



Knowsley Council



Halsnead
**GARDEN
VILLAGE**

DESIGN AND LOCAL DISTINCTIVENESS GUIDE

July 2020



***Halsnead Garden Village and its opportunities are unique.
A strategic location with easy accessibility to the Liverpool City Region and
Greater Manchester, enhanced by a distinctive
semi-rural setting and a clear opportunity to deliver a Garden Village of
national significance.***

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Purpose of the Guide

In early 2017 Halsnead successfully obtained Garden Village status as part of the Government's Garden Towns and Villages programme. The Government expects all Garden Villages to embed Garden Settlement principles and to create great places that stand out from the ordinary. This guide will play an important role in setting out how Halsnead will respond to these requirements.

This Guide, 'Halsnead Garden Village Design and Local Distinctiveness Guide', provides parameters for the development of Halsnead Garden Village in Knowsley and it will assist all parties involved in its delivery including developers, designers and planners, to secure the objectives of the development.

Outlined within the Guide is the strategic thinking that underpins the requirements for design of streets, public realm, green and blue infrastructure which together contribute to the requisite identity and quality standards of Halsnead Garden Village. The Guide also sets out detailed requirements to achieve distinctive Character Areas and their supporting typologies and palettes of materials.

Throughout the development the historic character needs to be retained and enhanced. Vernacular features and materials are to be retained and referenced with the design of buildings and spaces to create a distinctive sense of place, which reflects the location within the historic landscape park.

Endorsed by Knowsley Council's Planning Committee, the Guide builds on and must be read in conjunction with already adopted documents including:

- Knowsley Local Plan Core Strategy (January 2016)
- Halsnead Masterplan (SPD, June 2017) (Hereafter referred to as the HSPD)
- Design Quality in New Development (SPD, January 2016)
- New Residential Development (SPD, September 2018)

Providing a basis on which development proposals will be evaluated for their compliance with the objectives and aspirations for Halsnead Garden Village, the Guide will be a meaningful tool in Knowsley Council's decision making process. This Guide will also ensure consistent outcomes across each phase of development, and its implementation will be reviewed on a regular basis.

The Guide has been subject to input from developers of the first phases of residential development at Halsnead Garden Village. It is crucial that all development proposals incorporate the information within both the HSPD and this Guide to ensure the creation of high quality, distinctive and coherent Garden Village.

National Design Guide

The National Design Guide illustrates how well-designed places that are beautiful, enduring and successful can be achieved in practice. It forms part of the Government's collection of planning practice guidance and should be read alongside the Design and Local Distinctiveness Guide for Halsnead Garden Village. The document can be found at the following web address: <https://www.gov.uk/government/publications/national-design-guide>

The Garden Village Concept

The Garden Village approach to development provides an opportunity to create innovative, resilient and socially inclusive places that reflect their local context. Developers must think holistically about how the new development will work, and the infrastructure (streets, built form, public realm, green and blue infrastructure) required to provide a successful 'place'.

Halsnead's designation as one of fourteen 'Garden Villages' to be developed in the UK, provides an opportunity and responsibility to deliver exemplary design solutions for communities.

Future communities of the Garden Village will enjoy excellent access to a diverse range of provisions, creating an opportunity for a balanced urban lifestyle that remains close to nature. Existing communities in the surrounding area will also benefit from the Garden Village with enhanced access to new recreation and amenity spaces.

TCPA Guides

The TCPA provides further guidance on the Garden City Standards, including the design and delivery of successful new communities, this can be found at the following web address: <https://www.tcpa.org.uk/guidance-for-delivering-new-garden-cities>

Halsnead Garden Village

“This will be an exemplary mixed use development that is planned, designed and executed with place-making principles at its heart. It will be the foundation to a distinct yet integrated and sustainable community.

Halsnead has capacity to deliver up to 1,600 new homes alongside substantial employment uses of a scale that will have beneficial economic impacts across the sub-region. It will integrate a new Country Park, linked by high-quality green corridors and forming part of an extensive network of connected green infrastructure accessible to the wider communities of Knowsley and the Liverpool City Region.

Existing environmental, landscape and historical characteristics will be enhanced to provide a unique setting for a great place.”

Councillor Graham Morgan (extract from HSPD)

HSPD Strategic Objectives

- SO1: A shared place-making approach
- SO2: Ensuring comprehensive development
- SO3: Diversifying the housing stock
- SO4: Enhancing connectivity
- SO5: Creating a strong green space framework
- SO6: Bringing employment opportunities
- SO7: Strengthening a community core



Illustrative Masterplan of the Halsnead Garden Village scheme (extract from HSPD)

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Achieving Distinctiveness

As described in the HSPD, the site on which Halsnead Garden Village is to be situated comprises the majority of the former Halsnead Park Estate, providing particular distinctiveness which will be a common thread linking all the character areas. Development proposals, in addition to embodying Garden Village principles, must be defined by the site's heritage and its local context, providing an identity which makes it distinctive and recognisable from other residential developments in the country.

The estate has left a mark on the local heritage and landscape. Key historic remnants remaining on site are to be retained and enhanced throughout the development. Reference must be made to the historic land uses, vernacular and materials of the local area in the detailing of the designs. This can be achieved through the built form and façades, the street typologies and arrangements, the planting and enhancement of the landscape, as well as through elements such as street furniture, motifs, and naming conventions.

Some of the historical features associated with the site's heritage that must be taken account of in development proposals include:

- Natural and semi-natural woodlands
- Water features including the impressive Big Water (originally the main ornamental lake of the Halsnead Park estate)
- Sandstone boundary wall
- Former structures (Halsnead Hall)
- Former estate driveways / lanes
- Remaining listed buildings (all Grade II)

The use of good design to make places 'memorable' can also aid orientation and navigation around the development. Creating safe, attractive and convenient environments will encourage sustainable modes of transport, making walking and cycling more favourable for all.

Coordinated application of the Guide for the entire development will allow for a unified identity throughout the Garden Village while accommodating each development's own character. The Guide is based on the HSPD and will inform variations in built form, streetscape and landscape design elements to create a coherent and distinctive development.

Garden Village Principles
+
Local Context & Heritage
=
Distinctiveness of
Halsnead Garden Village

Design Philosophy

Built form, streetscape and landscape design philosophies have been coordinated to deliver across a number of character areas. Each character area will include a mix of typologies suited to a range of housing types, commercial uses, streets and open space areas, all which reflect their individual setting and the site's heritage.

