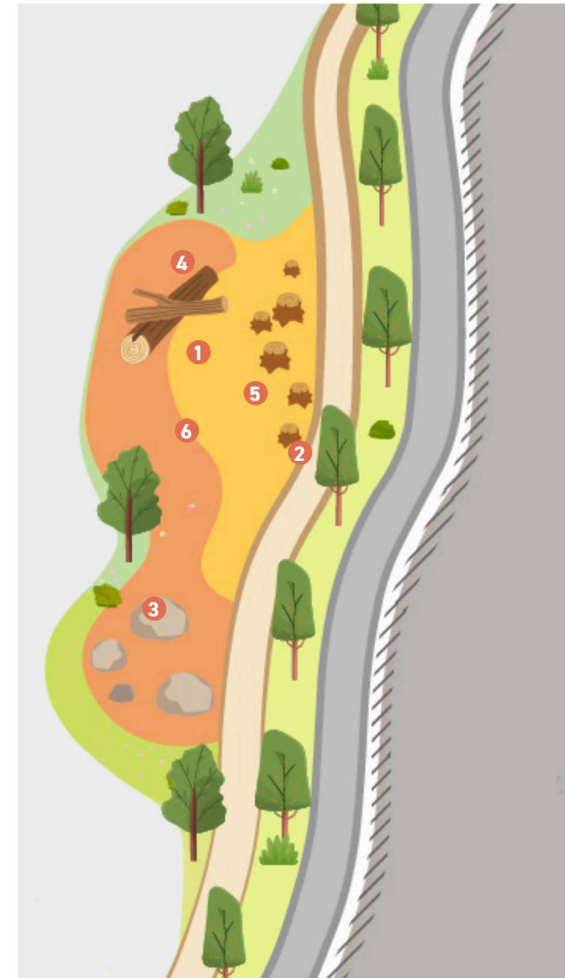


The Local Areas for Play (LAPs) will have a minimum area of 100m² activity zone each, to be distributed in line with the above diagram.

Description of provision:

- Areas of open space designed to encourage informal play and social interaction
- To be overlooked to allow for improved passive surveillance
- To be located at a safe & reasonable distance from adjacent streets, particularly primary and secondary routes

- To be incorporated into larger open space provision, e.g. parks & gardens, amenity spaces and/or natural & semi-natural spaces, wherever achievable
- Intended for children up to the age of 6, though may be used by older children at different times of the day or evening
- Within 1 minute walking distance of the child's home (100m walking distance, 60m equivalent radial distance)
- Occupying a well-drained, reasonably flat site surfaced with an appropriate surface, e.g. grass, safety-surfacing or hard surface(s)
- Not necessarily requiring play equipment as such, relying more on demonstrative features indicating that play is positively encouraged
- To be located alongside a well-used pedestrian route
- Depending on location, it may have a 600mm guard rail, low fence or planting to indicate the perimeter.
- Similarly, depending on location, there may need to be a barrier limiting the speed of a child entering or leaving the LAP



- 1 LAP to include at least 3 physical play elements
- 2 Footpath
- 3 Climbing rocks/perching place
- 4 Felled tree/climbing logs
- 5 Stepping stumps
- 6 Open area for running/chasing



Play areas adjacent to tertiary roads and within green space



Stepping stumps and climbing logs



Natural play features



Playful objects in the public realm

Design principles:

- Min 3 no. physical play elements per LAP or doorstep play area **must** be provided e.g. boulder, stepping stumps, felled logs.
- Play elements **must** be of a high quality and predominantly comprise timber or other natural materials.
- LAP **must** include an open area allowing children to be generally active and play 'chase' type games.
- LAP **must** have min. 5m buffer zone separating the activity zone and the frontage of the nearest dwelling.
- LAP buffer zone **must** include varied planting to provide a mix of scent, colour and texture.
- LAPs **must** cater for children up to 6 years of age 'LAPs can also be provided as part of a LEAP'.
- LAPS, where possible **must** be located within residential parcels and integrated with tertiary streets and shared surfaces, whilst ensuring safety of the children.

Best practice:

- Opportunity to include seating and litter bins for accompanying adults and siblings **should** be explored.
- Fencing **should** be used only if necessary for safety purposes.

Play on the Way

Play on the Way

Play on the Way must be incorporated along the route indicated in the diagram. Although opportunities for incidental play should be explored throughout the Site and not limited to the route. No minimum area of activity zone is required but should be incorporated into design of public realm, open space and streetscapes to provide a stimulating environment turning everyday journeys into a mini-adventure.

Play on the Way should:

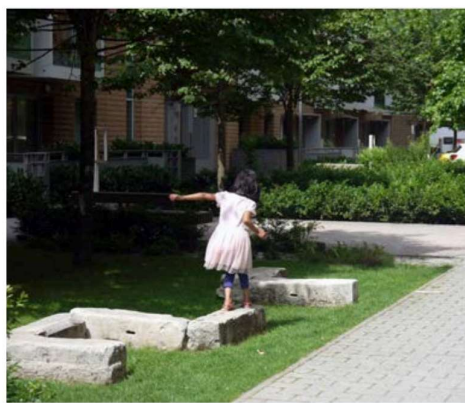
- be overlooked to allow for improved passive surveillance
- be located at a safe and reasonable distance from primary and secondary roads.
- be incorporated into key pedestrian and cycle routes
- not necessarily feature play equipment but should facilitate play through incorporating demonstrative features indicating that play is positively encouraged.
- provide opportunities for imaginative, inventive and or incidental play through the provision of natural elements (such as logs, boulders or stepping stones), planting, street furniture, paving surfaces etc.
- general features in the streetscape could be designed to incorporate play on the way features to provide further integration. E.g. use of boulders and feature pebbles instead of bollards, edging to act as stepping stones, paving laid out in different patterns for hopping/ following activities etc.



Figure 135 Indicative route of Play on the Way



Playful objects along routes



Balancing elements to create an interesting journey



Integrated playful elements within the streetscape



Playful objects in the public realm

Design principles:

- Incidental play elements **must** be integrated along indicated route to create a playful journey.
- Play elements **must** be of a high quality and predominantly comprise timber or other natural materials or be part of the streetscape material aesthetic.
- No fencing **must** be used on Play on the Way spaces.



Best practice:

- Play on the way **should** be located at approximate spacing of 200m centres along indicated route.
- Opportunity to include Play on the Way throughout the Site, apart from the indicated route **should** be explored.
- Play on the Way **should** be incorporated with other objects in the public realm, example playful seating, asphalt art, edging, boulders, patterned paving etc.



Allotments and Food Growing



Figure 136 Allotment and Food Growing Diagram



Figure 137 Brickhouse Park Extract



Allotments

Within Village 7 there will be allotment provision within Brickhouse Park and Lord's Green. This will help embed sustainable food production into the emerging community. Allotment sites will be well connected to all development parcels within Village 7 to encourage uptake of the available plots.



Raised Bed Community Grow Garden

At the proposed community hub at Brickhouse Farm there is an opportunity to include raised beds for a community grow garden to help reinforce the Site's connection to its arable past. There are opportunities for combining with allotments and nearby community orchard.



Community Orchards

The existing orchard east of Brickhouse Farm will be retained as a community orchard. Tree species will be added to with a wide range of different fruiting/productive tree species with biodiverse understory planting. Opportunities for education and providing local varieties to highlight local heritage.



Foraging species within green corridors



Harvest festival events at Brickhouse Barns



Pocket allotments - dotted across the Site alongside streets, like parklets, wherever space permits

Design principles:

- The development specification states that Village 7 allotment space **must** be 1.14 ha.
- Each home within the Village development **must** be within 1000m of an allotment. Active travel modes **must** be promoted, including consideration of transporting large/heavy tools/ compost etc.
- Allotment design **must** be developed following best practice guidance in relation to accessibility and sustainability.
- Allotments **must** be sensitively integrated into the landscape through appropriate boundary treatment. (E.g. biodiverse hedgerow edges with foraging species and perimeter fence) Perimeter fencing **must** be integrated into the boundary treatment to provide protection from foraging animals.
- An access for maintenance vehicles and deliveries **must** be provided via a shared surface adjacent to the residential parcel, which **must** be designed to allow restricted vehicle access only and bollards (or another deterrent) must be used to deter motorised vehicles from entering nearby active travel routes.

- Multiple watering points **must** be provided. Sustainable water collection and use for irrigation to be promoted e.g. Water collection and retention from structures e.g. sheds and cold-frames or shared rainwater collection and storage systems.
- Universally accessible routes & seating provision within conveniently located plots & communal facilities **must** be provided.
- **Must** provide signage and information boards.
- Shade analysis **must** form part of the allotment design process, as part of future RMAs to ensure allotments are not cast in excessive levels of shade.
- Sustainable soil management practices to promote soil health **must** be promoted as part of guidance to allotment holders.

Best practice:

- Potential communal sheds **should** include storage and opportunity for associated outdoor social area.
- Communal areas for composting and donation of wood chips, leaf mould and manure **should** be provided.
- Allotments **should** provide capability for seedling protection & rainwater harvesting through a consistent approach which promotes sustainable horticulture practices.
- A range of different beds **should** be provided, including raised beds of varying sizes and heights to deal with level changes and different mobility needs.
- Recommended size of allotment plots **should** be a minimum of 8m width x 8m length.
- Opportunities for pocket allotments **should** be explored and is encouraged within residential parcels and alongside streets.





View looking north towards Brickhouse Farm

Earthworks Strategy

The earthworks strategy provides an overview of the principles of 'cut and fill' operation with the aim that a balance is to be achieved on-site.

The ground will be re-profiled in the following manner.

- The Site will be stripped of topsoil/ made ground.
- Levels of the stripped site will then be adjusted where necessary through further excavation to reach the proposed regraded ground levels. Topsoil and subsoil materials will be maintained in discrete material classes, being stockpiled, in-filled or transported to a permanent reception area for re-use within the development in the manner described below:

Uncontaminated earthworks material generated when the Site is re-profiled will be used to raise the levels of the Hunsdon Community Park.

Contaminated earthworks material (if identified by future testing) will either be remediated to allow it to be reused on-site in the construction of the noise bund, or it will be transported off-site and disposed at a licenced waste handling facility.

A proportion of the topsoil generated will be managed appropriately to allow it to be reused within the development.

Any excess topsoil will be managed appropriately to allow it to be placed within the Hunsdon Community Park over areas of land that will be re-profiled to accommodate excess earthworks materials.

Demolition arisings will be processed where possible to form granular material so that this material may be reused to form pavement foundations, piling mats and backfill for drainage and service trenches.

Design principles:

- Noise mitigation bund **must** be constructed from site won soils subject to construction phasing, before additional material is brought on-site.
- Large expanses of substantial retaining walls **must** be avoided. If required it may be more appropriate to apply the principle of stepped terraces rather than long lines of retaining walls.
- In the event that future testing indicates that the existing topsoil is not suitable for reuse within proposed gardens, additional topsoil **must** be imported.
- The placement of fill material **must** be kept back from the Root Protection Zone (RPZ) of the trees and the hedgerows.
- All material **must** be handled in line with principles outlined in the Construction Environmental Management Plan (CEMP) and BS3882:2015 British Standard Topsoil.

Best practice:

- Site levels **should** be designed to minimise the volume of earthworks/ construction materials that are required to be imported. However, imported granular fill will be required to construct reinforced earth structures and pavement foundations.
- The proposed earthworks **should** take into consideration of how the retained lanes, hedges and trees will sit in an immediate and new landform that will experience considerable change.
- Short term and piecemeal solutions with fragmented phasing **should** be avoided as it may result in environmental harm, unnecessary expenditure and a delayed mitigation process.
- Areas of proposed fill in Hunsdon Community Park **should** be no more than a maximum depth of 0.5m and be completed in a manner that provides a natural looking and sympathetic finished surface profile, following the natural rises and falls of the wider topography.

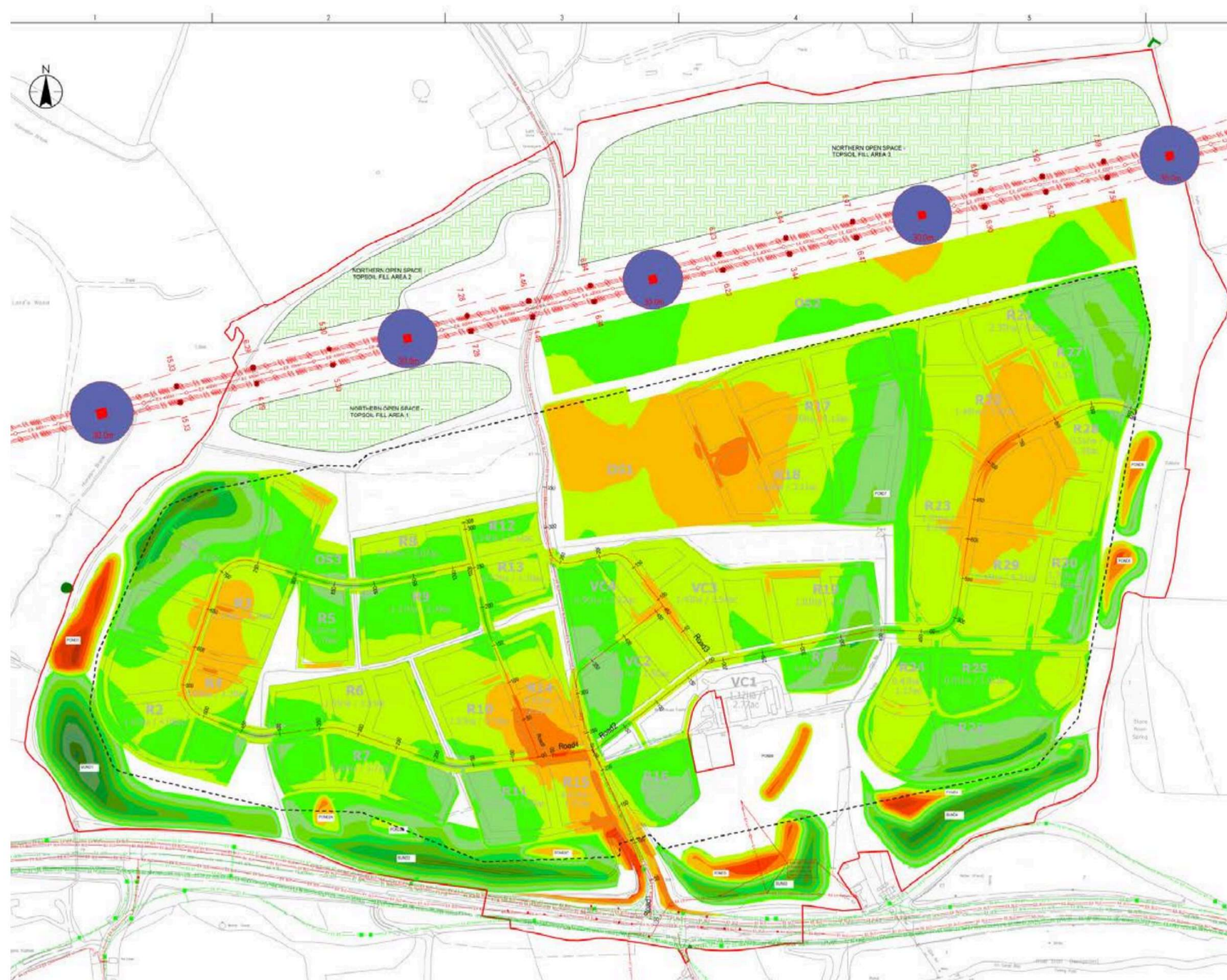


Figure 138 Earthworks Strategy Plan

SURFACE LEVEL DATA			
No.	MIN. LEVEL	MAX. LEVEL	COLOUR
1	-6.00	-5.00	
2	-5.00	-4.00	
3	-4.00	-3.00	
4	-3.00	-2.00	
5	-2.00	-1.00	
6	-1.00	0.00	
7	0.00	1.00	
8	1.00	2.00	
9	2.00	3.00	
10	3.00	4.00	
11	4.00	5.00	
12	5.00	6.00	
13	6.00	7.00	
14	7.00	8.00	
15	8.00	9.00	
16	9.00	10.00	
17	10.00	11.00	
18	11.00	12.00	



Sustainable Drainage System (SuDS)

The Site needs to accommodate various SuDS features to meet the on plot attenuation requirement, treatment and interception requirements and to reduce reliance on piped systems. Where space allows swales and ditches will be employed, but these features tend to be space hungry.

Where available area is limited, rain gardens will be used in lieu of swales, these tend not to have the sloped sides,



Dry Swale



Rain Garden / Bioretention System

which makes them more efficient in tight spaces.

Where free area is even more constrained sub surface sumps or reservoirs could be used below trees

Refer to document '*Scheme for Buffers to Existing Waterways and Strategic Green Corridors*' which sets out further principles in relation to watercourse buffers.



Wet Swale



Permeable Paving

Design principles:

- SuDS **must** be designed, as a minimum, in accordance with the CIRIA document 'The SuDS Manual (C753)'.
- SuDS features **must** be designed to contribute to habitat creation, enhance biodiversity and include native species planting.
- SuDS **must** be designed to create and support amenity uses which are promoted within the Village 7 Masterplan.
- SuDS **must** comprise a variety of features and treatment types, with a treatment train designed in accordance with, as a minimum, the SuDS Manual Simple Index Approach.
- Features **must** be designed to require minimum maintenance. SuDS features with side slopes **must** not exceed a gradient of 1:3, unless retaining structures are considered appropriate.
- Banks of dry and wet swales **must** not exceed a maximum gradient of a 1:3 slope. This allows for the banks to be seeded and plug planted with wildflower mixes.
- Drainage feature profiles and ground contouring **must** respond to the existing contours and reflect the shape of with stepped profiles/shelves to allow safe access and egress.
- Green open spaces **must** be designed such that any overland flow will be safely routed through the site or positively drained to land drainage attenuation features.
- A stepped profile **must** be provided within dry and wet swales to allow for planting of emergent vegetation to maximise biodiversity.
- The sides of the swales **must** be seeded using a meadow mix for wetlands, whilst the swale basin where it will be wettest, **must** use a pond edge mixture.
- Within wetter areas around wet swales, the planting palette **must** respond by specifying suitable species of native, non-invasive marginal and aquatic plants.
- The choice of plants **must** be selected to provide 'all year round' wildlife value for native flora and fauna.
- Enhanced tree pit systems incorporating SuDS attenuation and interception **should** be encouraged
- Utilitarian features **must** be avoided. Where possible soften appearance of headwalls and handrails, subject to adopting authority requirements.
- A variety of features **must** be used and these must reflect the aesthetics of the area in which they are located e.g. urban areas to include permeable paving, rain gardens/ bioretention areas.
- Buffers to ordinary watercourses **must** be considered in line with condition 12 and 32 requirements.