Built Form

The built form proposed for the Garden Village will reflect the site's rich heritage and surrounding context through its design. Buildings will have coherence and strength of form, and will be arranged to take advantage of existing landforms and views. Material palettes inspired by the site's heritage and the Arts and Crafts Movement have been developed and are detailed later in this Guide.

Streetscape

The streets and public realm of Halsnead Garden Village will contribute to providing a high quality residential (and commercial south of M62) environment in a distinctive setting. Material palettes inspired by the site's heritage have been developed and are detailed later in this Guide.

Landscape

Soft landscape palettes have been assigned to each character area with subtle changes to provide differentiation appropriate to their setting, and gentle transitions between areas. These are detailed later in this Guide. Certain plants have been chosen for their relevance to the site's heritage with many native plants included in the species mixes.

Character Areas

Halsnead Garden Village will provide a residential and commercial development inspired by the historic parkland setting, which enhances leisure, environmental and heritage assets of the site.

The HSPD identifies key character areas within Halsnead Garden Village which respond to the distinctive characteristics of those areas.

Three character areas for the residential development north of the M62 are shaped by their physical context and connection to the surrounding areas and shared heritage.

Halsnead South, located south of the M62, has its own character by the nature of its land use requirements and proximity to the Country Park.

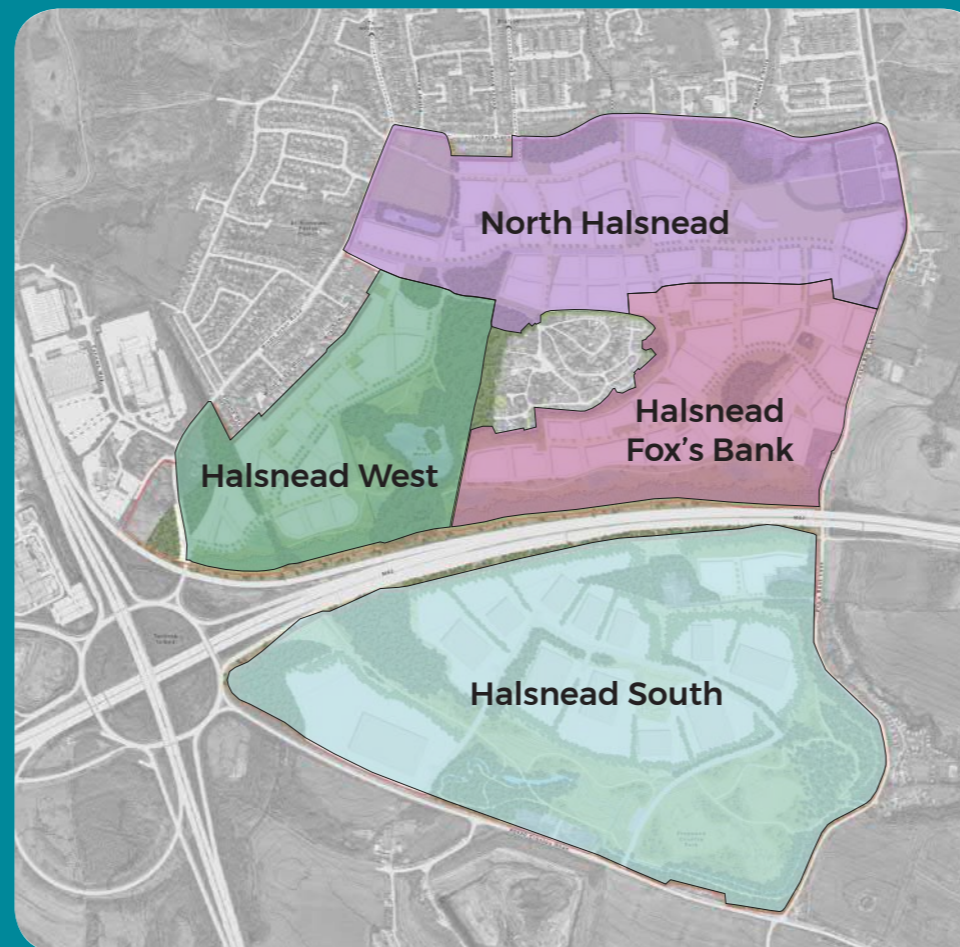
These character areas influence the variation in physical elements in the landscape used to emphasise the individual identities of each area. The place-making principles and design used for each of the character areas must ensure they are distinctive while being coordinated.

Halsnead West

North Halsnead

Halsnead Fox's Bank

Halsnead South



*Plan illustrating the Character Areas.
(Extracted from HSPD)*

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Halsnead West

The Halsnead West character area provides a distinctive entry to the site from the M62 Motorway. Its prominent interface with Big Water and existing woodland areas create ample opportunities to take advantage of these historic landscape features by enhancing amenity space through a variety of types of recreation spaces.

North Halsnead

The North Halsnead character area forms a gateway into the residential core of the Garden Village and a strong interface with the existing community of Whiston. This area includes strategic opportunities to develop a 'community core' at the junction of the main streets and a strong multi-functional space around a new school.

Halsnead Fox's Bank

A less formal development and broader open space with pedestrian and cycle connections to Big Water and beyond, characterises this area. The area is defined by its valuable historic features and its proximity to the more rural landscape to the east. Appropriate screening vegetation is needed to ensure a sensitive interface between this character area, Halsnead Park and the M62 Motorway.

Halsnead South

The Halsnead South character area accommodates business, industrial, logistics and some residential activities, providing local employment to the Halsnead communities and broader surrounding contexts. Given its proximity to the proposed Country Park, the area will be defined by a strong landscape focus that will aim to enhance open space areas and streetscapes through visual cues to historic landscape features and remnants of former iconic land uses.