Pond edge wildflower mix



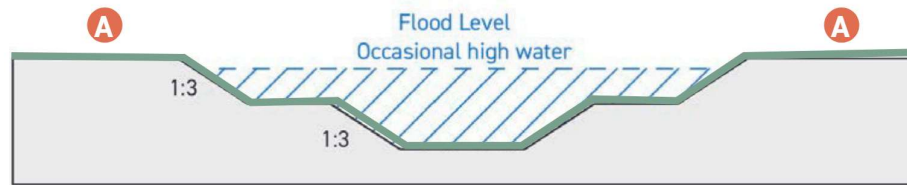
Meadow mix for wetlands



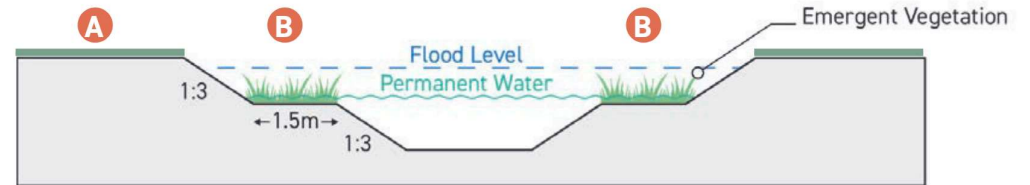
Lythrum salicaria



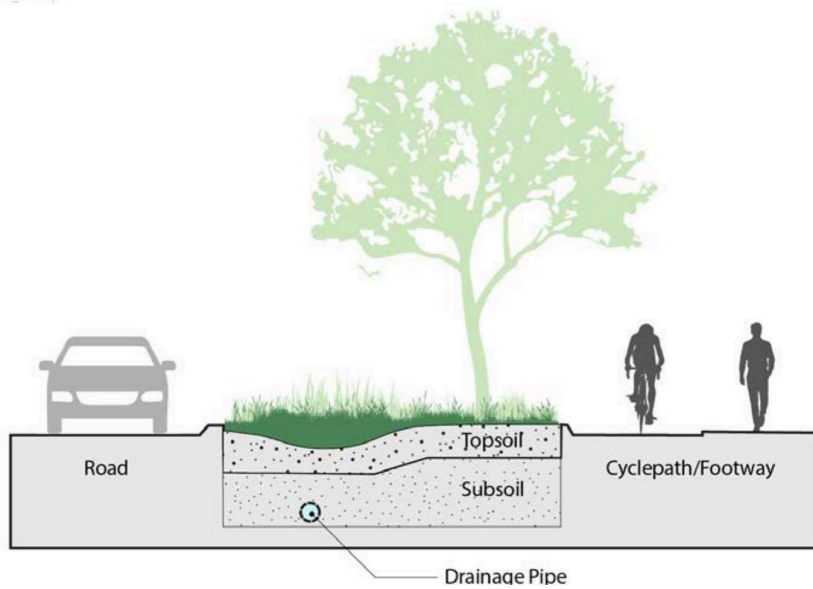
Mentha aquatica



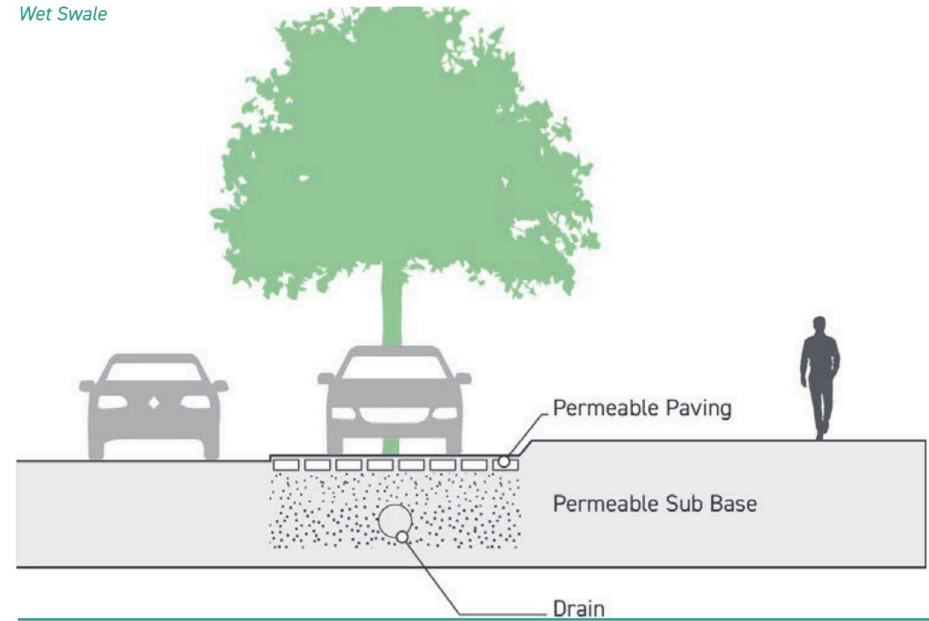
Dry Swale



Wet Swale



Rain Garden / Bioretention System



Permeable Paving

Indicative species : Rain Gardens

Rain garden planting palettes will contain species and varieties that tolerate both dry and occasionally wet conditions.

Native and native-inspired varieties will be predominantly selected to blend with existing vegetation on the Site.

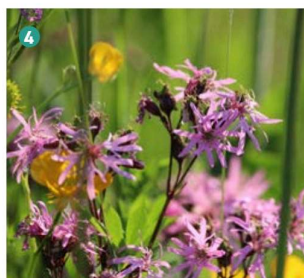
Plant selection should have wildlife benefits.

- 1 Bistorta amplexicaulis 'Blackfield'
- 2 Stipa lessingiana
- 3 Geranium 'Rozanne'
- 4 Hydrangea quercifolia 'Snow Queen'
- 5 Eutrochium maculatum 'Purple Bush'
- 6 Lythrum virgatum 'Dropmore Purple'
- 7 Calamagrostis x acutiflora 'Karl Foerster'
- 8 Iris 'Tropic Night'
- 9 Cornus sanguinea 'Midwinter Fire'



Indicative species : Swales

Wetland meadow mixes will be used in conjunction with native marginal planting which will be planted at the swale basin where it is wettest.



- 1 Primula veris
- 2 Persicaria amphibia
- 3 Native marginal planting
- 4 Eupatorium cannabinum
- 5 Iris pseudacorus
- 6 Wetland meadow
- 7 Lychnis flos-cuculi
- 8 Butomus umbellatus
- 9 Sanguisorba officinalis



Details of **Wayfinding** on page 292
 Details of the **Junctions** on page 321
 Details of the **Gateways** on page 350

Gateways

Gateways can be physical or symbolic thresholds that mark transitions within or between landscapes - where one type of space, experience, or identity gives way to another. They serve both functional and aesthetic purposes and play key roles in how people perceive, move through, and emotionally connect with landscape. At Village 7 a total of 6 key gateways has been identified, based on movement, transition and important locations within. These gateways have a clear hierarchy based on key movements.

Southern, Northern, and Eastern Gateways

The Southern, Northern and Eastern gateways service the primary vehicular routes into Village 7. It is integral that the multi-modal infrastructure is balanced with meaningful landscape design and provides a transition that is formal, yet of human scale.

Tall, statement trees should be used to create the sense of formality and mark the transition between the space, defining the threshold.

Brickhouse Farm Walk Gateway, Brickhouse Park Gateway and Kings Walk Gateway

The slower pace of access through these gateways allows the opportunity for public art; for places to meet, pause and sit, and creating a sense of place unique to the landscape context.

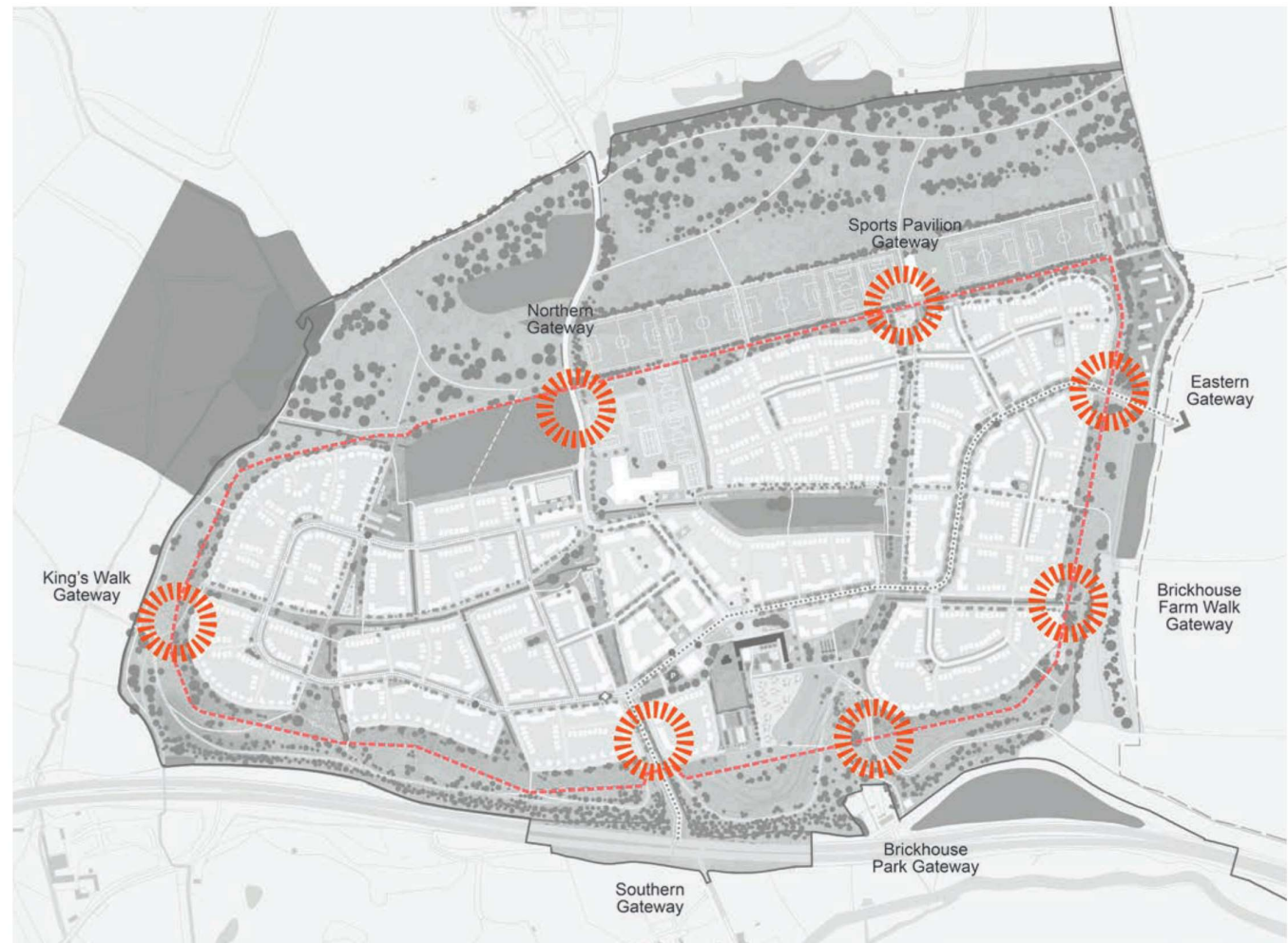
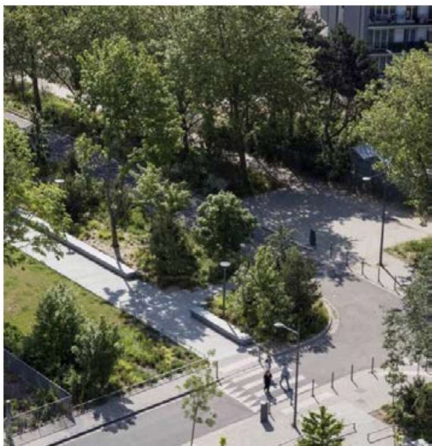


Figure 139 Gateways plan



Landscape-led infrastructure



Lighting design



Public art on pedestrian/cycle gateways



High-quality planting design and hard landscape materials

Design principles:



- All Gateways **must** mark transitions clearly through the use of feature trees, enhanced planting design, and material change.
- Existing trees and hedgerows **must** be retained, as much as possible, to enhance the green character of the space.
- Clear-stems on new trees **must** be used for visibility from users of carriageways and cycle paths.
- Wayfinding **must** take precedence within Gateway areas to aid legibility through the Site.
- Lighting **must** be used at all gateways in conjunction with the Lighting Strategy design principles.
- Gateways **must** be used to highlight key landmarks, vistas, or natural features to either frame or reveal views.
- Durable materials suited to local climate, aesthetic and use patterns **must** be used.

Best practice:



- Public art or storytelling elements **should** be integrated to deepen cultural resonance, in particular at the pedestrian/cycle gateways.
- Gathering or interpretive spaces that welcome community interaction **should** be considered at the pedestrian/cycle gateways.
- Gateways **should** reflect local culture, materials, vegetation, and craftsmanship.

Street Tree Strategy

Tree Palette

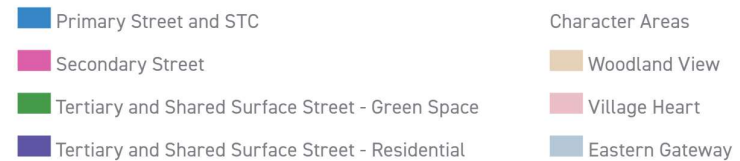
Trees must be included in soft verges in all streets to ensure a good environment for establishment and to enable trees to grow to their potential full size and longevity.

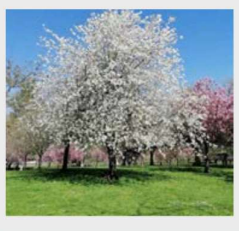
Where possible, street trees will link with SuDS features, either in the form of swales or, where space is at a premium, in the form of sub surface reservoirs. Where swales are used, they will either take the form of rain gardens or open ditches dependent on the spatial constraints.

The street tree planting seeks to achieve an overall canopy cover 10 years after establishment of 25-30%, in line with other best practice examples.

Street trees have been selected to reinforce the scale, reflect the character and highlight the street hierarchy throughout Village 7. The street strategy will also aid in wayfinding and create seasonal interest.

Species have been selected based on suitability for the local lime-rich loamy and clayey soils and with reference to published report 'Place & Movement Planning and Design Guidance for Hertfordshire Part 4' by Hertfordshire County Council Highways and Growth & Environment.



PRIMARY STREET and STC							
	Acer platanoides	Carpinus betulus 'Lucas'*	Liriodendron tulipifera	Liquidambar styraciflua 'Lane Roberts'*	Platanus orientalis 'Digitata'	Ulmus 'Rebona'*	Zelkova serrata 'Green Vase'*
SECONDARY STREET							
	Acer campestre 'Streetwise'*	Ginkgo biloba	Liquidambar styraciflua 'Lane Roberts'*	Magnolia kobus	Malus trilobata	Tilia cordata 'Rancho'*	Zelkova serrata 'Green Vase'*
TERTIARY & SHARED SURFACE STREET - GREEN SPACE							
	Acer campestre	Betula utilis 'Snow Queen'	Cornus mas	Crataegus monogyna 'Stricta'	Gleditsia triacanthos 'Sunburst'	Ilex castaneifolia	Malus baccata 'Street Parade'
TERTIARY & SHARED SURFACE STREET - RESIDENTIAL							
	Acer campestre 'Louisa Red Shine'	Carpinus betulus 'Frans Fontaine'	Morus alba 'Fruitless'	Pyrus calleryana 'Chanticleer'	Pyrus calleryana 'Redspire'	Sorbus aria 'Magnifica'	Sorbus commixta 'Embley'
* - Trees suitable for SuDS, rain gardens and bio-retention areas within streets							

Details of the **Primary Street** on page 306
 Details of the **Secondary Street** on page 310
 Details of the **Tertiary Street** on page 312
 Details of the **Shared Surface Street** on page 314

Planting Parameters

Primary Street and STC

The typical street planting section has been developed alongside the highway/ parking/ circulation and SuDS strategies.

Primary streets and the STC must incorporate large trees species on both sides of the street, either as facing trees or on alternate sides using preferably semi-mature stock.

Min planted size; 20-22cm girth



Secondary Street

In secondary streets, street trees will be on one side only or alternate sides, and they may be interspersed with blocks of parking bays.

Min planted size; 18-20cm girth

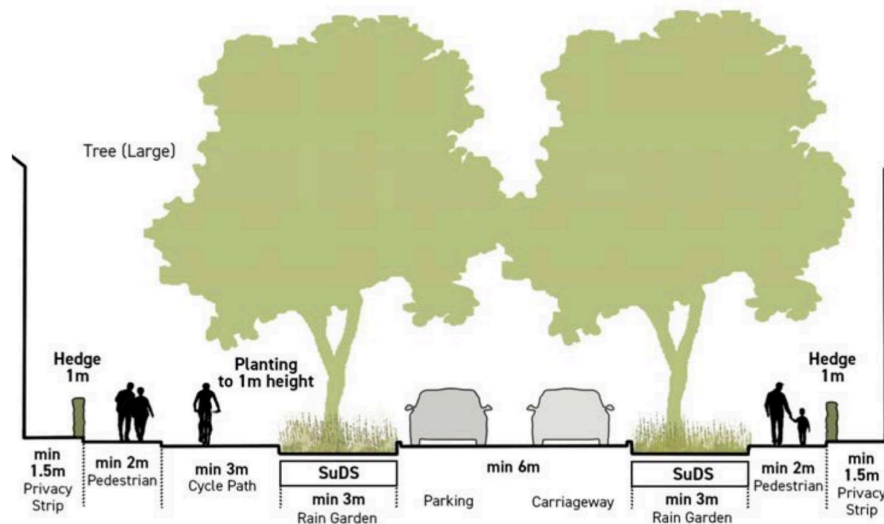


Figure 141 Primary Street and STC typical section

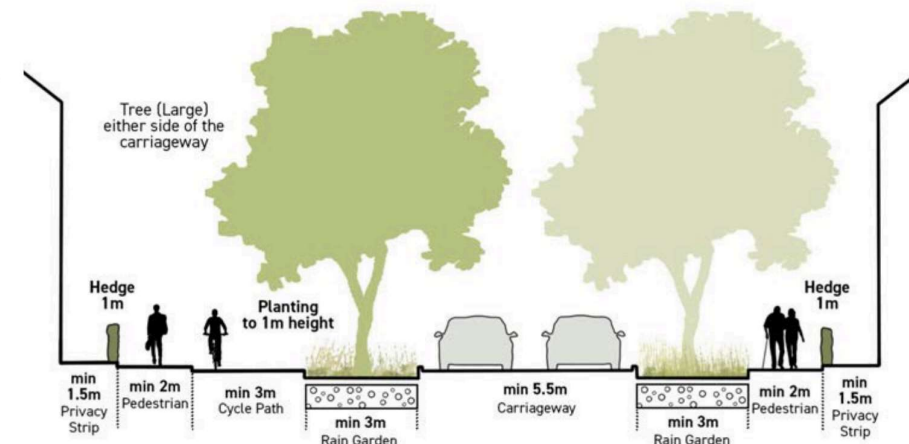


Figure 142 Secondary Street typical section

Tertiary Streets - Residential and Green Space

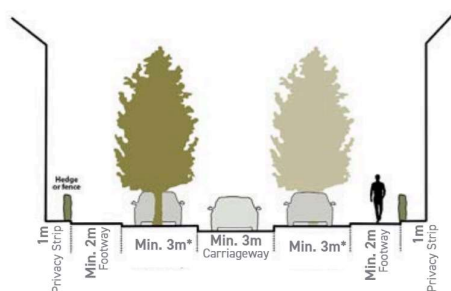
In tertiary streets along green spaces, street trees will be on one side only or alternate sides, and they may be interspersed with blocks of parking bays.

Min planted size; 16-18cm girth

Shared Surface Streets - Residential and Green Space

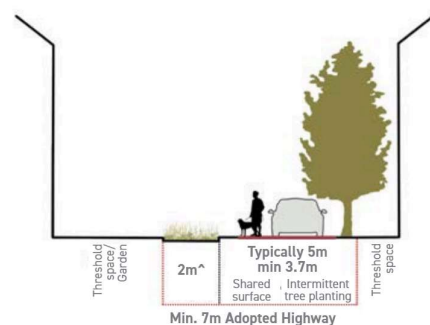
In shared streets along green spaces, street trees will be on one side only within the green space. In shared streets - residential trees will be on one side or alternate sides, and they may be interspersed with blocks of parking bays.

Min planted size; 16-18cm girth



*Planting and/or car parking with Rain Garden or Permeable Paving

Figure 143 Tertiary Street typical section



^Soft or hard landscape strip for utilities

Figure 144 Shared Surface Street section

Design principles:

- Streets **must** be designed and coordinated to incorporate street trees within all street typologies.
- All street trees **must** have a 2.5m clear stem to keep canopies out of visibility splays.
- Trees **must** be planted at a maximum of 20m centres ensuring that canopies provide shade to footpaths in summer.
- All tree pits **must** be large enough for a minimum 15m³ of soil per tree, maximising available soil for roots.
- Highways layout **must** be designed and coordinated to include street trees. Trees **must** be accommodated along at least one side of the highway. Street trees **must** be planted at least 6m from building frontages for large, long-lived tree species and 3m from building frontages for small species. Any tree pits within 6m of building foundations and below ground services **must** include a root protection barrier.
- Trees **must** be selected so their height and form do not cause conflict with the highway requirements.
- A variety of tree species **must** be selected to provide seasonal interest and are resilient to climate change and urban conditions.
- Where rain gardens/swales are used they **must** be planted with an ecologically rich mix of plants, providing valuable wildlife habitat.
- A minimum 1 metre privacy strip **must** be provided between the street edge and the front of properties.
- Tree variety selection **must** consider mature height and spread, growing conditions, root volume allowance, and maintenance requirements for optimal performance. Tree pit detailing **must** be provided appropriate to its location to ensure healthy and thriving street trees.
- Trees in shared surface streets **must** use underground tree crating systems, where verges are inadequate.
- Trees in the vicinity of residential plots **must** have low water demands.

Best practice:

- Front gardens **should** include shrub planting
- 25-30% canopy cover **should** be achieved from new tree planting (after 10 years of establishment)
- Tree pit details **should** be provided for each circumstance for optimal tree growing conditions. Specification **should** include adequate soil volume for successful root allowance. This can include tree trenches and root cell systems for beneath surfacing. Root barrier must be used to protect underground utilities and foundations.

Hard Landscape Materials Strategy: Active Travel Routes

The hard landscape materials strategy is limited to carriages, pedestrian & cycle commuter routes, pedestrian & cycle leisure routes, pedestrian leisure routes and informal paths. This section provides an indicative palette of materials that may be used for the following routes:

Commuter Route

Pedestrian & Cycle

Materials must be:

- Smooth, sealed surface
- Colour of the cycle routes must provide a high visual contrast to that of the pedestrian routes

Leisure Route

Pedestrian & Cycle

Materials must be:

- Smooth, sealed surface in areas of higher usage.
- Non-sealed surfaces may be acceptable subject to expected number of users (e.g. self binding gravel)

Pedestrian

Materials must be:

- Sealed surfaces in areas of higher footfall.
- Non-sealed surfaces may be acceptable subject to expected number of uses (e.g. self binding gravel)

Informal Route

Pedestrian

These routes are not shown on Hard Landscape Materials Strategy Diagram. These routes may be introduced through the public open space during detailed design stages.