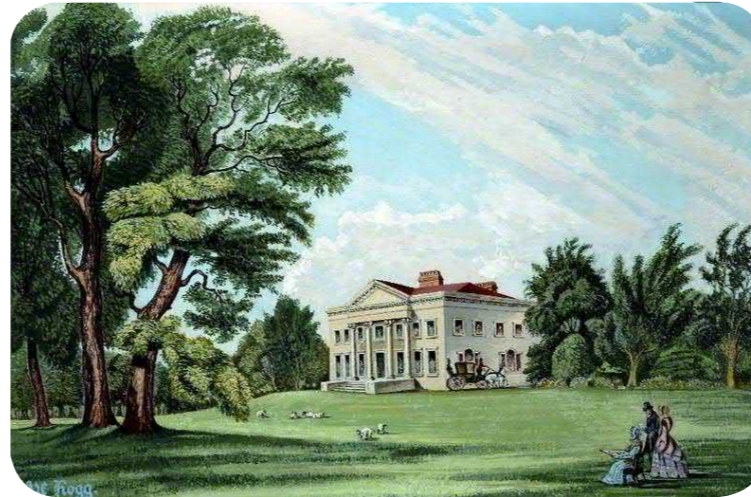
Design Philosophy

Clusters of new built form will be set within a network of green corridors and environmental features providing an attractive setting to live, work, and play. All new built form must conform to guidance set out in the HSPD and other KMBC SPDs.

Proposed buildings and structures must reflect the site's rich heritage and local vernacular through their design and materials. At entrances, overlooking open spaces and at nodes additional detailing should be included to enhance these key places. It is recommended that inspiration also be drawn from 'arts and crafts' architecture, particularly in lower density areas, while in higher density spaces a more contemporary approach to detailing would likely be appropriate. The use of 'character areas' is required, whereby within each parcel different areas and spaces utilise distinct contextual characteristics to aid wayfinding and add interest.

All new buildings and structures shall be designed to be appropriate to their setting i.e. their proximity to listed buildings, gateways, the character area and street typology within which they are situated. The design and layout must take advantage of existing landforms and views, and integrate and enhance historic features where possible. Interesting views should also be created through the layout of built form to aid orientation and wayfinding around the development.

Developers will need to take account of built form design of adjacent development plots to ensure the delivery of a comprehensive, cohesive and distinctive Garden Village.



Halsnead Hall by Alfred Hogg (1908-1986)



Halsnead Park Estate Lodges



Halsnead Park Estate Vernacular Cottages

Historic Built Form

Much of the built form which characterised the distinctive historic use of the site from several periods of history has now been demolished. However, there are several features on site that remain, some of which are listed.

Most notably this includes features associated with Halsnead Park Estate, the agricultural history of the area and additions related to coal mining. Historic landscape features are discussed in a later section of this Guide.

Listed buildings must be retained and new development should be designed and arranged such that it does not harm their settings. Non-designated historic features, such as the stone estate wall and structures associated with Princes Farm should be retained, re-used and enhanced where appropriate, and incorporated sensitively into the development.

In designing new gateways through the original boundaries of the Estate, inspiration should be taken from the arrangement and details of the historic entrances and lodges. Buildings and features at gateways could include angled chimneys/gothic detailing, for example.

Historic views and vistas are likely to merit particular consideration and should inform the design, layout and structure of the development. Built form should be used to frame views to and through the parkland landscape, and enhance legibility.

Proposed Built Form

Streets should be designed coherently, and to reflect their place in the overall hierarchy. Within that framework developers should adopt a creative approach in designing streets using building forms, plot layouts, architectural detail and materials to create distinctive places that reflect their particular context.

Building Lines

Building lines (set backs) of new properties should have a good level of continuity and consistency on all streets, especially in areas of higher density. This will provide sufficient enclosure while at the same time giving a sense of balance. Some variation in building lines is likely to be acceptable provided a clear pattern is established and that it responds to the particular setting. Less formal arrangements are more likely to be acceptable in areas of lower density and where buildings front on to open space.

Corner Plots

Properties on corner plots should be dual-fronted and designed so that they aid way-finding and enhance entrances and junctions. L-shaped buildings are useful for such locations as they promote continuity of the built form and an active frontage around the corner and framing of the street. Carefully designed corner plots will increase safety through natural surveillance by ensuring that there are windows on both the front and side elevations of the building. A subtle increase in height or use of interesting features on properties at these locations should also be incorporated into the proposed development.

Sketch of indicative housing plot demonstrating designed features reflecting historic and existing local vernacular as well as Arts and Crafts architectural style.

- 1 Feature chimneys
- 2 Feature windows, with plain squared sills and lintels
- 3 Feature porches & doors
- 4 Feature gables with decorative brick course / bargeboards
- 5 Large front garden with tree planting
- 6 Hedge boundary
- 7 Planted verge (Lanes)



Corner turning unit designed with dual frontage and strong fenestration overlooking both streets.

Proposed Built Form

Building Heights & Roofscape

There should be a gradient in building heights throughout the Garden Village which responds to the particular street typology and location.

Building heights will range from 2-4 storeys on the Main Streets, 2-3 storeys on the Residential Avenues, 2-3 storeys on the Access Streets and 2-2.5 storeys on the Lanes.

Taller buildings, particularly townhouses and apartments are more suited to the area around Lickers Lane. This type of building will also be suitable for the confluence of the main streets as well as fronting on to the village green.

Roof slopes, gables, dormers, chimneys and other appropriate skyline features should be included within the building design to provide further interest, however these must maintain a sense of coherence.

Although developer house types vary in form, roof pitches and profiles should be coordinated along streets so that there is both consistency and variation that provides a sense of coherence.

Variation in ridge lines should be done in response to the particular location, for example a group of properties with a stepped-up ridge line can emphasize a nodal location.

There can be varying heights within each 'block' however the roofscape must overall generate a pleasing appearance. There must not be random variation with large differences in ridge heights of individual buildings as this does not create a sense of overall composition.

Courtyards

The areas within close proximity to Prince's Farm provide key opportunities for interesting built form layouts.

Design proposals here should look to create courtyard spaces with simple high-quality detailing that tie in with the existing and historic environment, as well as instil a distinctive and pleasant 'Home Farm' character.

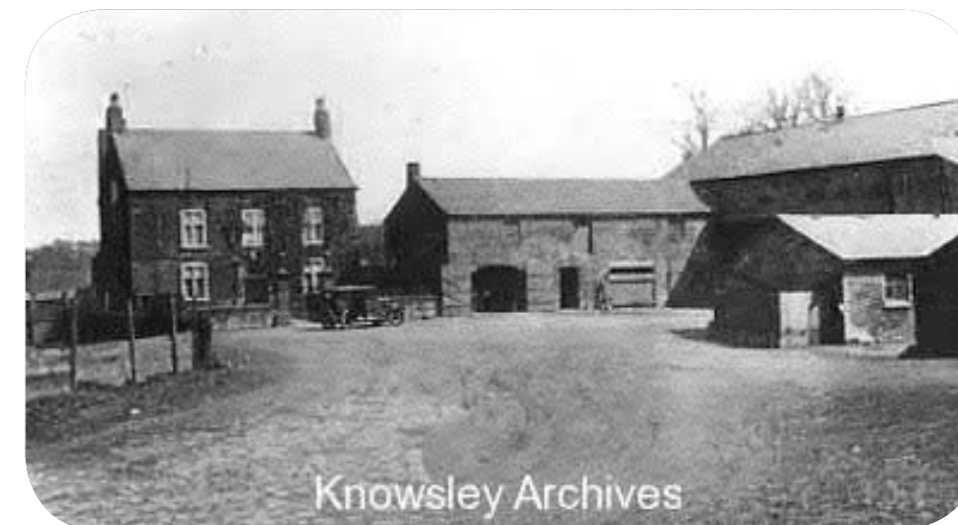
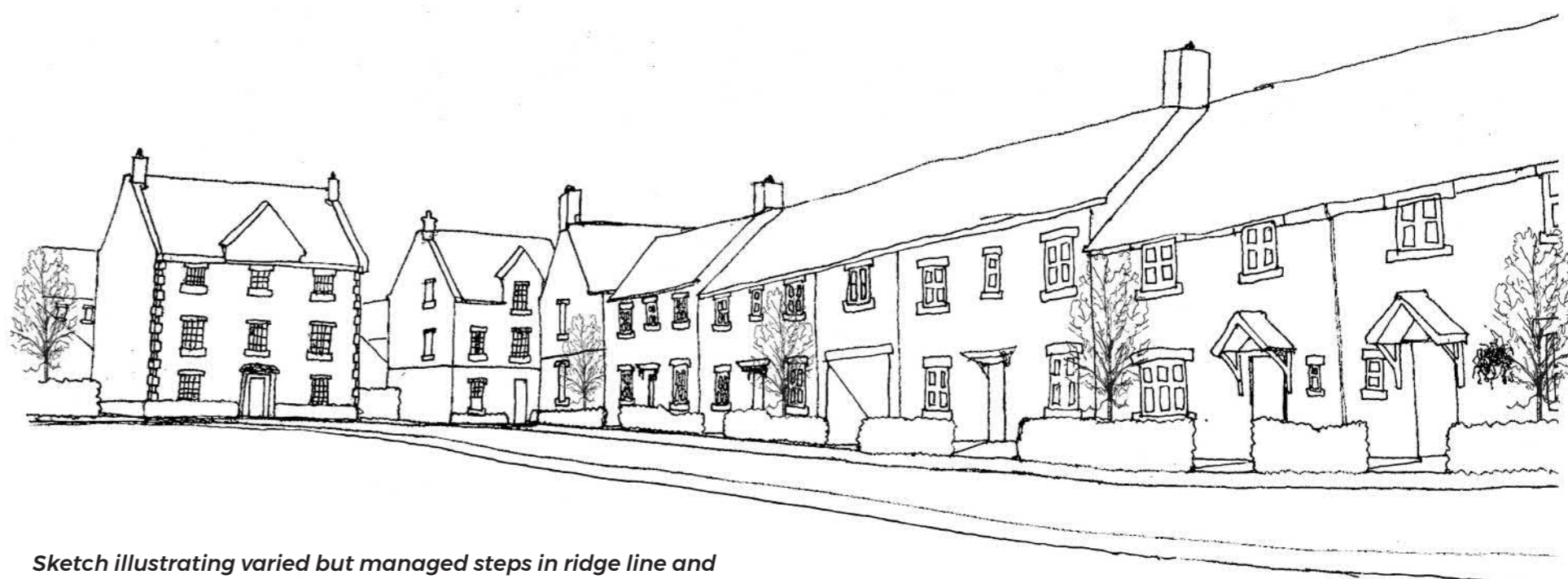


Image of a cluster of farm buildings on former Halsnead Estate.



Sketch illustrating varied but managed steps in ridge line and handled in groups taking advantage of the existing topography without the need for retaining structures. Significant shift in scale to help turn corner, define nodal point and look onto open space. Ordered and legible overall composition.

Built Form Materials Palette

Buildings and structures across Halsnead Garden Village will draw upon a common palette of high-quality materials as detailed in this section.

The materials palette has been derived from an analysis of the site's historic built form and existing vernacular of the surrounding area, combined with inspiration from the Arts and Crafts Movement. Choice of materials should be based on this Guide as well as considering the Halsnead Estate and local area vernacular.

Existing built form consists of a dispersed pattern of farmsteads and wayside dwellings. These are predominately red brick with slate roofs, but there are also properties with red sandstone. Also on site are several former lodges of the Halsnead Park Estate which feature attractive stone walls, windows, and chimneys.

It is critical that a holistic and coherent approach is taken to the materials used. Developers are to take account of neighbouring plots in their designs as this will establish a comprehensive and cohesive development with a unique identity and a distinctive sense of place in keeping with the overarching Garden Village character.

The use of materials and variation of them is to be appropriate to the setting i.e. their proximity to listed buildings, the character area and street typology within which they are situated. All buildings and structures will be of a high quality and appropriate to their setting.

Housebuilder covenants relating to the retention of designed features should also be considered.