Materials may range from gravel to mown grass. See example palette.

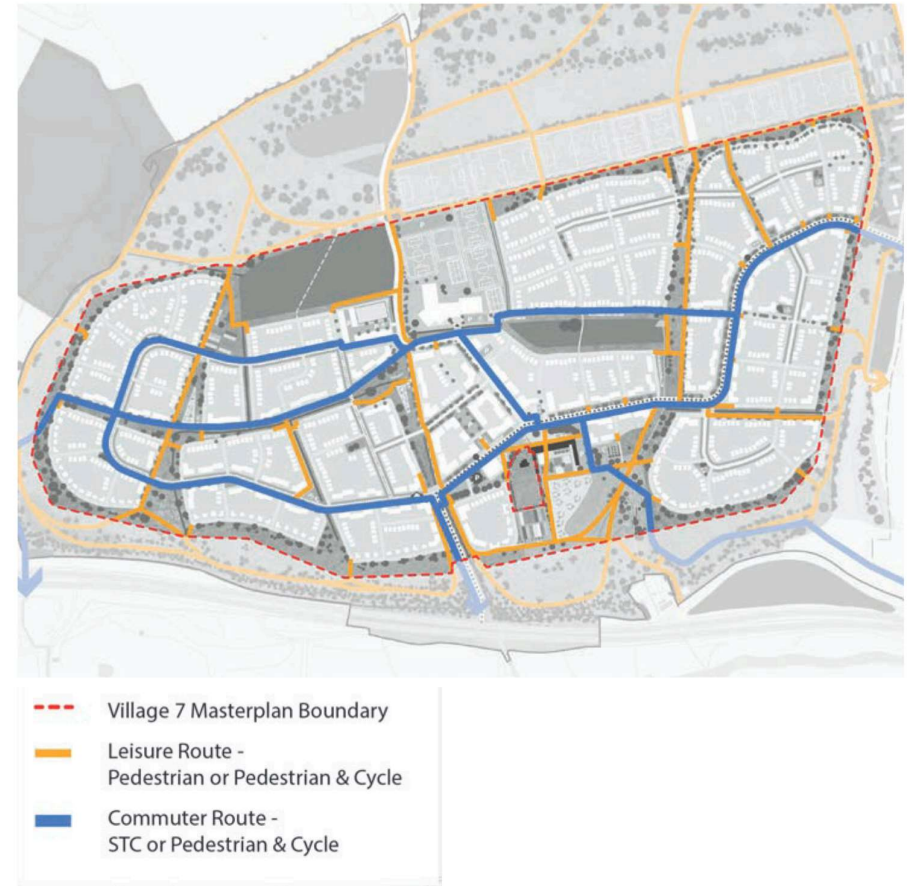
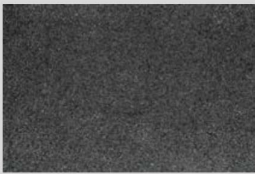
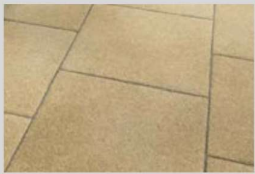
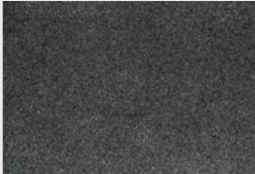


Figure 145 Hard Landscape Materials Strategy Diagram for Active Travel Routes

COMMUTER ROUTE						
	Hot rolled asphalt or bitmac	Hot rolled asphalt with contrasting coated chippings	Cycle track demarcation or splay kerb	Colour contrast bitmac to cycle lane	Block Paving	Concrete flag - Footways only
LEISURE ROUTE						 Design principles: - Materials must follow those set out in this strategy. - In shared environments, guidance paving shall determine traffic-free walking routes and tactile hazard warning pavings must indicate the extent of shared surfaces. - Materials must have coherence across the V7 development boundary into SLMP to ensure consistency.
	Coloured bitmac	Exposed aggregate in-situ concrete - Flood zones	Block paving	Concrete flag - Footways only	Brick pavers	
						
	Hot rolled asphalt with contrasting coated chippings	Spray tar & chipping	Self-binding gravel / Hoggin	Resin-bound gravel	Resin-bonded/Porous surfacing	
INFORMAL (not marked on plan)						 Best practice: Consideration should be given to local environmental impact of hard landscape, including: - Use of low-carbon materials should be considered where appropriate - Use of porous materials where appropriate to limit surface water runoff - Whole life cycle environmental impact of materials
	Gravel	Self-binding gravel / Hoggin	Wood chip	Mown grass	Wooden walkways	
CARRIAGEWAYS (not marked on plan)						
	Hot rolled asphalt or bitmac	Block Paving				

Enhanced Surface Materials Strategy

Consistent use of public realm material palettes will create a coherent townscape character throughout Village 7. This uniformity in materials and their application will aid wayfinding, minimise visual clutter, and provide a unified identity for the development.

Key public spaces and streets, including the Village Centre public realm, the green corridor edge streets, and their crossings, will benefit from enhanced material treatments to help define these important areas, as shown in the adjacent diagram.

The use of enhanced materials in key areas not only lends these spaces distinct character but also balances material costs. Additionally, changes in material treatment help create a sense of transition for users.



- Village Centre public realm (not including STC and primary roads)
- Tertiary Street/ Shared Surface Street - Green Edge
- Green Corridor crossings

Figure 146 Enhanced surface materials strategy diagram

Village Centre				
	Brick/Block paving for key nodes along carriageway to BS 6717/BS7533 or BS 3921	Textured/ contrast pedestrian crossing	Textured kerb	Granite setts rows for decorative transition (Complying with BS EN 435)
				
	High quality paving blocks for key public realm nodes	Designed pattern paving	Thematic Bespoke Paving	Enhanced treatment for tree in hardscape
Tertiary Street/ Shared Surface Street - Green Edge				
	Brick/Block paving for carriageways	Enhanced parking area	Granite setts rows for decorative transition (Complying with BS EN 435)	
Green Corridor Crossings				
	Brick/Block paving for carriageways to BS 6717/BS7533 or BS 3921	Textured/ contrast pedestrian crossing	Resin bound gravel for foot and cycleway with textured kerb	Granite setts rows for decorative transition (Complying with BS EN 435)

Design principles:

The use of enhanced materials for paving and edging in the public realm **must** be used wherever practicable in the following areas:

- Tertiary streets / Shared Surface streets which are adjacent to green edges;
- Streets which run adjacent to key spaces;
- Key public realm nodes;
- Streets which cross green corridors; and
- Public realm adjacent to the school and Brickhouse Farm.
- Crossing points within the Village Centre and Green Corridors **must** provide clear visual dominance for users of the open space/public realm.

Design **must** consider Place & Movement Planning and Design: Guidance for Hertfordshire Part 4 and SLMP Hard Landscape Material Palette.

Best practice:

- High quality permeable paving block/ bricks **should** be use in key public realm nodes.
- Good quality brick and block paving blocks of a colour range **should** be selected to complement the building material palette
- In areas with high traffic volumes block paving may be replaced with imprinted concrete

Street Furniture Strategy

Street furniture must contribute to the character of the public realm. Furniture will be designed into all formal public open spaces. This furniture should be of high quality to enhance the civic identity of the public realm.

There should be a consistent use of material palettes for street furniture to create a coherent townscape character; this should respond to the brand guidelines of the Gilston Area if and when they become available.

Street furniture includes but not limited to:

- Seating
- Litter bins and recycling bins
- Dog waste bins
- Cycle stands
- E-scooter stands
- Bollards
- Fencing

Street furniture in particular at Brickhouse Square and Brickhouse Park should be developed with the aesthetics and materials that would be complementary with emerging strategies for art, marketing and community engagement.

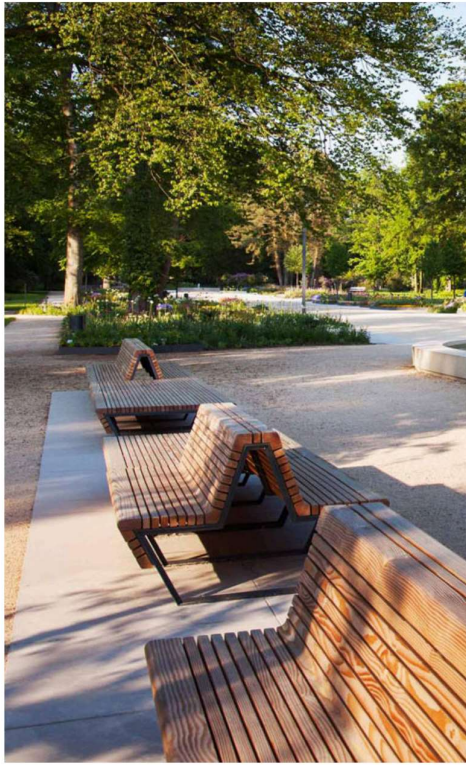
Design principles:

- All park spaces **must** include benches with backs and arm rests, cycle parking and waste bins.
- On pedestrian routes through green corridors seating **must** be located alongside, but not within, footpaths and be clearly identifiable against their surroundings.
- Cycle stands **must** be located in the main areas of the Village Centre and at nodal points within the Green Corridors.
- Cycle stands **must** include provision for cycles with wagons and cargo bikes.
- Furniture fixings **must** be stainless steel and anti-tamper to minimise opportunities for vandalism.
- FSC sustainably sourced timber with a minimum 30 year lifespan **must** be used.
- Cycle stands **must** be of simple 'Sheffield' type design to allow locking of wheels and frame.
- Cycle stands **must** be carefully located to be readily visible and accessible, but out of pedestrian routes to avoid trip hazards and reduce instances of obstructions and 'stamping' of wheels.
- Bins **must** be sized to reflect the anticipated level of use and frequency of collection. Bins for recycling **must** be provided in line with EHDC recycling collection policy.
- Segregated recycling bins **must** be provided at busy locations within the Village Centre and at all bus stops.
- Where appropriate, seating areas **must** allow a wheelchair user or scooter user to sit alongside those using benches.
- Dog waste bins **must** be provided at appropriate locations along pedestrian routes within open spaces.

- In the interest of the long-term quality of townscape and sustainable use of resources, all wayfinding and interpretation material **must** be selected for its durability and functionality as well as appearance. Particular emphasis **must** be placed on ensuring: robustness, ease of maintenance and replacement, and long design life (to reduce the embodied energy over the full lifespan).

Best practice:

- On pedestrian routes through green corridors, benches or 'places to perch' **should** be provided every 50m.
- Where appropriate, low level seating **should** be provided for children and people of short stature.
- Provision for e-scooter parking **should** be allowed, to avoid clutter.



Benches with and without backrests to cater for a wide user group



Integrating lighting with bollards in low lighting areas



Outdoor dining opportunities will help animate key public spaces



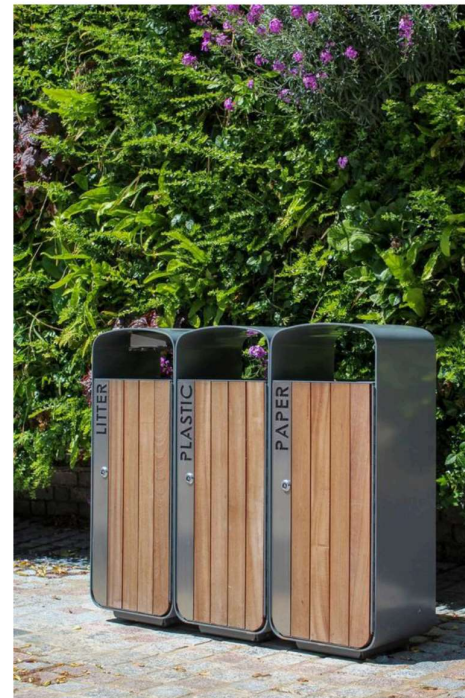
Playful social seating in high footfall areas



Different types of benches using same material palette to reflect the character of the area



'Sheffield' type cycle stands for easy locking



Segregated recycling bins within the Village Centre and Neighbourhood Park



Designated e-scooter parking to avoid clutter



Well considered safety bollards in-keeping with the material palette of the area



Fences allowing integration of wayfinding and legibility

Boundary Treatments

Use of boundary treatments in the public realm

There should be a well-considered and discreet design approach to boundary treatments to integrate into the new landscape surroundings

Physical boundaries should not be implemented unless there are security and safety concerns that need to be addressed. Examples would include:

- Fencing to the school
- Walls and railings to provide protection from falling
- Temporary fencing to protect new planting i.e. such as chestnut paling
- Boundary treatments to indicate areas of play. These can include landform, planting or multi-functioning hardworks features
- Protecting community allotments and growing spaces. Orchards could use planted boundaries to encourage foraging and to link with existing hedgerows.

Design principles:

- Boundary treatments **must** have visual permeability and made to integrate with the surrounding area. Take in to consideration the arrangement, scale, colour, and materiality of the treatment.
- Wildlife movement **must** not be inhibited by the choice of boundary.

Best practice:

- Boundary treatments **should** take inspiration from the discreet and practical typologies found in the surrounding rural environment.
- Self-finishing and robust materiality **should** be taken in to consideration.
- Material choice **should** align with the design aesthetic of space.
- Materials that are already typical of the local vernacular **should** be considered.
- Where retaining walls/features are designed in combination with fencing, these **should** be designed as a cohesive feature and be of a comfortable human scale.

- Boundary treatments **should** be long lasting and require minimal maintenance to reduce costs, should these be managed by the Stewardship body.
- Retaining walls **should** be placed within planting to soften their presence within the scheme.
- Retaining walls **should** be designed as a multi-functional item that can doubled up as habitat enhancement or seating.

School Fencing

School fencing must meet functional requirements and the latest relevant standards and guidance.

Boundary selection should be sensitive to the surrounding landscape design and be unobtrusive.

Designers are encouraged to consider using vertical greening and high quality fencing in colourways or materials that suit the nearby landscape design.

Opportunity to integrate public art to provide community ownership through the boundary treatment.



Plant trellis to integrate fencing into the surrounding landscape



High quality natural material as fencing treatments



Integrated public art to fencing creating a sense of community ownership

Retaining Walls

Retaining walls may be required as a consequence of the undulating topography of the Site.

Design principles:

- Consideration **must** be given to sight-lines and to make sure they do not create obstructions to walkways within open space.

Best practice:

- Retaining walls **should** be used as a positive practical design feature within the scheme and can become a multi-functional item that could double up as habitat enhancements or seating.
- Careful thought **should** be considered to materials to complement the surrounding character
- Retaining walls **should** be integrated with planting areas to soften their overall effect on the scheme.
- Where retaining walls/features are delivered in combination with fencing, they **should** be designed as a cohesive feature and are of a comfortable human scale.



Retaining walls following the form of topography



Integrated seating with retaining features



Sensitive design reflective of the surrounding

Private/Public Boundary

The boundary treatments within the residential areas of Village 7 create distinct separation between public and private realm.

For areas that are characterised by a more informal and rural aesthetic. Hedges or timber post and rail fencing are to be used. This would suit areas near existing hedgerows and more sensitive edges near the ancient woodland.

For more urban areas, use a set back boundary with low wall or railings, or formal hedges.

For hedging, use varieties that offer seasonal interest, year round screening, and will not grow too large.



A formal hedge for more sensitive and wooded areas



Low brick wall and formal railings



Low wall and hedging , for a less formal boundary



Wayfinding Strategy

A wayfinding strategy must be developed in keeping with the Gilston Area branding guidelines as outlined within the SLMP.

All signage, wayfinding and interpretation should be designed in accordance with this guidance to create a coherent network and contribute to placemaking.

The proposed signage elements must follow a clearly defined hierarchy, defined by location.

Signage elements should contribute to the character of spaces.

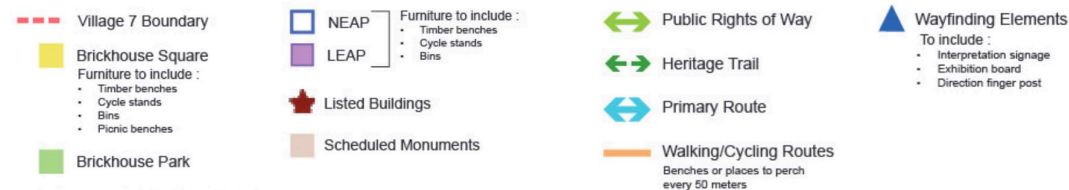
Signage should be so designed where possible and appropriate as to be accessible and legible to all, e.g. sans serif fonts, high-contrast colours, globally recognised iconography (toilets, information, wheelchair accessible), audio capabilities, interactive digital signage capabilities.

Wayfinding elements should be located at key nodes within the Site and at threshold junctions to aid legibility across the Site. Wayfinding elements should also indicate towards the Gilston Heritage Trail which lies within the SLMP area.

Heritage trail signage must ensure the construction of signage and interpretation does not negatively influence the heritage features.



Figure 147 Wayfinding Strategy





Entrance signage



Large font directional signage for drivers & cyclist



Trail interpretation signage



Trail marker post



Interactive interpretation installation



Instructional /warning signage post



Route map signage



Directional finger post



Educational interpretation boards



Tactile map /3D interactive sign boards

Design principles:

- At key junctions information totems **must** be provided, and will include: maps, wayfinding points and journey time and distances
- Signage for cycle routes **must** follow latest guidance, such as LTN1/20
- Wayfinding Signage **must** achieve a consistent and legible theme for all routes throughout village 7 and must align with any Gilston Area Signage Strategy
- All signage **must** be inclusive and cater for all users
- The signs **must** be clear, well designed and encourage people to explore
- Signage **must** consider Sports England's Active Design Guidance
- Signage **must** include distance markers, where appropriate, to encourage physical activity.
- In the interest of the long-term quality of townscape and sustainable use of resources, all wayfinding and interpretation material **must** be selected for its durability and functionality as well as appearance. Particular emphasis **must** be placed on ensuring: robustness, ease of maintenance and replacement, and long design life (to reduce the embodied energy over the full lifespan).

Best practice:

- Park spaces **should** have a designated map

Lighting Strategy

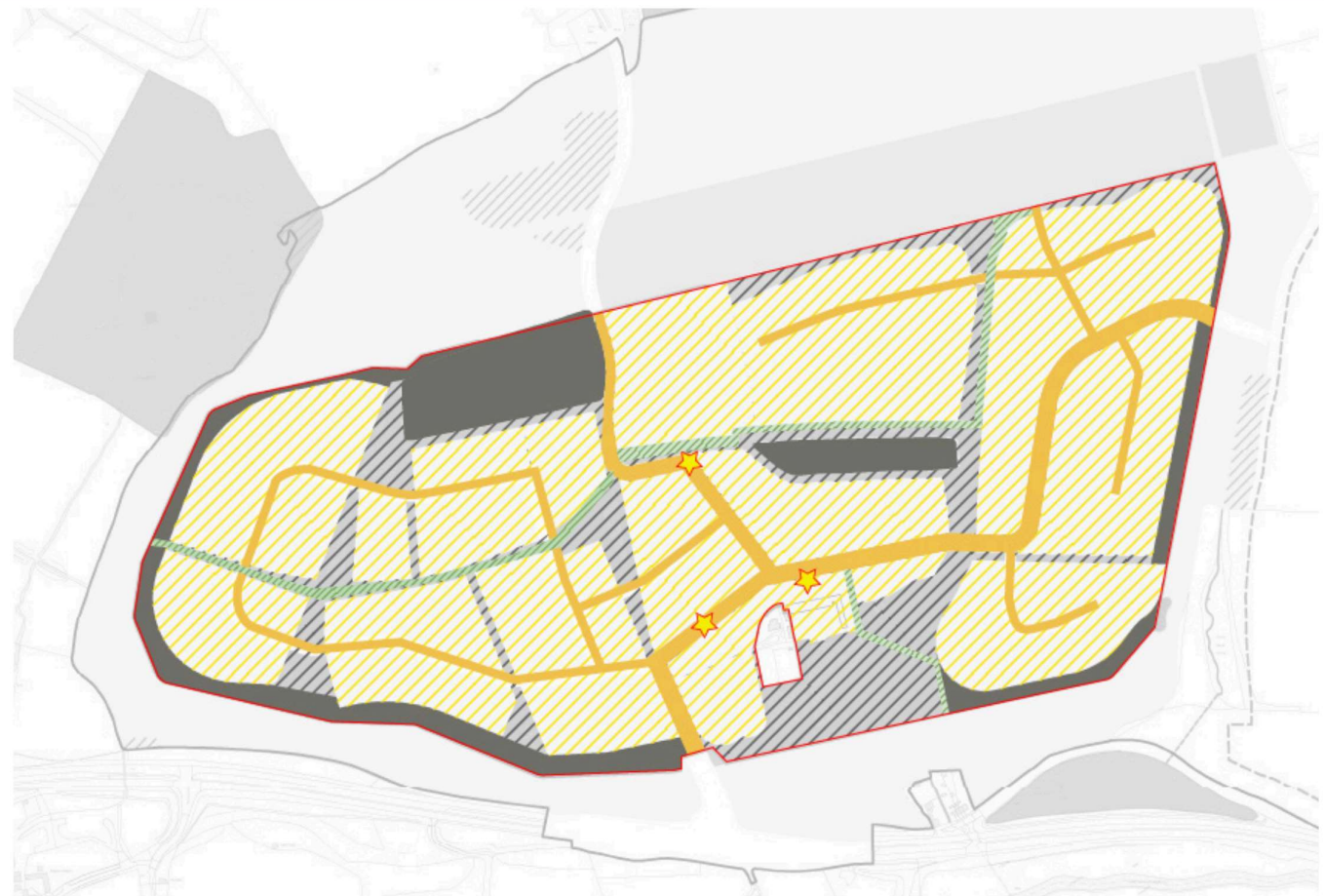
Publicly Lit Areas

This will include streets, recreation areas and other public spaces in accordance with the lighting design principles in the Development Specification and SLMP.