Residential Buildings

Walls and Elevation Materials

- Natural stone to match local sandstone palette
- Brick to be largely in red tones
- Render to be muted tones and rough cast
- Materials and colour to be consistent across connected elevations, street scenes and adjoining development parcels

Roofscape

- Roofscape materials, colour, pitch orientation and ridge heights to be consistent across connected elevations, street scenes and adjoining development parcels
- Use of small format tiles to emulate traditional plain clay tiled appearance and / or traditional slate roofs for example Weinberger Sandtoft plain roof tiles either, 'Dark Heather' (smoothfaced), 'Sandown' (sandfaced), or 'Dark Grey' (smoothfaced)
- Roof detailing to include bonnet tiles of hips, valley tiles, special tiles and mortared verges to ensure a high quality and consistent finish
- The design of bargeboards and eaves should enhance the character of new dwellings

External Pipework

- The design of external pipework including its colouring can have a marked effect on the appearance of buildings
- The design and finish of external pipework should be considered as part of the design
- Rainwater goods in particular can add to architectural interest

Boundary Treatment

- Hedgerows are to be planted to front and side gardens and driveways in accordance with the planting scheme for each Character Area
- Masonry walls should be softened with planting to the front
- Red sandstone walls to reference local vernacular
- Timber fencing should not be a prominent element in the streetscene and other prominent locations
- Where timber fencing is used it needs to be treated and stained in a brown colour

Meter cupboards

- Should be discreetly located on elevations that are not prominent

Cycle Shelters & Bin stores

- Apartment blocks should incorporate cycle parking within the building envelope.
- Bin stores should be located conveniently and discreetly
- For houses with private gardens, the garden must be of sufficient size to accommodate all necessary bins so that they are not obtrusive or detrimental to the street scene, and a shed incorporating space to store cycles, without impinging on amenity value

Driveways

- As per Street Typologies Section

Commercial Buildings

- Design details and materials to reference the mining heritage of this character area (South Halsnead)
- All structures to be powder coated, galvanised finishes are not acceptable.

Cycle Shelters & Bin stores

- Designed as an integral part of the building, or provided as purpose built structures softened with a hedge
- Metal work to be finished black

Security lodges

- Designed as an integral part of the development

Security fencing

- Weld mesh or vertical bar fencing to be powder coated in green.

The streets and public realm of Halsnead Garden Village will contribute to providing a high quality residential (and commercial south of M62) environment in a distinctive setting.

The layout and treatment of the internal infrastructure and the promotion of public transport can aid navigation around the development and draw people to the Country Park, amenity areas, and community-focussed spaces. This also ensures convenient access to established local facilities and employment.

The design philosophy should directly reference the historic parkland landscape. There is a key opportunity to enhance or reinstate the historic routes and lanes that served the former Halsnead Hall, allowing these to continue to be a distinctive feature of Halsnead Garden Village.

Place-making principles ensure appropriate treatment is applied to a hierarchy of proposed streets, with a focus on a positive experience for pedestrians and cyclists. Successful implementation can create a safe, convenient, attractive place encouraging sustainable modes of transport.

At Halsnead, the overarching Garden Village character will be expressed in the careful arrangement of buildings and through the street hierarchy with specific and varied landscape elements in the streetscape that will contribute to the site's green assets.

Elements are to include formal tree planting balanced with tailored geometric alignments, street elevations, common materials palette and consistent boundary treatments. The urban design and landscape characteristics of each street type will be tailored to Halsnead to allow it to flourish as a distinctive and coherent Garden Village.

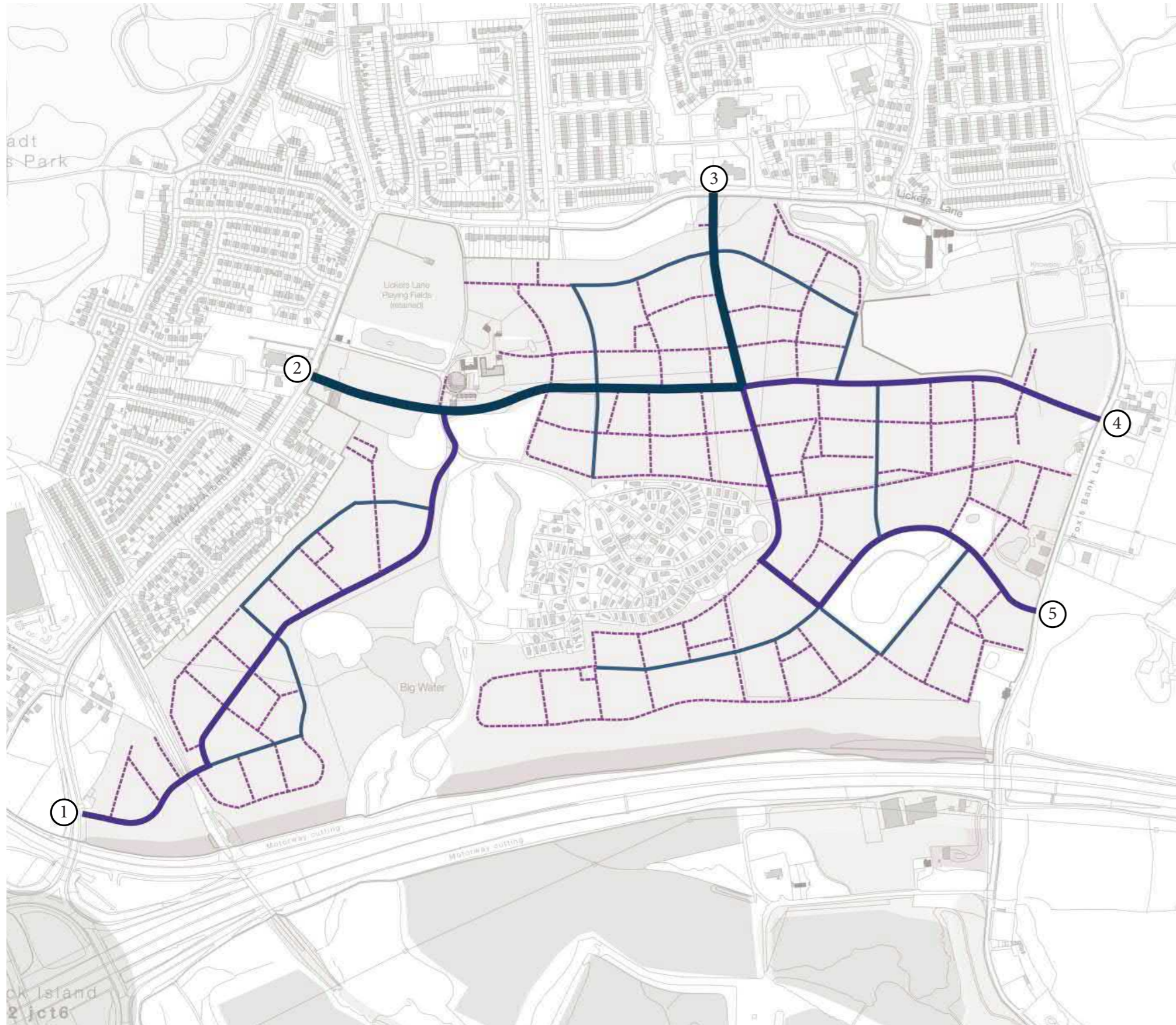
Landscaped areas within the streetscape are to be robust. It is particularly necessary to reinforce grass verges in sensitive locations i.e. at junctions to ensure their longevity. All hedgerows adjoining the public highway must be of a maximum 0.60m height to ensure compliance with highway safety in Manual for Streets.

Proposals must also comply with the KMBC Waste and Recycling Collection Policies (2018)

This chapter of the Guide describes the streets and public realm typologies and palettes that will be used for the development of the Halsnead Garden Village.

This includes the following:

- Street typologies
- Junction typologies
- Bus stops
- Traffic calming
- Crossings
- Parking
- Street material palette
- Lighting
- Street furniture
- Way-finding signage
- Retaining features



Residential access points north of M62

- ① Windy Arbor Road (South), close to Tarbock Island
- ② Windy Arbor Road (North), opposite St Nicholas Parish Church
- ③ Lickers Lane (East), opposite George Howard Community Centre
- ④ Fox's Bank Lane (North), south of the cemetery
- ⑤ Fox's Bank Lane (South), south of Cherry Tree Farm

	Main Street	Primary
	Residential Avenue	
	Access Street	Lower order: Indicative
	Lanes	
	Access Points	

Plan illustrating Indicative Residential Street Hierarchy. (Extracted from HSPD)

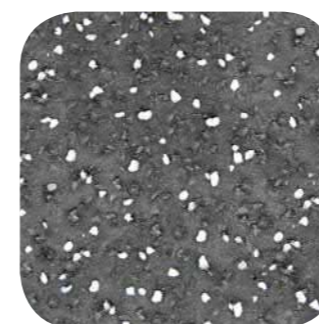
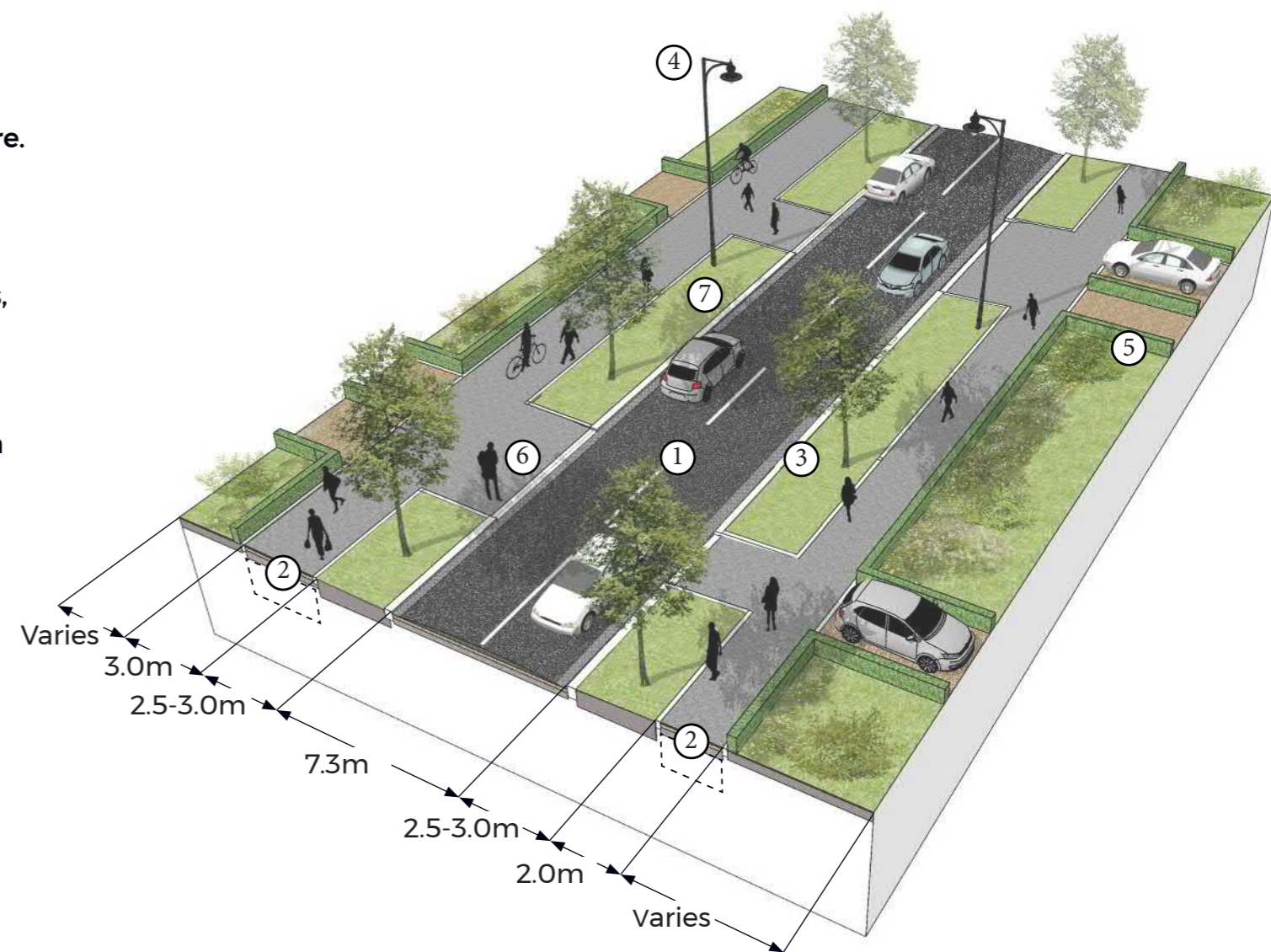
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Street Typologies

Main Street

This street typology evokes a formal boulevard effect that leads to the heart of Halsnead Garden Village. It forms the main connections to and from existing surrounding infrastructure.