The provision and design of street lighting will be appropriate to its location and purpose. Street lighting will provide a safe environment for pedestrians but the level of lighting will be ecologically sensitive.

There will be a gradation in lighting intensity from the various built areas to green spaces within built areas and finally to periphery locations. This approach builds up a hierarchy of lighting treatments that aid in wayfinding.

Lighting within the village will be predominantly 3000K or less in colour temperature. Cooler colour temperatures will only be used for localised and contained instances. Warmer colour temperatures are recognised as resulting in less skyglow and being less disruptive to biodiversity.



Lighting strategy:

-  Area for Feature lighting
-  Full coverage lighting
-  Street lighting/architectural lighting
-  Full coverage lighting for movement routes through ecologically sensitive areas
-  Ecologically sensitive lighting
-  No illumination

Figure 148 Lighting Strategy

Design principles:



★ Feature lighting



- Distinctive feature lights **must** be included in key public spaces i.e. Brickhouse Farm and the approach to the Primary School, to aid with wayfinding and placemaking.
- Integrating light within street furniture or other features **must** be considered to reduce 'clutter' as well as associate lighting clearly with functional locations e.g. bus shelters, benches.
- Feature lighting in the vicinity of Brickhouse Farm within the SDA **must** be respectful to the existing heritage asset.

■ Full coverage lighting



- External and highways lighting **must** be managed such that intensities are set appropriate to the business and needs of the various areas with illuminance reduced during quieter hours.
- Street lighting **must** be minimal and sensitive to the darkness of the countryside and will therefore be designed to the lowest applicable lighting class.

▨ Street lighting/
architectural lighting



- Outside of primary routes and feature locations, lighting **must** be kept below or proportional to the eaves of surrounding buildings to ensure street lighting does not become a dominant feature within the development.
- Fixed external lighting **must** be fully cut-off meaning no directly emitted upward light. Uplighting of architectural features and signage shall be avoided.

▨ Full coverage lighting for routes through ecologically sensitive areas

▨ Ecologically sensitive lighting



- Within green corridors, routes **must** be illuminated from well controlled downward directed light. Acceptable levels of illuminance will be determined by the habitats and species present.
- Outside of key routes, green corridors **must** be unlit to protect habitats and species commuter routes.

Public Art Strategy

A Public Art Strategy (PAS) must be prepared, in accordance with the S.106 requirements, that sets out the vision, approach, and delivery guidance for Village 7. The PAS should demonstrate how Public Art and Culture will be used to enrich the development.

The PAS must define budgets, brief, the process of commissioning – invited or competitive, and work within the Planning framework. The PAS should create a programme for an engaged delivery of works of art. The PAS should work within the requirements of the planning obligations that require the delivery of art to be in-step with the construction of homes across the development. It is to be a timely, accountable, and open process of commissioning and delivery. It is to work within the agreed and fixed capital budget. Cultural events and works of Public Art are to be commissioned and funded within a defined plan.

Artworks should be focussed on being integrated in the public realm of the streets, the Village Centre, and in the public open spaces. Installations and events should be noticeable interventions in the public realm. They may also however make a quieter and discrete

occurrence. The PAS should make a visible and popular intervention, resulting in a body of works that belong to the place and is welcomed by the community over time. The aim is to make a relevant and quiet celebration of people and place.

The following themes should be considered and used when creating Public Art:

- Historic significance: Looking at the history of the Site and the surrounding area, including the Site's relationship with Henry VIII and the Tudor period.
- Agricultural/rural heritage of the area and wider community: Referencing this past in various forms, techniques, and mediums, teaching people how agriculture has changed through history.
- Natural materials and styles, using these to mark key meeting points and footpaths, exploring the potential use of growing art.
- Sustainability, energy and climate change focussing on minimising resource consumption and maximizing reuse and recycling.

Design principles:

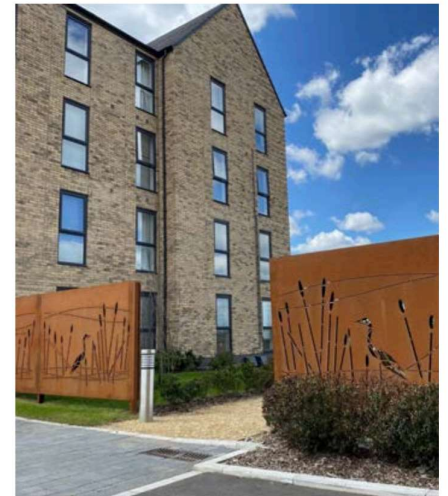
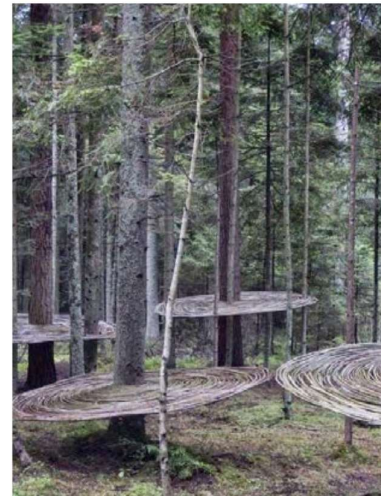
- The PAS **must** be consistent with the Approved Village Design Code in respect of Village 7.
- The Village 7 PAS **must** draw from and have regard to the Approved V1-6 Public Art Strategy (where applicable at the time of submission) so to ensure continuity between the Village 7 Development and the V1-6 Development.
- The PAS **must** include a cost plan for spending the V7 Public Art Contribution; include the types of Public Art that shall be commissioned; the process for commissioning artists, including local artists.
- It **must** focus on integrating Public Art into the Open Space, village centre and public realm.
- The PAS **must** be informed by and developed alongside engagement with the local community, to inform the design process.
- Public Art **must** promote the new development, celebrating local heritage, character and context.
- Public Art **must** explore a range of different opportunities, considering temporary, fixed and integrated artwork at all scales.

Best practice:

- The use of natural materials **should** be encouraged from the surrounding landscape.
- Locations and themes for artwork **should** be defined through collaboration with the project designers such as landscape architects, and wayfinding specialists
- Appropriate locations **should** be selected based on the anticipated use and frequency of activity, and sensitivity of existing features while celebrating site qualities.
- Proposals **should** explore potential for multi-functional and integrated features such as artwork which also acts as landmarks/meeting points, contributing to the wayfinding strategy, or artwork which is integrated into landscape elements such as boundary treatment, furniture, paving and lighting
- Opportunity to create a public art trail **should** be explored to complement the Harlow Sculpture Trail
- Diverse proposals **should** be used to reach various audiences, balancing stationary and transient experiences
- Artwork **should** be approached as an opportunity to engage with the existing and future communities of the area, both through the process of creation of permanent works and as an ongoing resource for the community



Details of the **Gateway** on [page 355](#)



Ecology Strategy

Gilston V7 will exceed regulatory and planning requirements by integrating wildlife enhancements throughout the Site.

Taylor Wimpey is committed to creating spaces for nature and wildlife within their developments as part of a wider target to increase natural habitats by 10% on new sites. Additionally, they have signed up to Future Homes Hub's *Homes for Nature* initiative which seeks to increase and enhance the delivery of on-site nature measures.

The proposed development has been designed to retain and protect the important ecological features within the Site, where possible, and to enhance them through appropriate management. These include the woodland and hedgerows. They are to be protected through the creation of buffers and the inclusion of the areas of newly created green open space areas, which will be naturalistic and sensitively managed for biodiversity and recreation.

Taylor Wimpey's *Guide to Green Infrastructure*, incorporates recommendations from the Wildlife Trust on how to use green infrastructure to benefit biodiversity, create a strong sense of place, support water management and reduce flood risk.

Taylor Wimpey Wildlife Enhancement Targets

BIRD BOXES
equivalent to



BUG HOTELS
equivalent to



BAT BOXES
equivalent to



BEE BRICKS
equivalent to



HEDGEHOG HIGHWAYS
throughout the scheme



POLLINATOR-FRIENDLY
planting and highways



Design principles:

- 10% BNG target **must** be delivered as a minimum.
- Wildlife enhancements **must** be created across the Site, in line with Taylor Wimpey targets, including bird boxes, bug hotels, bat boxes, bee bricks, hedgehog highways and pollinator-friendly planting and pathways.
- A network of green corridors and spaces **must** be created across the Site to connect habitats.
- A 5m buffer **must** be provided either side of existing hedgerows to ensure they are not damaged and that species are not disturbed by future development.
- Gaps within hedgerows **must** be in-filled with native species.
- New tree planting **must** be provided within green corridors.

Best practice:

- Fruit and nut bearing species **should** be included to provide foraging opportunities.
- Planting **should** include species of benefit to pollinators and be climate change resistant. There should be a range of species that flower across the year.
- Bee hives **should** be provided in appropriate locations within landscape away from public footpaths
- Wildlife links **should** incorporate log piles and hibernacula for amphibians, reptiles, small mammals and invertebrates in sheltered areas.

Proposed Habitat Improvements

Wetland and Damp Grassland

The site-wide SuDS infrastructure will establish areas of wet grassland which provide temporary wetland habitats and improve the environmental quality of the existing wider watercourses.



Open Grassland

Where open areas of grass is proposed, they will be seeded with species rich grass and wildflower mixes. This will provide an improvement upon the existing monoculture of crops and enhance biodiversity.



Woodland and Tree Planting

Existing trees and copses will be retained and enhanced with additional tree planting along green corridors to link up strategic commuter routes and habitats through the Site.





1.6 Sustainable Movement

Street Hierarchy

Following the framework strategy set out in Chapter 6 and in accordance with the parameters of the outline planning permission, the Street Hierarchy Plan opposite sets out the proposed street alignment and street hierarchy. This is governed by the following underlying principles:

- Primary streets are strategic streets that connect with the three vehicular access points of the Site. They handle through traffic and can accommodate bus routes. The two primary streets of Village 7 meet at Brickhouse Square;
- Secondary streets are distributors, linking neighbourhoods to the primary streets while at the same time picking up traffic from subordinate streets. Where required some secondary streets will accommodate bus services;

Natural England Green Infrastructure (NE GI) Principles have been carefully considered to shape the identity and character of streets and spaces.

- Tertiary streets are residential streets that feed into streets of a higher order. They are designed for drivers to move slowly and give way to other users. They provide access to properties and shall only be through routes for active travel;
- Shared Surface Streets are the most intimate streets where vehicles are restricted to access only. They are through routes only for active travel. Some Shared Surface Streets will be Car-Free Streets with no general vehicular access; and
- Key Movement Nodes are where primary and secondary streets join or near key attractors. Here, streets open up to wider square-like places where traffic slows down to find its way.

“Streets should be treated as vibrant and active spaces in themselves, prioritising walking, cycling and public transport”

(point no.10 of the 10 SDG principles)

Design principles:

- Streets in the V7MP area **must** follow the street hierarchy and be designed as either Primary, Secondary, Tertiary or Shared Surface Streets.
- Key Movement Nodes **must** be located at key locations in Village 7.
- Primary and Secondary Streets **must** comply with the Street Hierarchy Plan in topology and number and in location (within 20m tolerance).

Best practice:

- Street network design **should** minimise the potential for rat-running via lower order streets
- The vehicular network **should** be organised in cells with connections to other cells being more direct by sustainable modes than by car through the use of modal filters
- Shared Surface Streets **should** not provide direct vehicle access onto Primary Streets
- Direct vehicle access onto Tertiary Streets from Primary Streets **should** be minimised



Street as a vibrant and active space where cycling and walking will have priority over cars.
Precedent: Marmalade Lane by Mole Architects

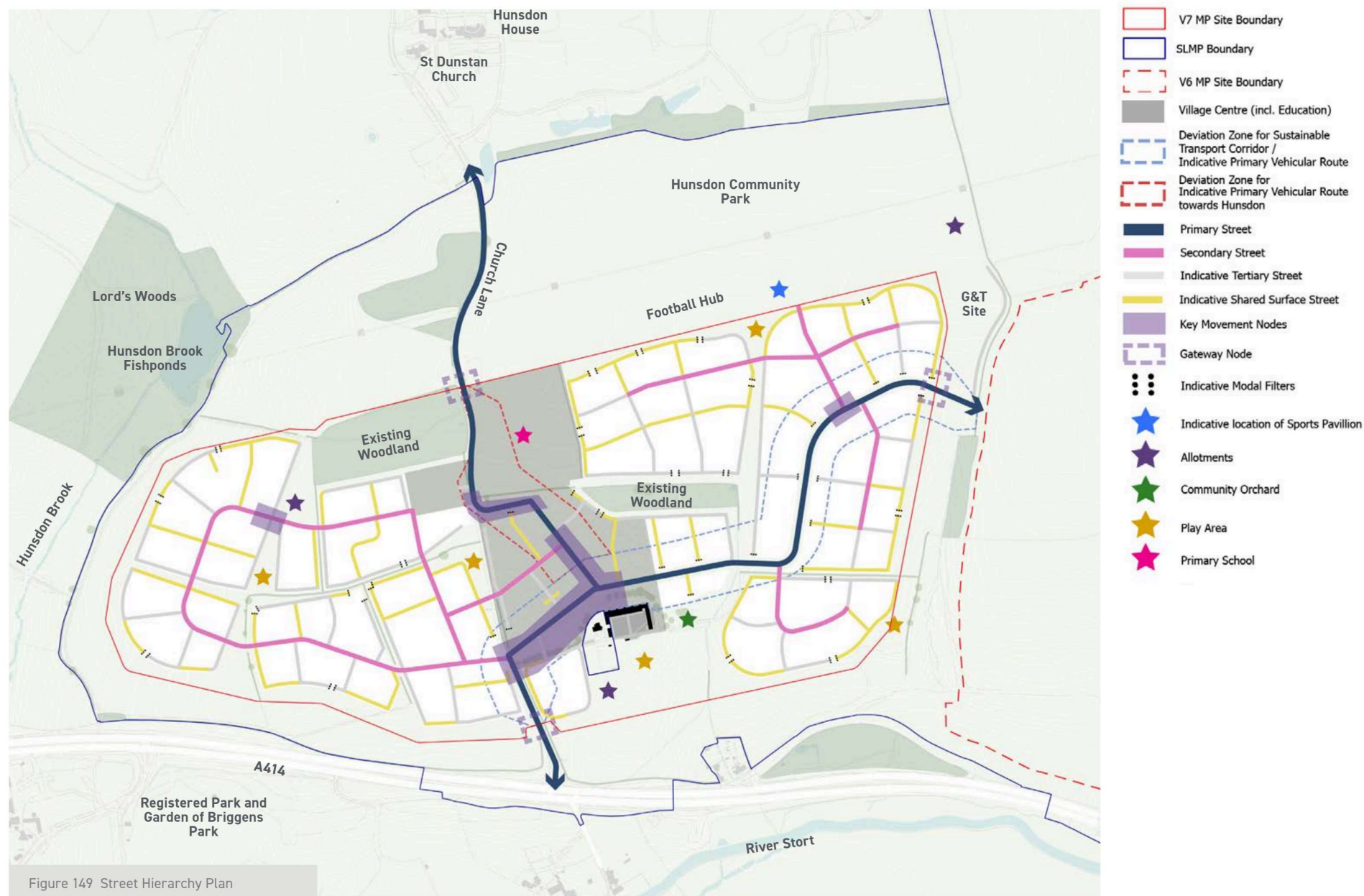


Figure 149 Street Hierarchy Plan

Characteristics

Parameters and Characteristics of Streets

The four street types described in the Street Hierarchy (primary, secondary, tertiary and shared surface) as well as the foot and cycle paths (henceforth to be called Active Travel Routes) of Village 7 all have specific characteristics which are summarised in the table below and laid out in detail over the subsequent pages. These set out the specifications for street design in Village 7 including design parameters, junction design, traffic calming, transport infrastructure and parking typologies for the various street types. The section codes adopted as well as unadopted highways. Segregated cycle lanes are to be provided on all Primary and some Secondary Streets as indicated on the Cycling Network Plan.

Tertiary and Shared Surface Streets will be designed to prioritise cycles over cars particularly through the use of modal filters, carriageway width and surface treatments. Access for all will be provided and promoted in Village 7. The streets, cycleways and footway in Village 7 must be designed to accommodate those with mobility impairment or provide satisfactory alternatives.

For considerations on street lighting, planting regimes and SuDS features please refer to Section 9.5, Landscape & Green Infrastructure, of the Design Code.

The street design coding is based on HCC's Place and Movement Planning and Design Guide (PMPDG) with minor adjustments made to reflect the unique context of Village 7. For all matters not covered in this Design Code, PMPDG is to be consulted. In addition, DfT's Guide on Inclusive Mobility and the Sports England Active Design Guidance should be consulted when detailing streets.



Precedent of a Primary Street (Source: Hornchurch High Street, Better Streets Delivered 2, TfL)



Precedent of a Secondary Street (Source: Newhall, Harlow, Google Maps)



Precedent of a Tertiary Street (Source: Goldsmith Street by Mikhail Riches)



Precedent of a Shared Surface Street (Source: Neil Crocker)



Precedent of an Active Travel Route (Source: Sustrans)

The street locations are as shown in the Street Hierarchy Plan, and the Cycle Network Plan. For planting palette, street trees, surface finishes, kerbs, street furniture, and lighting Section 9.5 is to be consulted. For junction spacing, junction radii, centreline radii, forward visibility and visibility splays VAMPS to be consulted.

Parameter	Primary Street	Secondary Street	Tertiary Street	Shared Surface Street	Active Travel Route
Design speed	20 mph	20 mph	10 mph	10 mph	-
Speed limit	30mph, 20mph outside school	20 mph	20 mph	20 mph	-
Total corridor width	Typically 19m	Typically 12.5 - 18.5m	Typically 9-15m	Typically 6-7m	Typically 7m (or 6m if car free)
Carriageway width	6.0m (min.)	5.5m (min.)	Typically 5.5m, min. 3m at pinch points	Typically 5m where trafficked, min. 3.7m where car-free, absolute pinch points min. 3m	-
Footway	Min. 2m wide, both sides	Min. 2m wide, both sides	min. 2m wide	None	Segregated: min. 2m clear width, shared path: min. 3m total width
Cycle lane/track	Bidirectional, min. 3m wide	Bidirectional, min. 3m wide (where present)	None (carriageway cycling)	None where carriageway cycling, min. 3m clear width cycle track on car-free streets with cycle commuter routes on active frontage	Segregated: min. 3m clear width, shared path: min. 3m total width
Tree pit/SuDS corridor	min. 3m wide	min. 3m wide	min. 2.5m wide	Context specific	-
Bus route	Yes	Supplemental STC only	No	No	No
Cycle parking	Sheffield stands in multi-use strips	Sheffield stands in multi-use strips	Sheffield stands in multi-use strips or in carriageway	Sheffield stands in carriageway	Sheffield stands in amenity strip
On-street parking	Bays in multi-use strips. No allocated parking.	In multi-use strip or in carriageway.	In multi-use strip or in carriageway.	In carriageway. None if car-free	No
Direct vehicular access to plots	No	Yes (where appropriate)	Yes	Yes but from rear only if car-free	No
Traffic calming	Junction treatments ("Key Movement Nodes"), formal crossings, building lines, trees	Junction treatment, raised tables (to be used sparingly on bus routes), trees, building lines	Home zone approach: parking bays, narrow vehicle spaces, raised tables	Home zone approach: parking bays, narrow vehicle spaces, trees in carriageway	-
Centre Line	Omitted where possible	Omitted where possible	None	None	N/A
Utilities	In footway, each side in combined service trench	In footway, each side in combined service trench	In footway in combined service trench	In 2m wide soft or hard maintenance strip	-

Figure 150 Street specification by type

Primary Street

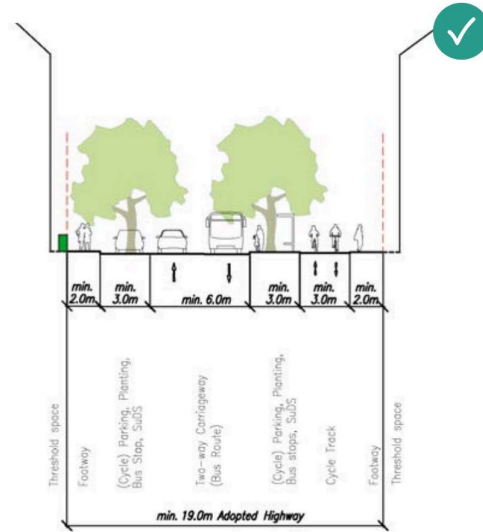


Key Plan

Primary Streets are strategic streets that connect with the three vehicular access points of the Site and thus to Village 6, the A414 and Hunsdon. They form the spine of the street network of Village 7. They handle through traffic and can accommodate bus routes. The two Primary Streets of Village 7 meet at the Village Centre.

The carriageway width of 6.0m is a minimum figure. The carriageway may need to be wider at specific junctions and bends to accommodate turning and passing HGVs and buses, bus lanes or additional vehicle turning lanes. In general, the entirety of the Primary Street network has segregated cycle lanes along it.

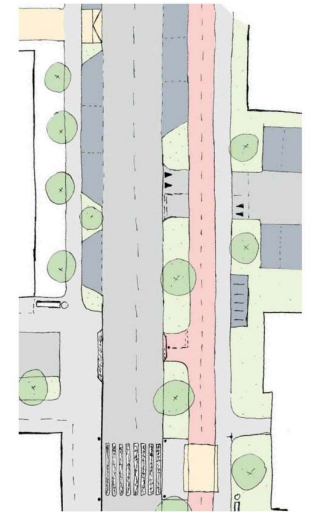
The carriageway is bound by various features on both sides which includes parking, bus stops, SuDS and other features.



Minimum dimensions for elements of Primary Street



Indicative layout of the STC



Indicative layout of a Primary Street



Precedent with SuDS (Eddington Avenue, Cambridge)



Precedent for a Primary Street in the Village Centre (Source: Lea Bridge Road, Walthamstow - Google Maps)

Design principles:

- Primary Streets **must** have multi-use strips either side of the carriageway which can accommodate SuDS, car parking, cycle parking, bus stops, street furniture or planting. Where they accommodate tree planting their minimum width is 3m
- Village Centre Primary Streets **must** feature central reservation min. 2m wide. This is generally raised but flush at turning lanes and crossings
- Cycle tracks **must** have kerb upstand to carriageway

Best practice:

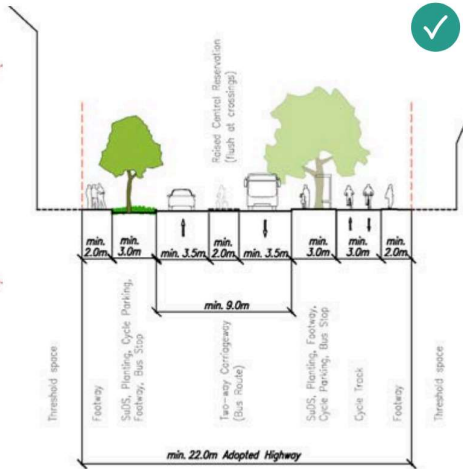
- In constrained environments where multi-use strips between carriageway and cycleway/footway is omitted or reduced in width, street trees **should** be provided elsewhere and cycle tracks **should** be vertically segregated from the carriageway
- Where cycleways and footways cannot be segregated due to space constraints, shared paths of min. 3m width **should** be used instead
- Where Church Lane is not realigned and no crossings are proposed the existing carriageway **should** be retained where possible

STC

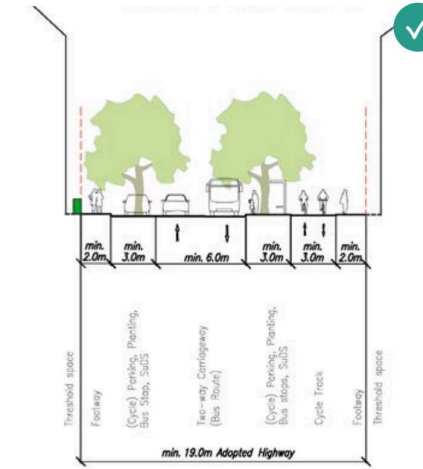
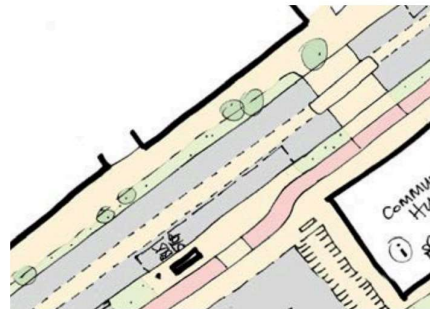


Key Plan

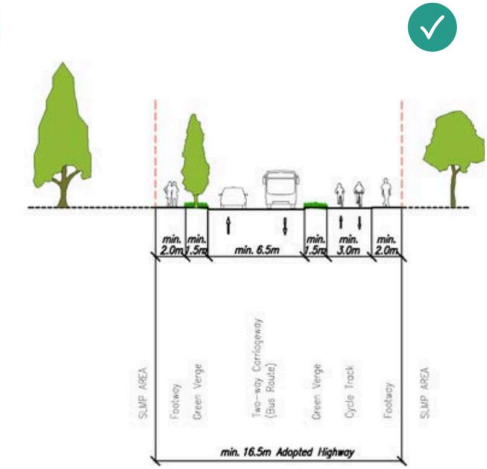
The Sustainable Transport Corridor (STC) is a special type of primary street. It is designed to achieve active travel and bus priority. In addition to the parameters outlined for Primary Streets some additional rules apply.



STC section through main STC Hub



General STC section (Primary Street)



STC section in SLMP area (indicative)



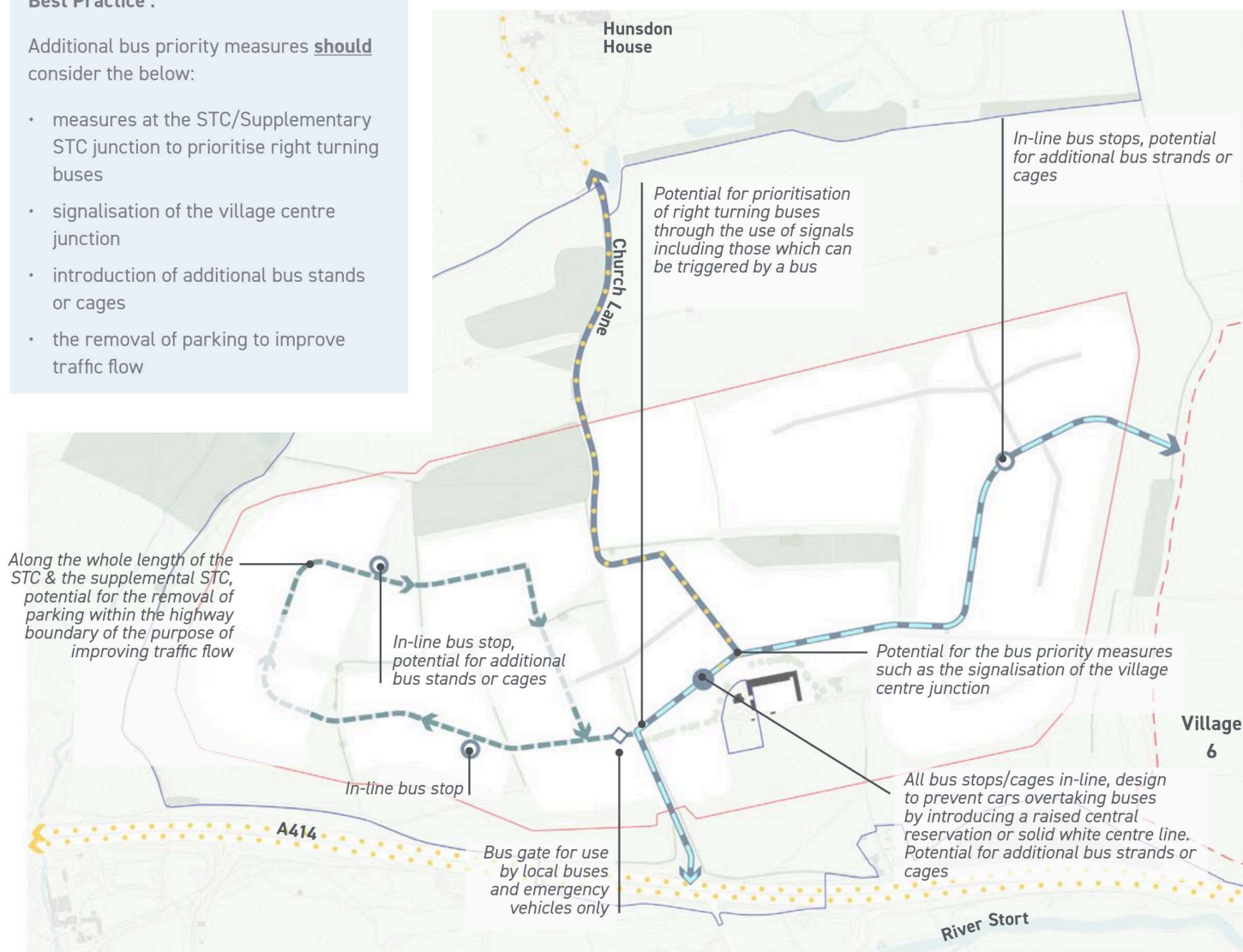
Design principles:

- The STC **must** be designed along its full length to give appropriate priority to sustainable modes over the private car (with associated journey time advantages in respect of public transport) to ensure journey time reliability
- Bus stops **must** be in-line as opposed to in a lay-by
- A bus gate **must** be located on the supplemental STC
- The STC design **must** consider future adaptation to incorporate additional bus priority measures if required by the Transport Review Group (TRG)
- At the STC/Supplementary STC junction bus loops **must** be provided in the carriageway to allow easy future upgrade to a signal junction triggered by buses turning right into the Supplementary STC
- The STC in the Village Centre **must** be designed to include measures that prevent the overtaking of buses at the STC Hub by general traffic, e.g. raised kerbs to central reservations.

Best Practice :

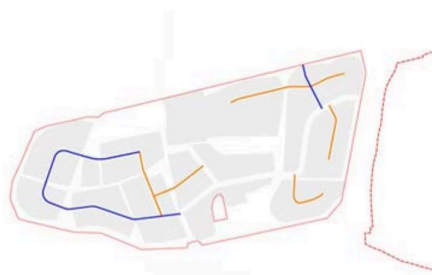
Additional bus priority measures **should** consider the below:

- measures at the STC/Supplementary STC junction to prioritise right turning buses
- signalisation of the village centre junction
- introduction of additional bus stands or cages
- the removal of parking to improve traffic flow



Bus prioritisation measures diagram

Secondary Street



Key Plan (streets in blue have cycle tracks)

Secondary Streets are distributors, linking neighbourhoods to the primary streets while at the same time picking up traffic from subordinate streets. Where required some Secondary Streets will accommodate bus services.

They are the main access for residential neighbourhoods, and have a smaller scale to reflect lower traffic volumes.

The carriageway width of 5.5m is a general figure. The carriageway might be wider at specific junctions. Some sections of the Secondary Street network have segregated cycle lanes along them, while others do not (see Key Plan).

The sections of the Secondary Street network that must be designed in order to accommodate bus services are indicated in the Bus Route Plan.

The carriageway is bound by various features on both sides which includes parking, bus stops, SuDS and others, but in constrained environments these multi-use strips may be omitted to one side.



Precedent of a Secondary Street (Source: Newhall, Harlow - Google Maps)

Design principles:

- Secondary streets marked blue in the key plan **must** feature cycle tracks or shared paths
- Secondary Streets **must** have multi-use strips either side of the carriageway which can accommodate SuDS, car parking, cycle parking, bus stops, street furniture or planting. Where they accommodate tree planting their minimum width **must** be 3m
- Secondary Streets on bus routes **must** be designed to accommodate bus movements
- The Secondary Street leading to the football hub **must** be dimensioned to accommodate coaches.
- Cycle tracks **must** have kerb upstand to carriageway

Best practice:

- In constrained environments where multi-use strips between carriageway and cycleway/footway are omitted or reduced in width, street trees **should** be provided elsewhere and cycle tracks **should** be vertically segregated from the carriageway
- Where cycleways and footways cannot be segregated due to space constraints, shared paths of min. 3m width **should** be used instead
- Placing of car parking in the carriageway for traffic-calming purposes **should** be considered



Precedent of a Secondary Street section with a cycle path (Source: Turing Way, Cambridge - Google Maps)



Precedent of a Secondary Street section without a cycle path (Source: Google Maps)

Tertiary Street



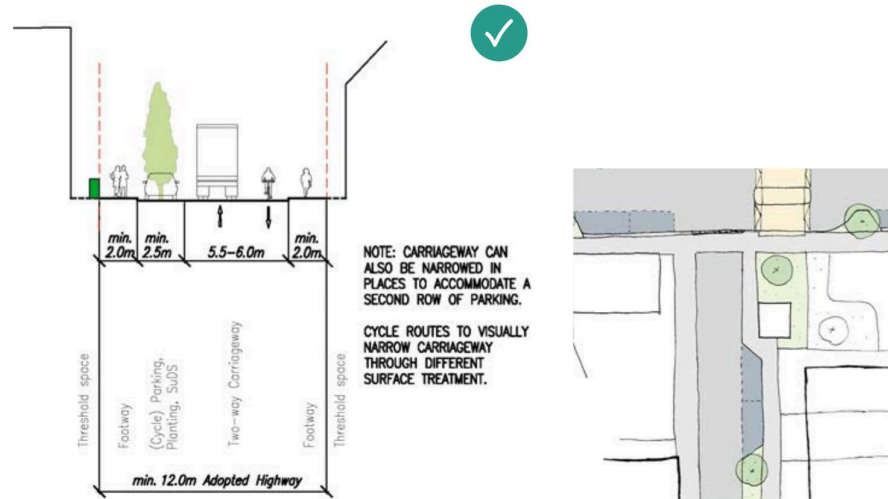
Key Plan

Tertiary Streets are residential streets that feed into streets of a higher order. The streets form a quieter and more residential network. They are more intimate in nature and have a close relationship to the surrounding buildings rather than being highway focused.

They provide access to properties and shall mainly be through routes for active travel rather than private vehicles. There is a variety of typical designs for Tertiary Streets as depicted.

While some Tertiary Streets are between rows of houses, others are bounded by the open landscape on one side.

The carriageway is bound by various features on either side which includes parking, SuDS and others. Tertiary Streets have footways to at least one side.



Indicative section and layout of a wider Tertiary Street



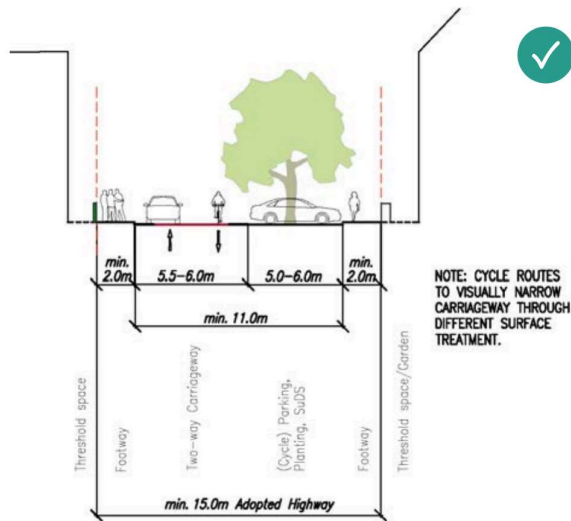
Indicative section and layout of a narrower Tertiary Street



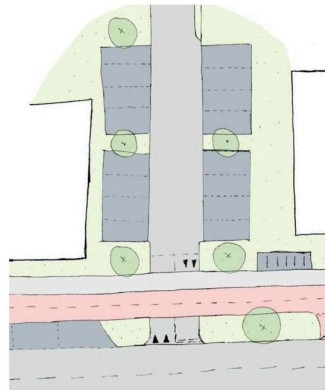
Precedent of a Tertiary Street with raised tables and build-outs to calm traffic



Precedent of a one-way Tertiary Street with contraflow cycling (Source: Google Maps)



Indicative section and layout of a Tertiary Street with perpendicular parking



Precedent of bitmac treatment in Delft, NL (Source: Cycle Embassy of Great Britain)

Design principles:

- Where Tertiary Streets carry commuter or leisure cycle routes, this **must** be highlighted using carriageway treatment, e.g. by use of 3m wide bitmac strip to centre of carriageway
- Footways **must** be continuous and min. 2m wide
- Any one-way streets **must** allow contraflow cycling
- Carriageway width at pinch points **must** be min. 3m.

Best practice:

- Placing of car parking in the carriageway for traffic-calming purposes **should** be considered

Shared Surface Street



Key Plan

Shared surface or mews streets are minor streets that connect to any higher order street. Shared surface streets do not have kerb upstands and are characterised by a flush surface.

Shared surface or mews streets are minor streets that connect to any higher order street. Shared surface streets do not have kerb upstands and are characterised by a flush surface.

Car-Free Streets

Some Shared Surface Streets can be designed as car free. These would not allow general vehicle traffic e.g. by the use of bollards but would still be open to emergency vehicles and if needed to refuse vehicles. They can be implemented as a shared surface or have demarcated cycling facilities.



Precedent of a shared surface onto a green edge
 (Source: Google Maps)



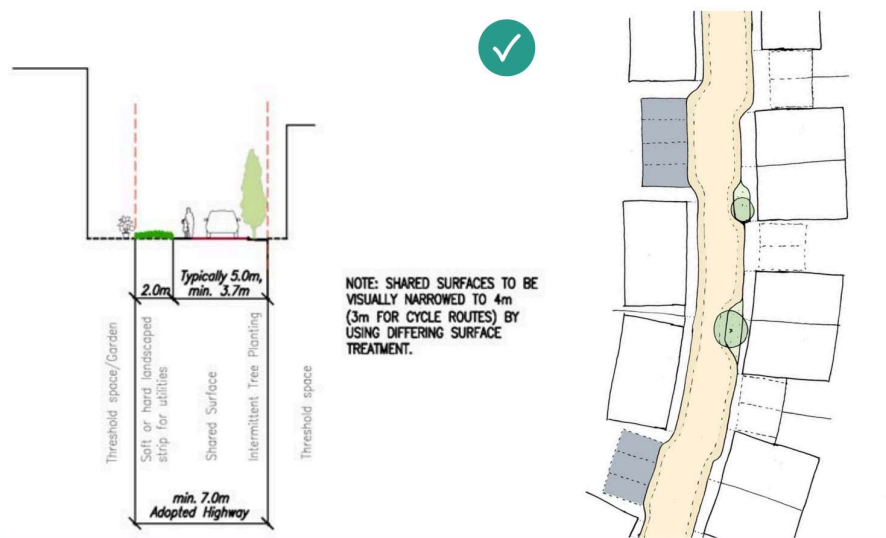
Precedent of a Car-free street: Marmalade Lane, Cambridge

Design principles:

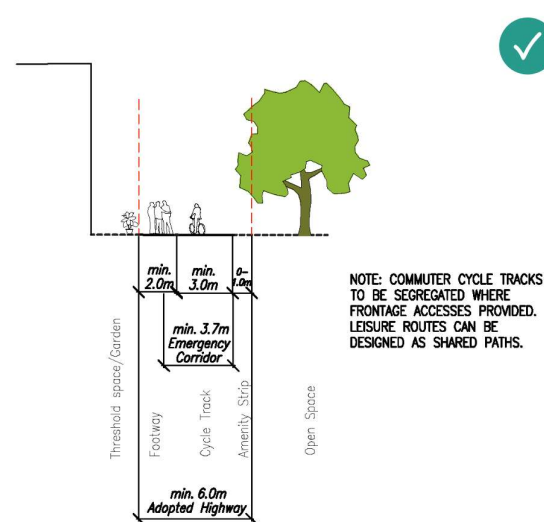
- Where Shared Surface Streets carry commuter or leisure cycle routes this **must** be highlighted using carriageway treatment, e.g. by use of 3m wide bitmac strip to centre of carriageway
- Shared surface streets **must** reserve a 2m wide soft or hard maintenance corridor for utilities to one side which is publicly accessible
- Any one-way streets **must** allow contraflow cycling
- Car-free streets **must** be min. 3.7m wide to allow for emergency access
- Shared Surface Streets **must** serve no more than 50 dwellings. This is reduced to 25 dwellings on a cul-de-sac

Best practice:

- Dedicated pedestrian safe zones where the least traffic is expected **should** be clearly marked (e.g. bollards, surface treatment or tactiles) to aid the visually impaired navigating these spaces
- Widths **should** be varied with the typical width being 5m
- Shared Surface Streets **should** have visual narrowing such as 0.5m strips to either side using distinct surface treatment unless where this conflicts with cycle route surface treatments
- Car-free streets and frontages which can make for a people-friendly and particularly child-friendly environment **should** be implemented where possible
- Special care **should** be taken to discourage indiscriminate parking especially where this impedes on pedestrian movement



Indicative section and layout of a Shared Surface Street



Indicative section of a Car-free Street



Details of **The Walks** on page 247
 Details of **Materials** on page 284
 Details of **Lighting** on page 294

Active Travel Route



Key Plan of Active Travel Routes

Active Travel Route

'Active Travel Routes' comprise all cycling and walking infrastructure that is not already coded as part of the Primary, Secondary, Tertiary Streets, and Shared Surface above. They fill the intentional gaps in the vehicular street network to form a dense and permeable active travel network, to encourage a more sustainable option of travel.

The routes and their location will be detailed as part of Reserved Matters applications but should broadly comply with the Pedestrian and Cycling Network Plans in Section 6.5. Pedestrian connections should be made through residential streets as shown in Figure 100.

Segregated Paths

Segregated paths consists of a cycle track running parallel to a footway or footpath. The two are separated by appropriate kerbing that provides a sensory distinction between the two. Their endpoints are marked by "tramtrack and ladder" tactiles.

Shared Paths

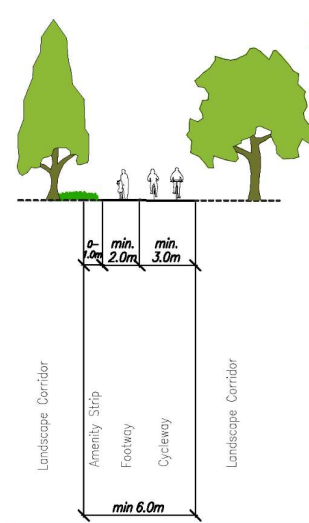
Where flows are lower or space is tight, pedestrians and cyclists will share the same space. These min. 3m wide paths are known as Shared Paths. Their endpoints are marked by the correct use of tactiles.



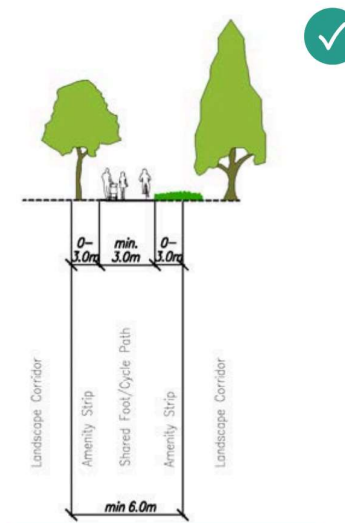
Red bitmac on this Tertiary Street highlights it is a cycle route (Source: Verkeerskunde)



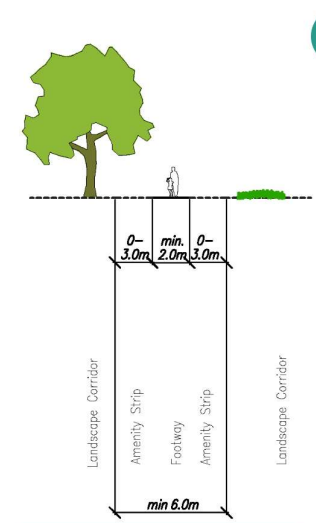
Segregated pedestrian and cycle route, Lea Bridge Road



Segregated Path Section



Shared Path Section



Pedestrian Leisure Route Section

Footpaths

The Active Travel Routes are supported by a finer network of simple footpaths in the landscape corridors. These are not paved and allow additional walking connectivity in and around Village 7. Within the SLMP area all specifications for connectivity, lighting and surfacing of the SLMP on cycle paths and footpaths shall be met.

Permeability

High walkability and cycle connectivity are a key part of Village 7's movement strategy, allowing easy movement by active travel and reducing car use. To achieve this the various types of active travel infrastructure should allow seamless transitions (e.g. from off-road paths to footways adjacent to the carriageway or from carriageway cycling to cycling on an Active Travel Route). This will be achieved by material choices and embedding modal filters into the design from the outset.



Modal filter precedent of a leisure route, Surrey (Source: Create Streets)



Modal filter precedent, Walthamstow (Source: E17 Modal Filters)

Design principles:

- Shared paths **must** be min. 3m wide, segregated cycle tracks min. 3m wide and segregated footpaths min. 2m wide
- Where cycling flows are >300 per hour shared paths and cycle tracks **must** be wider for sufficient capacity
- Where off-street commuter routes provide frontage access, cycle and pedestrian provision **must** be segregated
- Commuter routes **must** be lit and use a sealed surface
- Leisure routes **must** be hard surfaced
- Vertical vegetation (trees, hedgerows) **must** be offset by min. 1m from Active Travel Routes
- Active Travel Routes **must** comply with PMPDG and **must** follow the 5 Core Design Principles (Coherence, Directness, Safety, Comfort and Attractiveness) and geometric requirements (such as minimum widths) **must** follow PMPDG where not specified in this code
- Where tactiles are used, they **must** have a high contrast to footways and carriageways
- Where no vehicular traffic is intended, active travel routes **must** be designed to sufficiently deter motor vehicles from entering, e.g. through the use of bollards
- Active Travel Routes **must** feature adequate wayfinding and signposting

Best practice:

- Compressed gravel or shingle **should** be considered for footpaths to reduce sealed surfacing
- Leisure routes **should** have lighting where it improves safety while keeping light pollution to a minimum



Commuter Pedestrian Routes (Source: Sustrans)



Sensitive lighting to a commuter route standard, Thames Path Richmond (Source: Philips)

Off-site Links

There are several S106 commitments in the form of off-site links associated with Village 7. These are the Hunsdon Lock Link, the Roydon Commuter Link and the V1-7 Temporary Pedestrian and Cycle Link. Their parameters are coded here. The details of these routes will be submitted and approved separately in line with S106 requirements and triggers, and relevant schemes of detail.

Hunsdon Lock Link

This link connects the southern end of Hunsdon Pound to the canal-side towpath at Hunsdon Lock.

Design principles:

- Surfacing **must** be hard
- Route **must** cater to pedestrian and cycling leisure use
- Newbuild sections **must** be min. 3m wide

Best practice:

- Route **should** be designated as a Public Right of Way (PRoW) if possible
- Barriers to cycling such as gates **should** be removed where possible

Roydon Commuter Link

This link connects Village 7 with Roydon station. It is built to a commuter route standard. A preferred and alternative alignment have been identified. The final alignment will be fixed prior to delivery.

Design principles:

- Route **must** cater to pedestrian and cycling commuter use
- Surfacing **must** be hard
- Route **must** have lighting at junctions and tight bends as a minimum
- Parapet height of footbridge over A414 **must** be increased to 1.4m and cycling must be permitted subject to feasibility and safety assessments. If this cannot be achieved, sufficient deterrents must be installed on both sides of the bridge to encourage cyclists to dismount.
- Existing footbridge safety **must** be reviewed and improvements proposed in line with S106 requirements.
- Any footbridge works **must** be subject to feasibility and safety assessment.

Best practice:

- Inclines **should** be <1:20 where the topography allows
- The preferred route rather than the alternative route **should** be achieved
- Newbuild section **should** generally be min. 3m wide
- Where cyclists are required to dismount appropriate signage **should** be provided

A414 Footbridge Works

The Footbridge Works will involve the improvement of the footbridge to accommodate cycling, or if this cannot be safely achieved, the installation of measures to encourage cyclists to dismount. The Footbridge Works will not involve the replacement of the footbridge. Accordingly, and prior to design and delivery of the Roydon Commuter Link in accordance with the S106 Agreement, and in accordance with the Design principles, safety and feasibility assessment of the footbridge as improved by way of increased parapet heights will be undertaken. Where these assessments identify these improvements cannot be achieved, deterrents to encourage cyclists to dismount will be designed-in

to the Roydon Commuter Link Scheme for submission to and approval by the Local Planning Authority in consultation with the Local Highway Authority.

V1-7 Temporary Pedestrian and Cycle Link

This temporary link provides a walking and cycling connection between Village 7 and Village 1 boundary from first occupation in V7 until the STC connects these two villages instead.

Design principles:

- Route **must** be min. 3m wide
- Surfacing **must** be hard
- Route **must** have lighting at junctions and tight bends as a minimum
- Route **must** cater to pedestrian and cycling use

Best practice:

- Inclines **should** be <1:20 where the topography allows

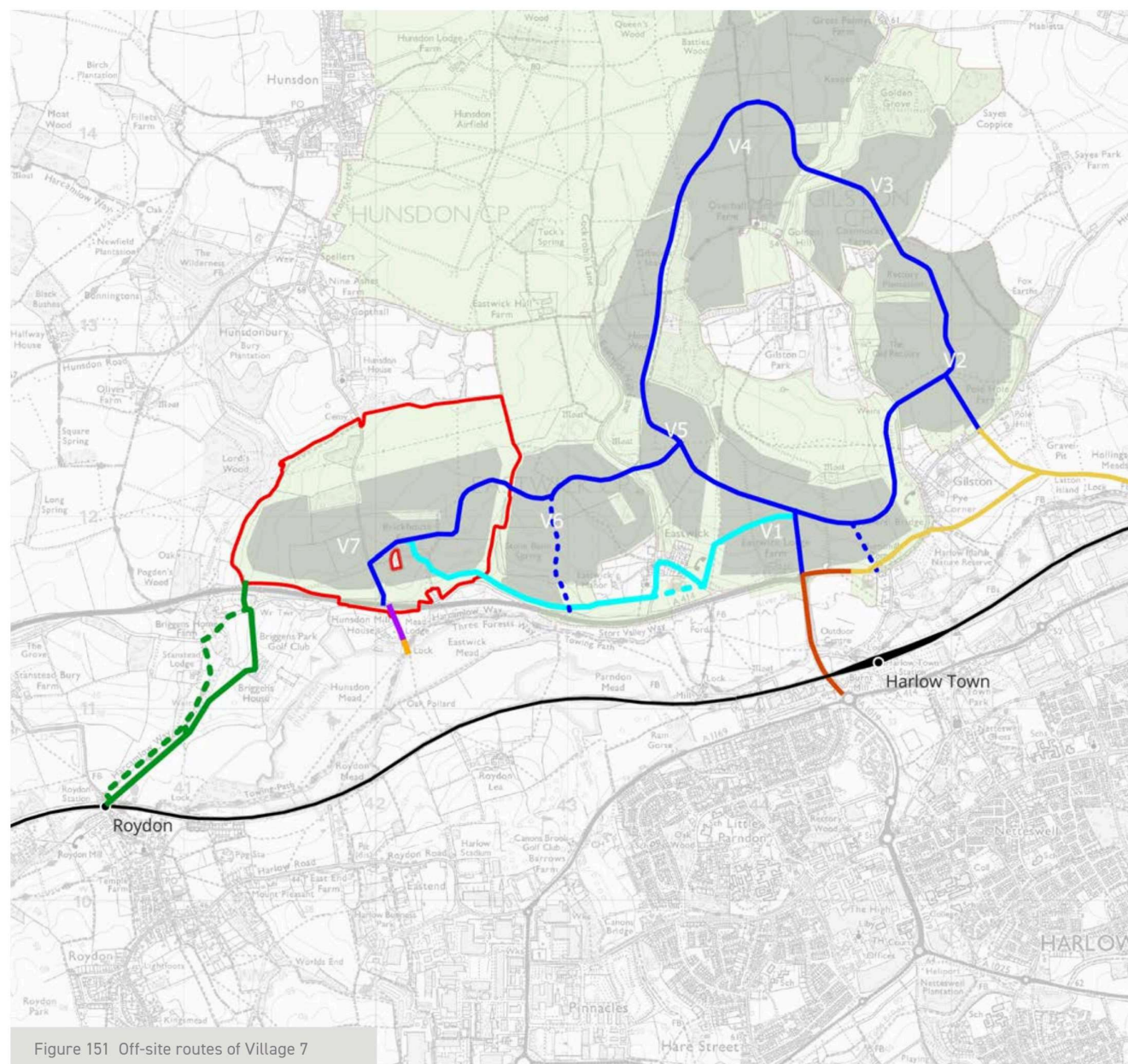


Figure 151 Off-site routes of Village 7

Key Spaces, Junctions and Crossings

Junction Types

Preferred junction arrangements are specified below for the intersection of different street types. More detailed information on each type is provided on the following pages.



Careful junction design with high-quality public realm design (Source: Letchworth Garden City - Google Maps)

	Primary Street	Secondary Street	Tertiary Street	Shared Surface Street	Footway	Shared Path
Primary Street	Roundabout or T-Junction with turning lane	-	-	Copenhagen crossing or modal filter only	Formal or informal crossing	Formal or informal (raised) crossing
Secondary Street	T-Junction with turning lane or raised table	T-Junction with raised table	-	Copenhagen crossing or T-junction with raised table or modal filter only	Informal crossing (raised if not on bus route) or zebra	Informal crossing (raised) or tiger
Tertiary Street	Copenhagen crossing or T-Junction with raised table or modal filter only	Copenhagen crossing or t-junction with raised table or modal filter only	Shared surface raised junction	Shared surface raised junction or Copenhagen crossing	Informal crossing (raised or dropped kerb)	Informal crossing (raised)
Protected Cycle Track	Formal crossing (e.g. tiger, cycle signals)	Formal (e.g. tiger) or informal crossing (i.e. raised table)	Formal (e.g. cycle priority, tiger) or informal crossing (i.e. raised table)	Shared surface raised junction	Informal crossing (flush) or zebra	Shared surface raised junction

Figure 152 Design Principle: Junction types by street

Details of **Landscape Gateway** on page 278Details of **Built Form** on page 350**Best practice:**

- Vehicle speeds **should** be reduced by using carriageway narrowing
- Northern gateway **should** mark speed limit transition

Gateway Junctions**Key Plan**

Village 7 has three gateways which mark the vehicular entrances to the village whose function is to lower speeds and increase driver awareness of having entered a busier environment. These junctions act as strategic gateways to Village 7 and/or the Gilston Area, stopping or slowing traffic and indicating a change in character from rural street to urban street and a corresponding slowing of speeds.

Design principles:

- All gateways **must** include traffic calming
- Southern gateway **must** have a signal crossing
- Eastern and northern gateways **must** have informal or zebra crossings

*Illustrative layout of southern gateway*

Precedent for the eastern gateway: a traffic-calming gateway treatment in a landscape corridor, Tornagrain (Source: Google Maps)

*Illustrative layout of northern gateway**Illustrative layout of eastern gateway*

School Corner



Key Plan

This location is a key focal point of cycle and pedestrian routes in Village 7 affording easy and safe travel in all directions and in particular towards the V7 primary school.



Illustrative layout of school corner



Precedent for the public realm treatment at the northern gateway, Bexleyheath Broadway (Source: Google Maps)

Design principles:

- Formal crossing facility **must** be located at or near bend in Church Lane by landmark tree
- Crossing **must** be fully safety audited at detailed design stage and location near bend adjusted if required.
- Speed limit **must** be 20 mph

Best practice:

- Where high cycle and pedestrian flows are expected, cycle track, shared path and footway widths **should** exceed the minimum widths
- Levels of greening and permeable surfacing **should** be maximised
- Cycle crossings **should** be separated from pedestrian crossings rather than shared crossings if space allows
- Signal heads **should** be set back to increase crossing space
- Raised tables **should** be used to calm traffic at key locations such as the junction of Church Lane with the employment area/community heat hub access
- Carriageway **should** be visually narrowed using carriageway edge and central reservation treatments



Details of **Brickhouse Square** on [page 228](#)
 Details of the **Character Area** on [page 366](#)
 Details of the **Village Centre** on [page 394](#)

Roundabout

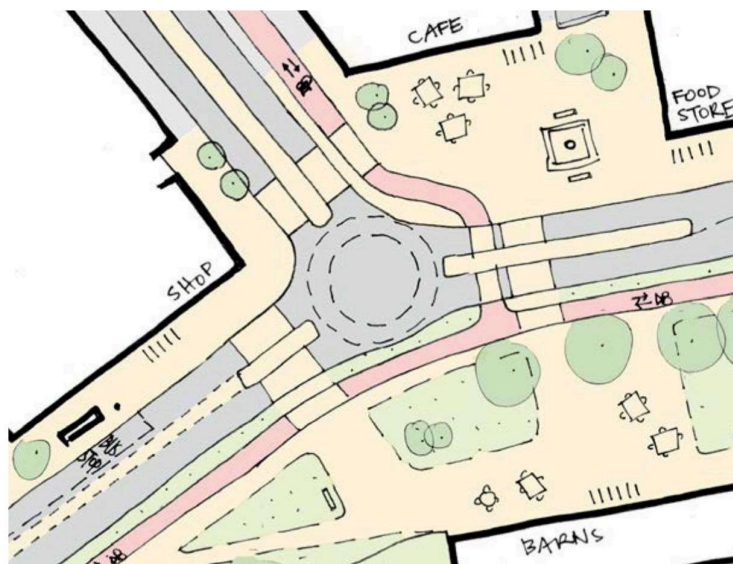


Key Plan

This junction type can be used where two Primary Streets meet. It is well suited in situations where flows are balanced. As there is no minor arm, waiting times are evened out between the arms.

The reduced speeds at a roundabout make it easier for pedestrians and cyclists to establish priority on the crossings surrounding it. A comparatively small diameter of 18m for a mini-roundabout would mean they need not stray too far from their desire paths to traverse the roundabout.

The central island of the roundabout should be overrunable as seen in the precedent. This allows for HGVs to pass through the roundabout despite its small radii.



Illustrative layout of the junction



Precedent: Frideswide Square, Oxford (Source: The Oxford Magazine)



Design principles:

- Main junction in Village Centre **must** have place-focused design
- Eastern arm **must** have formal pedestrian and cycling crossing point
- All arms **must** have pedestrian crossing points



Best practice:

- For good placemaking mini-roundabout **should** have 18m diameter and the centre **should** be overrunable
- Additional bus priority, such as signals, **should** be added if capacity enhancements needed (see p.223)
- Where high cycle and pedestrian flows are expected, cycle track, shared path and footway widths **should** exceed the minimum widths

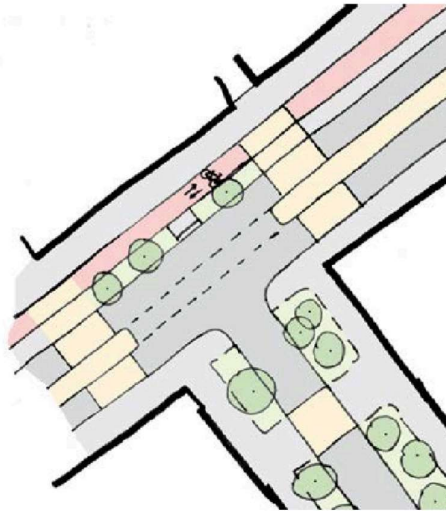
T-Junction with Turning Lane



Key Plan

The priority T-Junction with turning lane can be used instead of a roundabout where two Primary Streets meet. It can also be used where Secondary Streets meet Primary Streets that have a central reservation primarily in the Village Centre.

A turning lane would be provided on the major arm in line with the central reservation.



Illustrative layout of a T-Junction with a turning lane between a Primary and a Secondary Street



Precedent: Place-sensitive turning lane in a central reservation, Bexleyheath (Source: Google Maps)

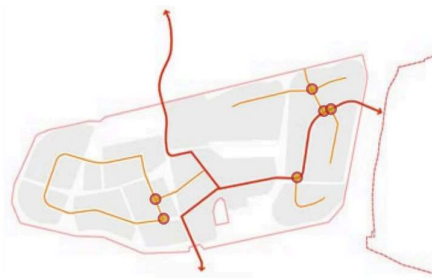
Design principles:

- Turning lanes between central reservation **must** use minimal road markings
- Junction type **must** only be used where flows necessitate it
- Informal pedestrian crossing facilities **must** be provided to all arms



Illustrative layout of a T-Junction with a turning lane between two Primary Streets

T-Junction with Raised Table

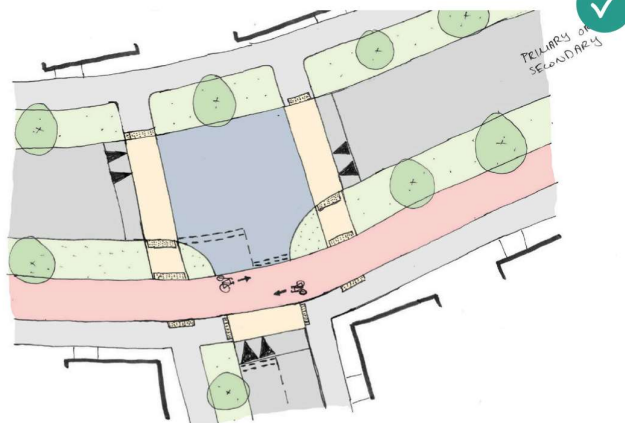


Key Plan

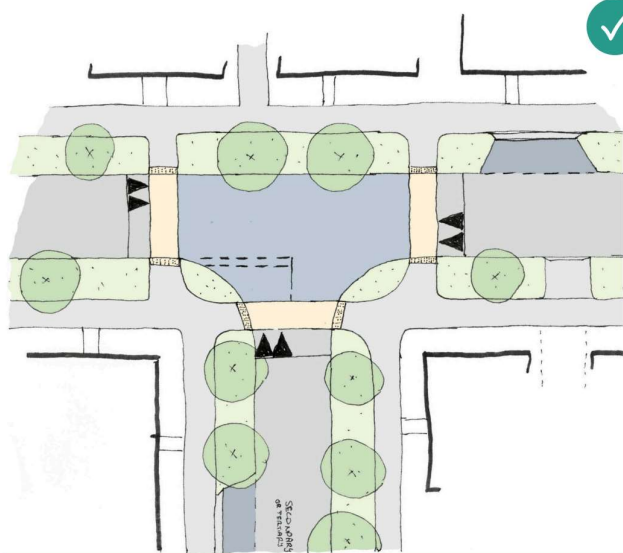
This junction type can be found at most junctions where Secondary Streets meet Primary Streets or other Secondary Streets. They can also sometimes be found where a Tertiary Street connects to a Primary or a Secondary and crossing of the major arms is desirable. Similarly it can also occur where a Shared Surface Street meets a Secondary Street.

The traffic on the major arms has priority over the traffic the minor arm. The junction is on a raised table, giving easy crossing facilities for active travel and lowering speeds.

Radii of the minor arm should be kept to a minimum to keep distances short for pedestrians and cyclists.



Illustrative layout of a raised table with a cycle lane



Illustrative layout of a raised table without a cycle lane

Design principles:

- Informal pedestrian crossing facilities **must** be provided to all arms
- Raised table **must** be differentiated from surroundings through material treatment with high contrast
- Raised tables on bus routes **must** be raised by max. 75mm and ramps **must** have max. 1:15 incline

Best practice:

- Radii on minor arm **should** be kept to a minimum to keep distances short
- Indiscriminate parking on raised junctions **should** be avoided by strategically placing street trees, street furniture and kerblines



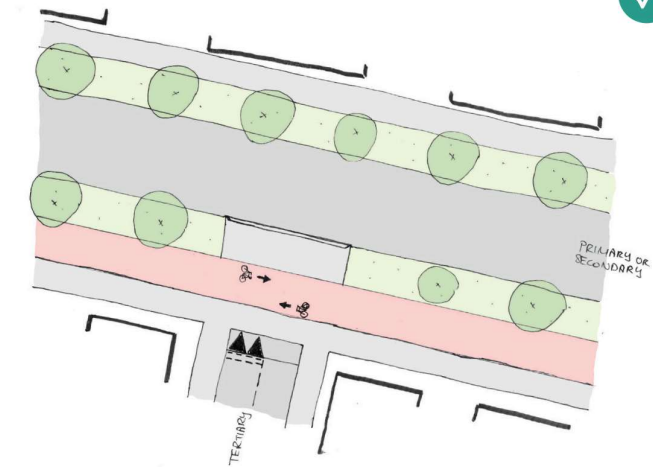
Precedent: A raised table arrangement with block paving, Trumpington (Source: Google Maps)

Copenhagen Crossing

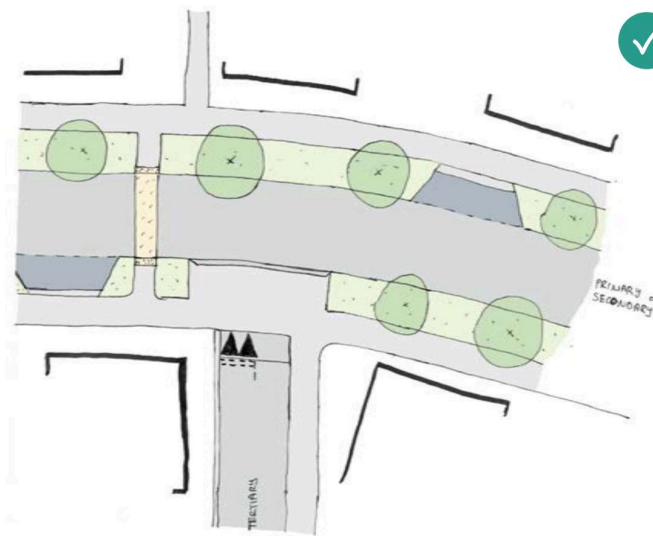
Copenhagen crossings or continuous footways prioritise pedestrians and cyclists at side street junctions. These involve extending the pavement across side street junctions, giving pedestrians and cyclists a continuous pavement rather than a traditional kerb where they would have to wait before crossing the side street. This encourages vehicles to slow down when entering or exiting the side street, reinforcing pedestrian and cyclist right of way.

In Village 7 these crossings are primarily to be found where Tertiary Streets meet Primary or Secondary Streets and where a raised table is not desirable. Shared Surface Streets also connect into Primary and Secondary Streets using a Copenhagen Crossing. It may also occur where Shared Surface Street meets a Tertiary Street although a Raised Junction approach is preferred for such situations.

These crossings may be found with or without segregated cycle tracks.



Illustrative layout of a Copenhagen Crossing with a cycle track



Illustrative layout of a Copenhagen Crossing without a cycle track

Design principles:

- Footway and cycle track material treatment **must** be continuous
- Where no verge is present between carriageway and foot/cycleway, a steep entrance kerb (e.g. Dutch style) **must** be used to keep crossfalls on foot/cycleway consistent

Best practice:

- Copenhagen crossing **should** be combined with dropped kerbs to main arm if pedestrian crossing needed
- Tactiles for footway and cycle tracks **should** be avoided where possible



Precedent without cycle lane, Waltham Forest (Source: London Borough of Waltham Forest)



Precedent with cycle lane, Waltham Forest (Source: Google Maps)

Shared Surface Raised Junction

This junction type can be found on Tertiary Streets, where these meet other Tertiary Streets or Shared Surface Streets.

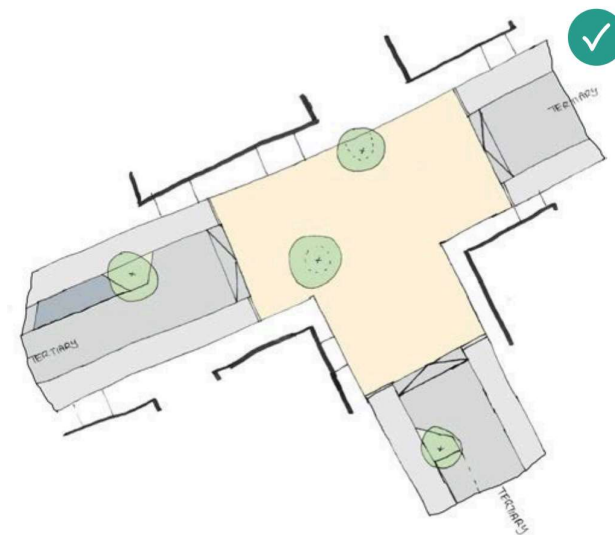
The raised table acts as a traffic calming feature and gives easy crossing facilities for active travel. It is an informal treatment where priority is not signed which further reduces speeds. Radii of the minor arm should be kept to a minimum to encourage pedestrians to use the crossing facilities.

Design principles:

- Start of shared surface **must** be clearly marked on carriageway and on footway

Best practice:

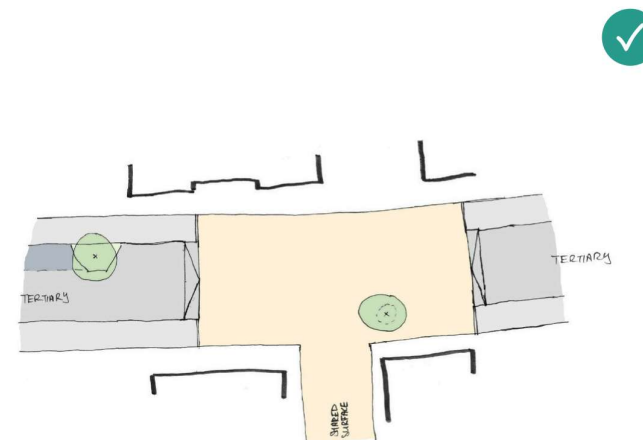
- Shared surface and footway **should** use same surface treatment where possible
- Placement of street furniture and trees within shared surface **should** be considered
- Street trees, street furniture and kerblines **should** be strategically placed to avoid indiscriminate parking on raised junctions



Illustrative layout of a raised table between two Tertiary Streets



Precedent: Raised table, Newhall, Harlow (Source: Google Maps)



Illustrative layout of a raised table between a Surface Street



Precedent: Raised table, Newhall, Harlow (Source: Google Maps)

Formal and Informal Crossings



Key Plan

At regular intervals on the Primary Streets crossing facilities for pedestrians and cyclists shall be provided in various forms independently from those provided at junctions.

Formal crossings include zebra, parallel or signalled crossings while informal crossings include raised tables and dropped kerbs.



Illustrative layout of an informal cycle crossing on a Primary Street



Illustrative layout of an informal crossing (1), a parallel crossing (2) and a toucan crossing (3)

Design principles:

- Raised tables **must** have different surface treatment to the general carriageway
- **Must** be designed with gentle gradients and smooth transitions to ensure they are accessible and comfortable for less confident cyclists, supporting inclusive and safe cycling environments
- Cycle tracks crossing Primary Streets **must** use formal crossing facilities
- Raised tables on bus routes **must** be raised by max. 75mm and ramps **must** have max. 1:15 incline

Best practice:

- Formal crossings with signals on cycle routes **should** be parallel crossings rather than toucan crossings if space allows
- Informal crossings **should** be raised rather than dropped kerbs



Precedent: Informal cycle and pedestrian crossing (Source: Google Maps)



Precedent: Tiger crossing, Rosendale Road, Lambeth (Source: Google Maps)

Traffic Calming

Traffic calming within Village 7 is to be implemented through a carefully designed urban street form with 'events' within the street that not only provide variety and a sense of place, but naturally force drivers to think about their surroundings and to be more cautious, resulting in reduced vehicle speeds. Therefore, the speed limits will be largely enforced by self-regulation.

Traffic calming can take many forms, including alternating on-street parking (horizontal deflection), raised tables (vertical deflection), narrow entry radii to side streets and continuous footways across side streets. The latter will encourage motorists to slow down and give priority to pedestrians and cyclists. Gateway treatments must be provided where the built-up area of the village begins to inform motorists about the low-speed environment they are entering. Along bus routes less traffic calming is appropriate, e.g. fewer raised tables.

Traffic calming measures may include:

- Horizontal deflection (e.g. pavement build-outs with soft landscaping) and street widths;
- Vertical deflection (raised tables at crossings);
- Distances between junctions;
- Reduced visibility (e.g. through planting);
- Varied building setback;
- Human activity along roadside; and
- Street trees close to carriageway edge or for minor streets within carriageway;
- Visual narrowing.

Design principles:

- Gateways **must** feature traffic calming

Best practice:

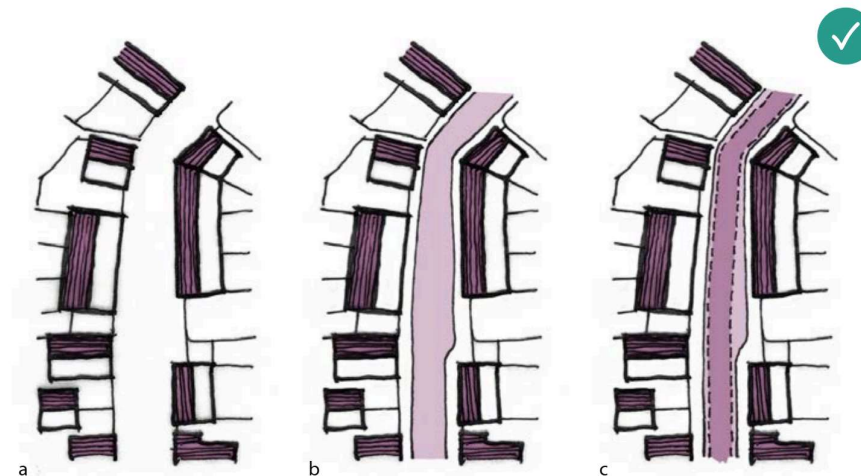
- Road markings **should** be avoided where possible
- Approach to traffic calming **should** be design-led rather than applying traffic calming events at set minimum distances
- Kerblines **should** follow the buildings, not vice-versa



Precedent of gateway treatment: Howe Green, Essex (Source: Google Maps)



Precedent of vertical deflection: Poundbury, Dorset (Source: Google Maps)



From left to right, (a) the buildings and urban edge of a street help to form the place; (b) the kerb line can be used to reinforce this; and (c) the remaining carriageway space is tracked for movement and for the provision of places where people may park their vehicles. [DfT, *Manual for Streets*, page 81]

DfT, Manual for Streets, p.81

Bus Gate

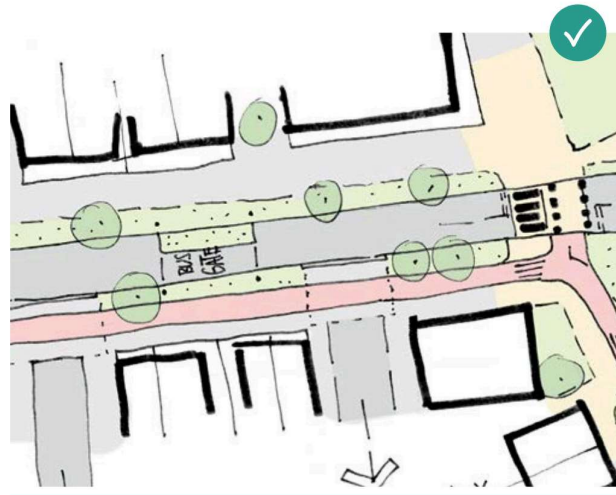


Key Plan

A bus gate is to be provided immediately west of the STC Hub to give priority to buses serving the western parcels and make cars follow a more circuitous route.

This will be enforced through traffic restriction signage (and possibly cameras), rather than moveable barriers or rising bollards.

The bus-only street segments around the gate are not intended for general vehicle access. Ideally, the restriction is self-enforcing, e.g. through the use of landscape treatments and surface colouring.



Illustrative layout of a bus gate

Design principles:

- Bus gate **must** be located on the Secondary Street to the west of the STC Hub. This means no general traffic between A414 and western parcels without passing STC Hub
- Bus gate **must** feature carriageway narrowing

Best practice:

- Enforcement measures **should** be based on compliance levels
- Surface treatments (e.g. colour) and landscaping (e.g. rain gardens) **should** reinforce that bus gate is not for general vehicle access



Railton Road bus gates, Lambeth (Source: The Ranty Highwayman Blog)

Mobility Hubs and Bus Stops

A hierarchy of transport hub facilities and bus stops will enable interchange between all mobility types and will offer a range of other community facilities.

The Village 7 STC Hub, located at the Village Centre, will be a secondary mobility hub as laid out in the Harlow and Gilston Garden Town Guide for Sustainable Community Transport Hubs. It is located on the new STC and at the heart of the new community, and is supported by local hubs at the other Village 7 bus stops.

STC Hub

The STC Hub is the main bus hub, interchange and communal focal point of Village 7. It will be delivered in an interim format upon first occupation and must be fully built prior to the occupation of 150 units in Village 7.

Design principles:

- A temporary turning facility for buses to the east of the STC Hub **must** be provided from from 1st occupation in Village 7 until the STC is connected through to Village 6
- STC Hub **must** be located as indicated on Regulatory Plan
- The STC Hub **must** be designed to provide access for all
- Upon its construction, the STC Hub's design **must** be future-proofed to accommodate the HERT based on the requirements known at the time.
- From the start the STC **must** offer the following amenities:
 - High-frequency bus services to multiple local and area destinations
 - 1 Double-length bus cage 3x30m per direction
 - Lighting
 - Priority access and egress for bus services
 - Vehicular access from one side providing a drop-off zone
 - Real Time Travel Information

- (E-) cycle stands, including provision for non-standard bicycles
- Space for bus layover
- Sheltered, yet not secluded, waiting areas for users
- Seamless ticketing system

Once the STC is completed, the following amenities **must** also be included:

- Branding, wayfinding and signposting that makes the mobility hub, the STC, major cycling routes and important footpaths noticeable and readily identifiable
- Marking and road designs that are inclusive and form a readable landscape for mobility and sight impaired users
- Connections to the village's major cycle routes in all principal directions
- (E-) car club vehicles for hire
- Parcel pick-up facility, e.g. parcel lockers
- Proximity to a remote-working environment
- Recycling facility
- Seating for users as well as for leisure purposes
- Drinking fountains

Best practice:

The STC Hub **should** include the following amenities:

- (E-) cycle lockers and charging
- (E-) cycle and (e-) scooter hire facilities
- (E-) cycle maintenance facilities
- Buggy and children's scooter parking
- Charging facilities



Cycle Hub at a public transport interchange

Other Bus Stops

The three other bus stops increase accessibility to the more peripheral parts of the village and may include some of the same amenities as the STC Hub, which are listed below.

Design principles:

- Three bus stops **must** be located as indicated on Regulatory Plan
- The three bus stops **must** include the following amenities:
 - High frequency bus service (if located on main STC)
 - 2.75-3m wide bus cages min. 15m long
 - Must be lit
 - Must provide access for all
 - Car club parking
 - Real time travel information
 - Sheltered waiting areas
 - Seating for users and for leisure
 - Connections to protected cycle routes
 - Wayfinding and signposting

Best practice:

The three bus stops **should** include the following amenities:

- Recycling facilities
- (E-) cycle and (e-) scooter hire facilities
- (E-) car club vehicles for hire

Bus Stands

Village 7's location might require buses to wait between journeys for operational reasons. For this purpose, bus stands are used.

Design principles:

- Bus stands **must** be 3x15m in size
- There **must** be an area safeguarded for a bus stand with capacity for two buses between the north-western bus stop and the STC Hub.

AMENITIES OF THE STC HUB

- | | |
|--|---------------------------------------|
| 1 Sheltered waiting areas | 7 Seating for leisure |
| 2 Parcel locker | 8 High-frequency service |
| 3 E-cycle and e-scooter stands and hire facilities | Not shown in diagram: |
| 4 Wayfinding, signposting | • Bus priority |
| 5 E-car club vehicles for hire | • Inclusive markings and road designs |
| 6 Real-time passenger information and seamless ticketing | • Connection to major cycle routes |
| | • Remote working space |
| | • (E)-cycle lockers |
| | • Recycling facilities |

Diagram showing an example of a Mobility Hub
(Source: CoMoUK)



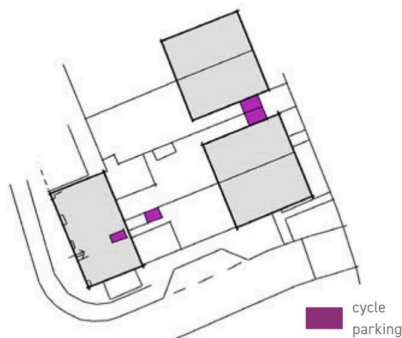
Parking Typologies

Cycle Parking

Village 7 will have various types of cycle parking including on- and off-plot, long- and short-stay, residential and commercial, etc. Further details on quantum can be found in the VAMPS.

Resident cycle parking typologies are varied and include dedicated sheds, designated cycle stores and garage storage.

Besides offering on-plot cycle parking for all uses, the provision of off-plot cycle parking provision, including visitor cycle parking, will contribute towards the promotion of sustainable movement.



Example of house type with cycle parking shown

Design principles:

- Cycle parking **must** be designed in compliance with PMPDG
- Long-stay on-plot cycle parking **must** be secure and covered but also readily accessible to the occupants of a building, e.g. by providing level access
- Cycle parking quantum **must** be in line with VAMPS requirements
- All residential development without garages **must** be complemented by short-stay visitor cycle parking at a rate of one space per four dwellings. These spaces are to be provided in the public realm or a public-facing landscaped buffer. Such parking **must** also be provided in the village centre for non-residential uses either on plot or close-by within the public realm

- At the STC Hub and local hubs, cycle parking **must** be complemented by amenities such as pumps, e-bike charging provision, etc.
- Within the public realm cycle parking **must** be positioned to leave at least 2m clear pavement width for pedestrians
- On-plot cycle parking for houses **must** be accessible without passing through dwelling
- 5% of cycle parking spaces **must** cater to non-standard cycles such as cargo bikes and adapted cycles
- Village 7 green corridors and park character areas (except edges) **must** feature cycle parking including parking for non-standard cycles



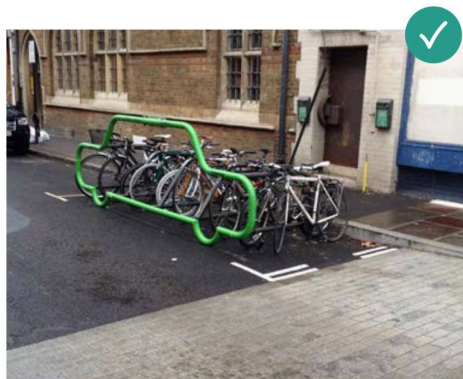
Example of children's scooter parking at a school
(Source: Tilley and Patton)

Best practice:

- Cycle parking locations **should** be well-coordinated with the provision of cycle lanes
- On plot, residential cycle parking **should** preferentially be out of sight from the public realm to increase security
- Visitor cycle parking in public realm **should** be no further than 100m from the dwelling it serves
- A provision **should** be made for private cycle parking to be located at front of house and **should** be easier to access than car parking
- STC Hub and employment hub cycle parking **should** have provision for e-cycle charging
- Key locations attracting children such as the **should**, nursery, play areas and STC Hub **should** provide scooter and buggy parking
- Small play areas (LAPs), allotments and other key attractors such as bus stops **should** have cycle parking allotted from the residential visitor cycle parking allowance
- Dropped kerbs **should** be provided for step-free access to cycle stands, especially where non-standard cycle parking is provided



Readily accessible, covered, secure and sufficient cycle parking provision



Visitor parking in the public realm



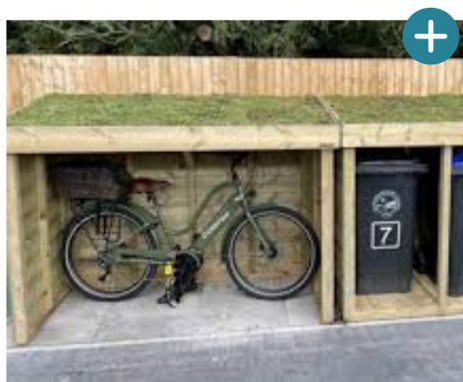
*Residential cycle parking to front door precedent
(Source: Marmalade Lane, Mellis Haward)*



Cycle parking in public realm to include a quantum of spaces for non-standard bicycles



Lockable cycle parking sheds either in well-lit public area or rear gardens



On plot combined bike- and bin stores facilities for houses are a possible design response to the code



Lack of appropriate parking facilities might cause hazard to users of the public realm.



Different design solutions can be selected to fit with building material and character.

Shared Mobility

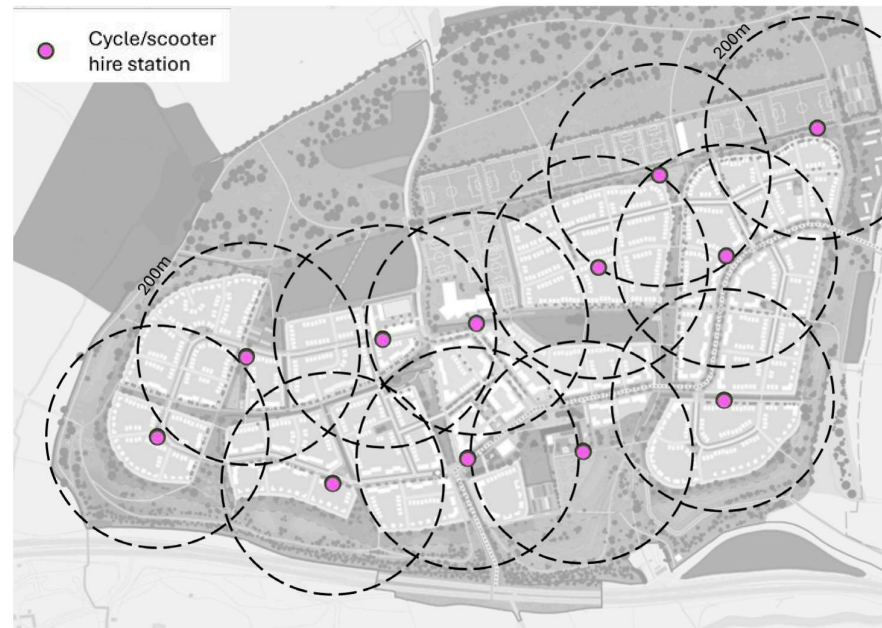
Cycle and Scooter Hire

If a cycle/scooter hire system is implemented, the docking stations will be equally spaced to be no more than 400m apart. This amounts to 13 dedicated areas throughout V7 for hire cycles and scooters, as indicated on the plan. Docking stations must be close to attractors such as the STC Hub, all bus stops, the school, employment area, football hub, NEAP and allotments.

A GA-wide solution (or better HGGT-wide) is preferred, with additional locations are Roydon station, Harlow station, V1 VC, V1 schools, Harvey Centre, Pinnacles, and Templefields. The system could use fixed docking stations or just dedicated parking areas. Parking outside of the dedicated areas could be permitted subject to a convenience fee.

Car Club

The car club quantum will be in line with the Village 7 - Vehicle Access, Movement and Parking Strategy (VAMPS) and must be responsive to demand. A collection of bays must be pooled at the STC hub, along with additional bays at each bus stop, the primary school and the football hub. All car club bays will have EV provision. The rest can be spread across the development and may be free-floating.



Indicative cycle hire location plan



*Precedent: Designated car club bay, Eddington
(Source: Google Maps)*



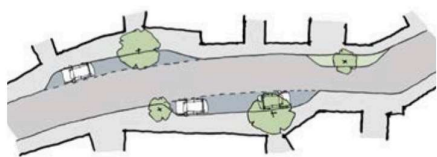
*Precedent: Dedicated on-street cycle hire bays
avoid clutter*

Design principles:

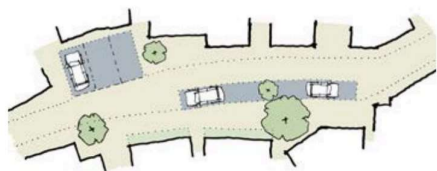
- Cycle/scooter docking stations **must** be equally spaced to be no more than 400m apart
- A share of hire cycles offered **must** be e-cycles
- Any cycle/scooter hire system **must** have docking stations equally spaced and <400m apart
- Cycle and scooter drop-off areas **must** leave footway clutter-free, e.g. by locating them in on-street bays
- Cycle/scooter hire system **must** not be free-floating
- E-scooter hire **must** be by same provider as cycle hire if offered to make offer simpler for users and achieve a low entry threshold
- Car club quantum **must** be in line with VAMPS and **must** be demand-responsive.
- Car club spaces **must** be allowed for in parking quantum
- Dedicated car club bays **must** be provided as per the VAMPS. Remaining can be free floating (non-designated bays) if offered by provider
- Any cycle hire schemes **must** be at least GA-wide or if possible HGGT-wide

Car Parking Typologies

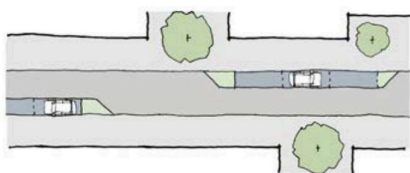
Village 7 will make use of a wide range of different car parking typologies to create neighbourhoods where parking is well integrated without being dominant. The preferred parking typologies for Village 7 have been chosen to support this aim and increase the amount of unallocated parking over allocated parking.



Example of informal on-street (off line) parking



Example of parking in a shared surface area



Example of formal on-street parking

On-Street

On-street parking is generally permit-based and unallocated.

Formal on-street parking

As a rule, all on-street parking spaces will be clearly defined. In some of the streets, suitable parking controls may need to be implemented as part of any local authority adoption process although all efforts should be made to design out the need for such controls. This typology is best suited for Secondary and Tertiary Streets.

Informal on-street parking

In residential areas where the character is more rural, the parking spaces can be more subtly evident to suit the informal character of the setting. In conjunction with projecting or recessing the building edge, wider sections of carriageway can be created with some areas providing space for parking, which also creates subtle traffic calming. This typology is suitable on less busy streets, especially Tertiary Streets and Shared Surfaces Streets.

Design principles:

- Parking space dimensions **must** follow those specified in PMPDG
- On-street parking **must** be clearly defined and delineated through the use of visually distinct surfacing and kerbing
- Uncovered rows of parking **must** be loosened up by street trees after a maximum of three bays for parallel parking and four bays for perpendicular and echelon parking
- Street widths, kerbing, driveway depths and street trees **must** be designed and located to minimise indiscriminate parking

Best practice:

- On-street unallocated parking **should** be considered as it offers greater efficiency and reduces the overall need for parking spaces compared to allocated provision
- Unless clearly identified for parking, carriageway space **should** be assumed as being required for traffic movement.
- The need for parking controls **should** be designed out.
- Informal on-street parking **should** only be used in Tertiary or Shared Surface Streets and **should** be designed so inappropriate car parking does not occur that prevents issues for active modes



Informal on-street parking, Chapelton, Aberdeenshire, Credit – Google Maps



On-street parallel parking, Goldsmith Street, Norwich, Credit – Mikhail Riches

Parking Squares and Courts

Parking Square

Public parking squares are found on Secondary and Tertiary Streets, are front-facing and provide parking for the surrounding dwellings. They can vary in their formality depending on the character and typology of the dwellings around them. They must be designed as places; with common features being generous planting to soften the presence of hardstanding and to provide shade, and the careful use of paving materials to differentiate squares from surrounding streets. Parking squares should be designed in a way that discourages inappropriate parking behaviour, e.g. through the use of bollards that are well integrated into the square's design.



Example of an informal parking square

Public Parking Court

Public parking courts located off Secondary, Tertiary Streets and Shared Surface Streets serving dwellings from the front are a good way of reducing allocated on-plot car parking and help reduce the visual impact of parked cars on the street scene. Parking courts should be well related to the dwellings that they serve.

Private Parking Courts

Small private parking courts serve specific dwellings via access from the rear of properties. They work well in most settings and are also appropriate for blocks of flats.



Example of a public parking court

Design principles:

- Public parking squares **must** be designed as places, with generous tree planting and soft landscaping to soften the presence of hardstanding and to provide shade
- Parking squares **must** be designed in a way that discourages inappropriate parking behaviour
- The design of parking courts and squares **must** take account of walking and cycling desire lines



Example of a gated parking court

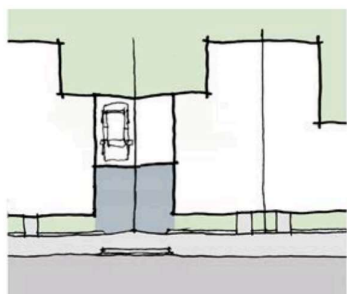
Best practice:

- The Flat over Garage (FOG) typology **should** be used to create surveillanced parking courts
- Unsupervised parking courts with more than 12 bays **should** be avoided
- The design of parking courts and squares **should** not disadvantage pedestrians and cyclists
- Public parking courts **should** be overlooked and well-lit
- Private parking courts **should** be accessed via a single entrance that can be gated to emphasise their private nature
- Appropriate soft landscaping and artificial lighting **should** be included in the design of private parking courts
- Entrances to private parking courts **should** be narrowed down to 3.7m and have built form a minimum of 2m high on either side.

Garages

Garages can help reduce the visual impact of parked cars. However, the placement of the garage in relation to the street and the property is important. The following garage design options are recommended, and should be considered along with building typology and character.

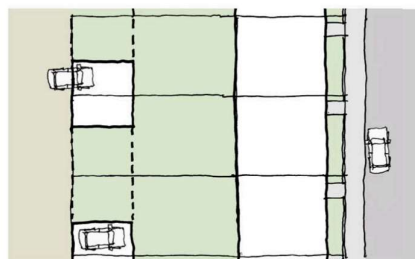
It is recognised that garages are often used for other purposes, such as general storage and as such, if they are of a minimal size, will effectively not provide a car parking space. Therefore, the minimum internal dimensions for garages is 3m x 6m.



Example of property accessed from the front with garage and hardstanding

Garages accessed from mews/courtyard to rear

This typology should be used particularly in the higher density blocks in the Village Heart and Eastern Gateway character areas, along green edges and to enable parking-free frontages on Primary and Secondary Streets. This type ensures that the Primary Street frontages are defined and overlooked by residential properties. Garages can be accessed via a Shared Surface Street or private drive, and can be integrated within dwellings (e.g. flats over garage/s), providing additional passive surveillance to the courtyard space.

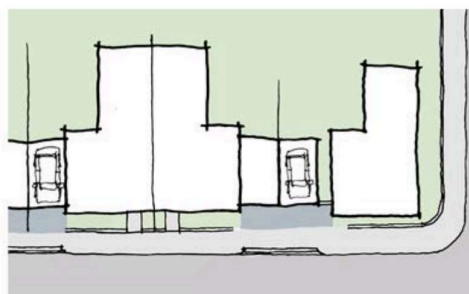


Example of garages accessed from mews / courtyard to rear

Garage to front of plot

This typology can be used across all densities but will be most prevalent in mid-density areas, where on-street space is more limited. It should not be used on Primary Streets. The garage can be integrated with the property but set slightly back from the building line. A setback that is not intended to be its own parking bay must measure at most 2m from the plot boundary to the garage door. This typology still provides a strong building line to the street, but does not dominate the frontage.

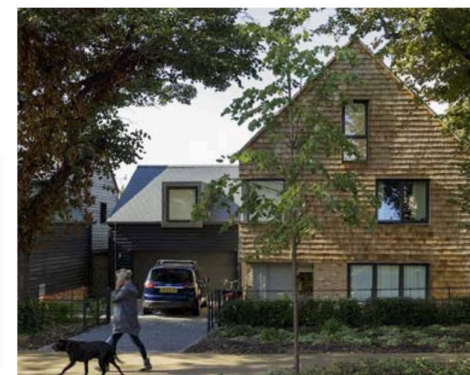
A variation of this typology is the flat over garage (FOG) typology that has allocated garages on the ground floor with a flat above.



Example of garage to the front of property

Design principles:

- Where rear courtyard parking is used, the front of the dwelling **must** be carefully designed to discourage obstruction of the footway by inappropriate parking, e.g. by providing formal on-street parking.
- Garages to the front of a property **must** not be used on Primary Streets.
- Where a garage is attached to a property it **must** be set slightly back from the building line.
- Garages **must** have minimum internal dimensions of 3m x 6m if they are to count as parking.



On-plot car parking to side of house with hardstanding and garage, The Avenue, Saffron Walden (Credit – PTE)

On-Plot Variation

Various parking typologies should be combined creatively to create places with a varied character that are adaptable to future changes in use. This includes the use of car ports, undercroft parking, driveway parking (hardstanding) and garages.

On-plot hardstanding should generally be considered to count towards the parking provision, e.g. in the form of tandem parking or a driveway leading up to a garage if appropriately dimensioned.



Private Parking Court for a block of flats using block paving and tree planting



A well-integrated front of house garage, Abode, Cambridge, Credit – Proctor and Matthews



Garages to rear of houses off a mews, Chapelton, Aberdeenshire, Credit – Google Maps



A private and overlooked parking court without gates, Abode, Cambridge



FOGs can work well in mews streets if well integrated into surroundings.

Design principles:

- Hardstanding driveways **must** be counted towards parking provision (tandem parking)
- Driveway setbacks **must** be chosen that prevent vehicles overhanging footways and cycleways

Best practice:

- Where possible parking **should** be tucked away to the side of the buildings to avoid streets dominated by parking.
- Instead of a garage, a drive-through or car port typology **should** be considered for variety
- Tandem parking is allowed but **should** be limited to two tandem spaces or two plus garage/car port
- On-plot cycle parking **should** be more easily accessible than on-plot car parking.

Allocated and Unallocated Parking

Village 7's off-plot parking spaces shall be in the form of parking courts, parking squares, on-street parking bays and others. While the on-plot spaces are primarily allocated numerous ways of managing the off-plot spaces are possible with the preference being for a permit system. The aim is to maximise occupancy while minimising land take for parking.

Please consult the Village Access, Movement and Parking Strategy for further details on the approach to parking provision.



A parking square of unallocated spaces with tree planting between bays, Poundbury, Credit – Google Maps

Design principles:

- The designer **must** aim to maximise occupancy while minimising land take for parking
- Surface parking **must** use permeable paving where beneficial

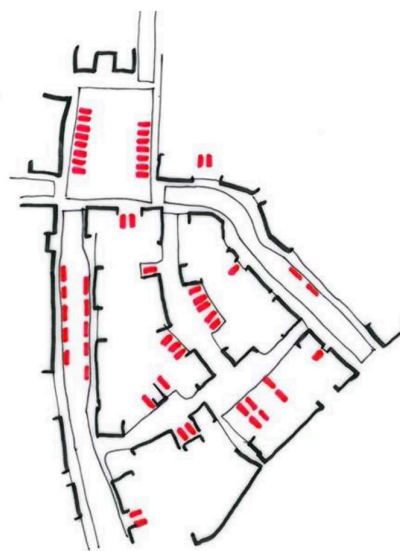
Best practice:

- Different types of parking provision (on-plot v on-street, permit-based parking v visitor parking) **should** be differentiated by the use of different surface treatments to make parking arrangements easy to understand.
- Parking bays and arrangements **should** be designed to maximise future adaptability, e.g. through the choice of surfacing and their positioning
- Off-plot resident parking **should** either be completely unallocated or managed through a permit system where resident parking areas would only allow permit holders to park. With the latter, parking demand **should** be regulated through the price of permits
- Non-residential parking **should** be mostly pooled and off-plot in the form of parking courts, parking squares and on-street parking.

Adaptable Design

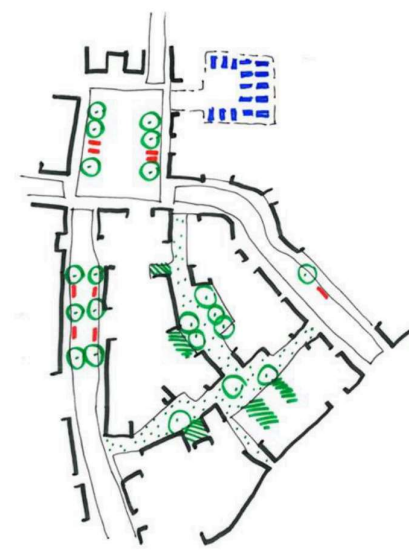
Vehicle parking demand may decrease in the future due to the arrival of new mobility means such as "Mobility as a Service" and increased use of car clubs and car sharing. The parking strategy's emphasis on off-plot

and unallocated parking enables the design of flexible parking arrangements that can be easily converted into other uses as mobility needs change.



Today

A development like Poundbury has succeeded in creating a tight, walkable urban form, in part by accommodating much of the private car parking in permeable mid-block courts and local squares



Future

The same successful urban form could be adapted in a future where far fewer people own their own cars and longer distance mobility needs are served by a shared fleet of driverless vehicles, allowing for more green space

Example of an Adaptable Urban Environment in Poundbury, Dorset (only future gains in tree planting and greenery shown, not the baseline)

Utilities and Servicing

Utilities

The integration of street trees and SuDS into the street design must take place at the earliest stages of design development and take precedence over utility routing. Wherever possible utilities must be bundled together in channels, e.g. under the footway or in a maintenance strip, to facilitate later changes to the planting arrangement of the public realm.

Design principles:

- Utility repair, maintenance and new installations **must** respect and reinstates existing pavement treatments
- Substations **must** be located in a location that can be accessed by vehicles for maintenance. Their hard-standing surface **must** be suitable for HIAB crane and maintenance vehicle.
- Where the substation is to be offset further back from the road or to have dedicated access, a 4m wide access with surface suitable for HIAB crane and maintenance vehicles **must** be provided.
- Substations **must** have unrestricted 24 hr access (so can't be located in a gated part of the site)

Best practice:

- To avoid street scars, a simple material palette **should** be chosen that consists of standard paving types rather than bespoke materials
- All public realm design **should** maximise amenity and enjoyment for all users, regardless of the constraints posed by utility easements or other servicing requirements. Compromises necessitated by infrastructure **should** not diminish the functionality, accessibility, or quality of the public realm
- A dedicated hard surfaced space **should** be provided for maintenance access to substations

Electric Vehicle Charging

Design principles:

- All houses with on-plot parking **must** have access to active electric vehicle charging points. Of all remaining parking in Village 7 (residential and non-residential) a minimum of 20% **must** have active (i.e. ready to use) charging points with the remainder having passive provision (i.e. cables in place for future installation of chargers)
- Public on-street EV charging **must** take place through private providers
- EV charging provision **must** comply with Approved Document S

Best practice:

- EV chargers in the public realm **should** be placed in the kerbside to not obstruct the footway
- Shared stands **should** be utilised to avoid street clutter
- Off-plot EV charging provision **should** either be communal (e.g. through stewardship body) or via private providers

Delivery and Servicing

To make last mile logistics more efficient and sustainable, smaller deliveries could be delivered to a small consolidation and distribution centre adjacent to the STC Hub. Residents and businesses could either pick up deliveries from a locker at the hub themselves or have them brought to them by sustainable mode such as by cargo bike by use of Village 7's dense cycle network. Similarly, the hub could also offer parcel drop-off facilities. This will reduce the number of HGVs and LGVs frequenting Village 7's residential streets. The locker must be located at the hub and designed in a way that larger vehicles such as box vans can deliver parcels to it.

Design principles:

- Street network **must** enable appropriate vehicular servicing of all properties
- Cycling network **must** be designed to enable servicing of all properties by non-standard bicycle.
- The STC hub **must** be designed so it can accommodate a parcel locker and pick-up facility that can be easily accessed by cargo bike



Example of a utilities arrangement using root cells
(Source: Green Blue Urban)



Example of on street EV charging (Source: VolkerSmart Technologies)



Example of recessed utility cover aligned with paving flags

Refuse Collection & Emergency Access

It is important adequate provision for refuse collection and emergency access is made without these provisions dominating the design and detracting from placemaking.

Design principles:

- Bin presentation points **must** be within 15m distance for two-wheeled bins and 10m distance for four-wheeled bins of a kerb reachable by a refuse vehicle
- Streets **must** be generally min. 3.7m wide (reduced to min. 3m at pinch points) for emergency access

Best practice:

- Refuse collection requirements **should** not dictate the road layout and turning heads should blend into their surroundings
- Designs **should** consider local refuse guidance