- ① The main street is a 7.3m wide carriageway with a full-kerb upstand along its edges except at vehicle crossovers/accesses. It is the only street typology to have centre line marking, and that incorporates a channel of silver/grey granite block paving at the edges, along the whole length of the street.
- ② Due to the potentially high volume of traffic on this street, a shared/combined 3m wide footway/cycleway is located on one side of the carriageway, and on the other side is a 2m wide footway. Underground services will be beneath these areas. The footway/cycleway will be level with no dropped elements.
- ③ Surface water run-off from carriageways will flow into roadside channels. Grass verges and an avenue of large tree species will be located between the pedestrian footway and carriageway to provide increased environmental and aesthetic benefits. These will similarly assist in the capturing of surface water run-off by increasing the amount of permeable surfacing across the streetscape.
- ④ Adding to this formal boulevard effect, street lighting on the main street is the only typology which comprises a series of symmetrically placed columns with luminaires on brackets located at the back of footway to efficiently illuminate the full width of the street-scene. (Refer to Lighting chapter for further details).
- ⑤ Properties and their front gardens, are to be framed by a structured hedgerow, which provides a degree of separation from the street-scene, as well as a softening of these connections. Hedgerows will also be used to separate driveways that are next to each other. (Refer to Plant Species chapters for further details).
- ⑥ Vehicular access to properties are via cross-overs to the footway/cycleway, and are of the same surface material as the footway/cycleway. These also provide convenient places for pedestrians and cyclists to cross the street.
- ⑦ On street parking is to be provided only if required in the form of short dedicated bays off carriageway defined by kerb build outs and softened with planting. Maximum of four continuous spaces per bay on the main streets, to help manage visual impact and limit impediments to access, junctions and crossing points. Parking bays should be staggered along the street, not directly across from each other.



Carriageway



Kerb & Block Paving Channel



Footway



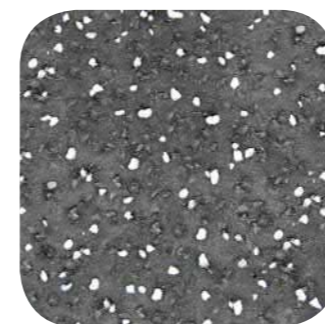
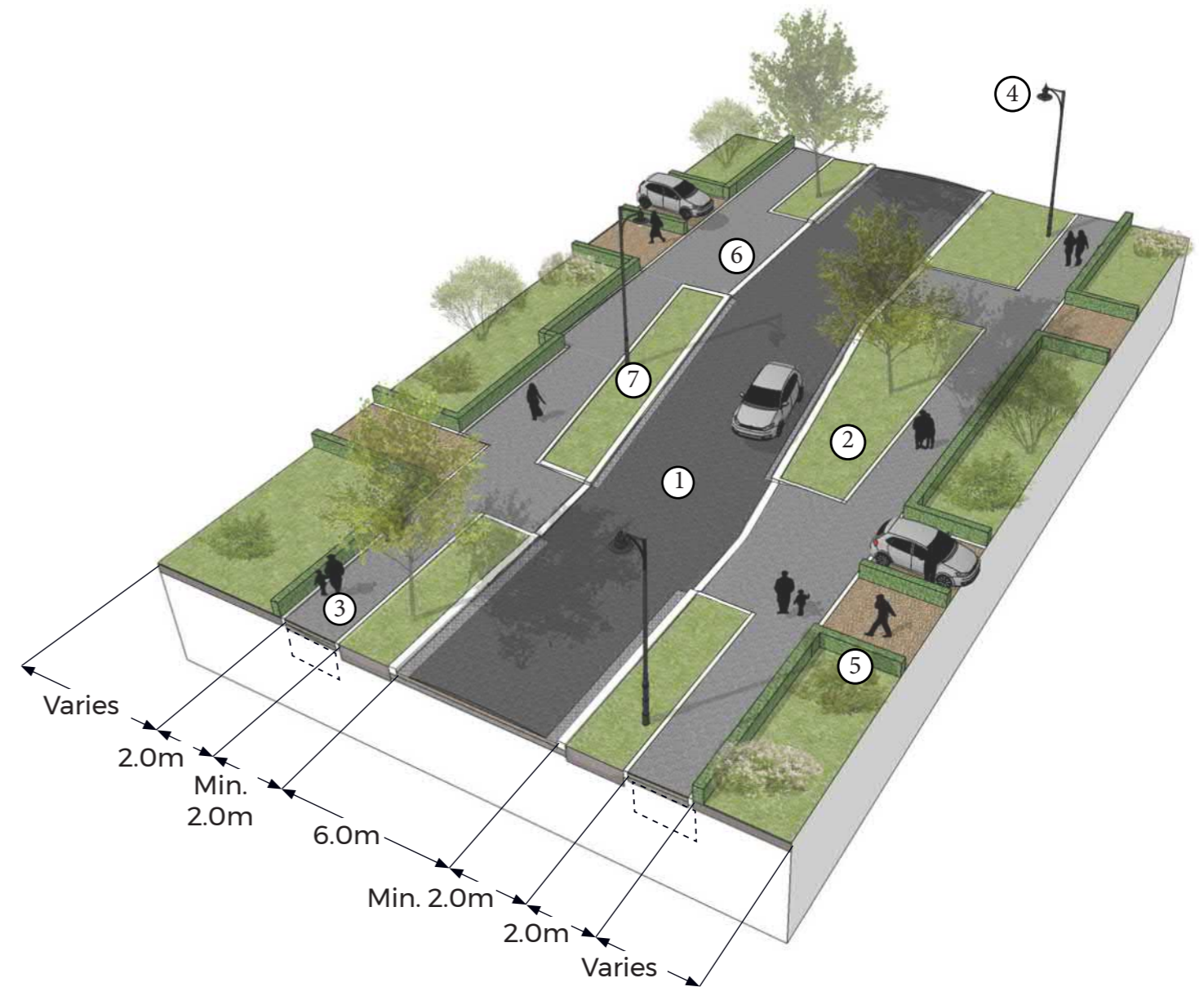
Driveway

(For detailed materials specification, refer to Street Material Palette later in this guide)

Residential Avenue

This street typology provides key connections from the Main Streets to the residential areas. The key difference between the Residential Avenue and Main Street is that the former is less symmetrical and of a less formal layout to the latter and includes the following elements:

- ① The residential avenue is a 6m wide carriageway with a full-kerb upstand along its edges except at crossovers. It has been designed to include subtle speed calming measures such as a varying carriageway alignment and the intermittent use of silver/grey granite block paving at the edges of the carriageway which give the effect of a narrower carriageway width.
- ② Surface water run-off from carriageways will flow into roadside channels. Grass verges will be located between the pedestrian footway and carriageway to provide increased environmental and aesthetic benefits to low and high density residential roads. These will similarly assist in the capturing of surface water run-off by increasing the amount of permeable surfacing across the streetscape.
- ③ On both sides of the carriageway is a 2m wide footway where underground services will be located.
- ④ Street lighting consists of a staggered series of post-mounted luminaires of pedestrian scale. These are located at the back of footway to ensure the full width of the street-scene is lit efficiently, without obstructing pedestrian flow on the footway. (Refer to Lighting chapter for further details).
- ⑤ Properties and their front gardens are to be framed by a structured hedgerow which provides a degree of separation from the street scene, as well as a softening of these connections. Hedgerows will also be used to separate driveways that are next to each other. (Refer to Plant Species chapters for further details).
- ⑥ Vehicular access to properties are via cross-overs to the footway, and are of the same surface material. These also provide convenient places for pedestrians to cross the street.
- ⑦ On street parking is to be provided only if required in the form of short dedicated bays off carriageway defined by kerb build outs and softened with planting. Maximum of six continuous spaces per bay on the residential avenues, to help manage visual impact and limit impediments to access, junctions and crossing points. Parking bays should be staggered along the street, not directly across from each other.



Carriageway



Kerb & Block Paving Channel



Footway



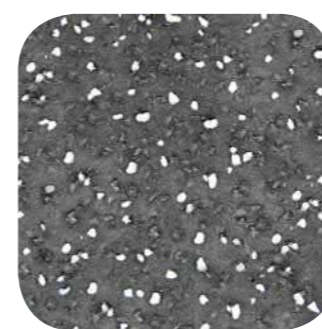
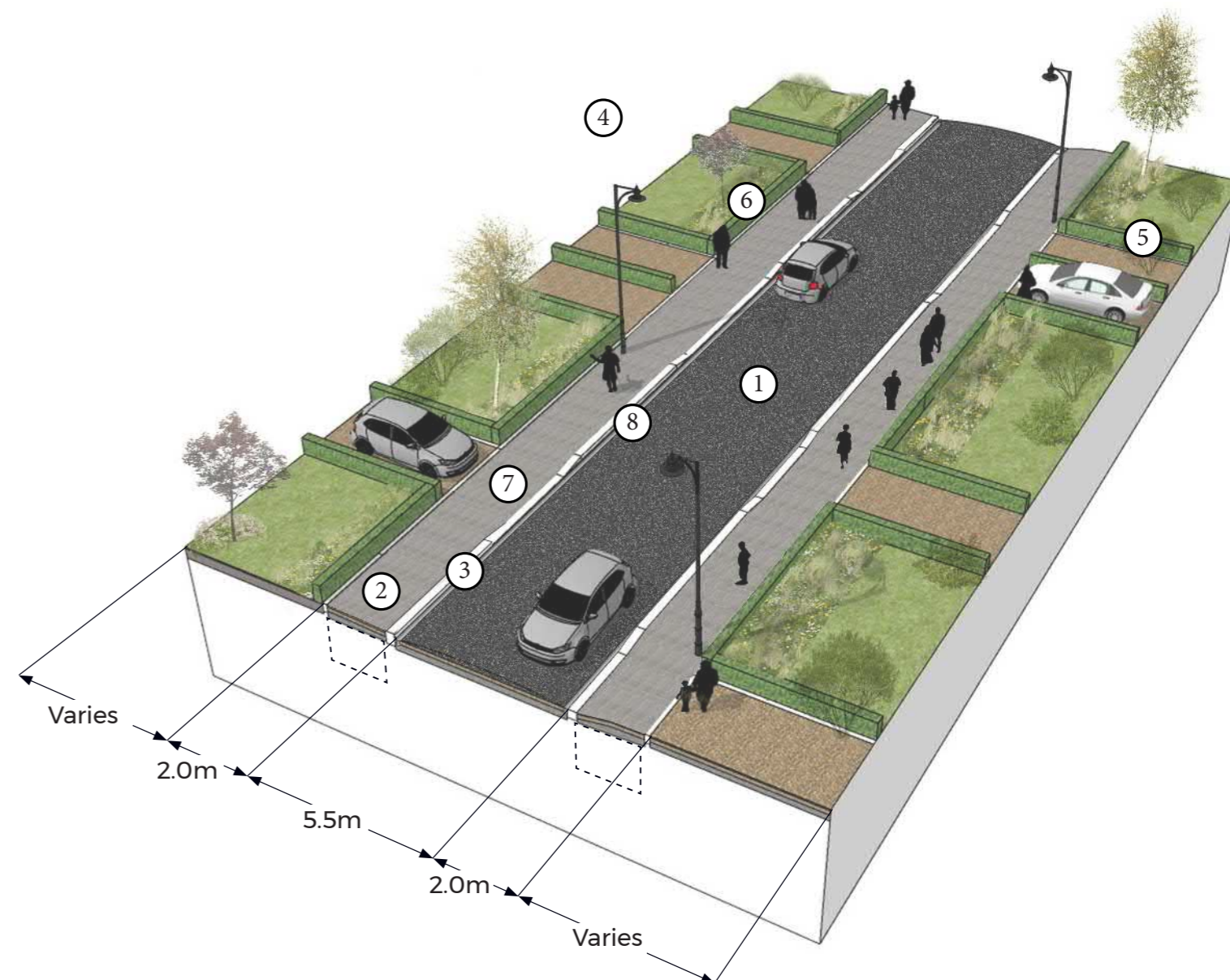
Driveway

(For detailed materials specification, refer to Street Material Palette later in this guide)

Access Street

This street typology is applicable to low traffic volume areas of the development, providing access to residential properties. It comprises the following elements:

- ① The access street has a reduced carriageway width of 5.5m which promotes slower vehicle speeds providing a safer and more pleasant experience for pedestrians and cyclists. This street typology also has a full-kerb upstand along the carriageway edges except at crossovers.
- ② On both sides of the carriageway side is a 2m wide footway where underground services will be located.
- ③ Surface water run-off on the Access Street will flow into drainage gullies along the edges of the carriageway and into the main drainage system.
- ④ Street lighting comprises a series of post-mounted luminaires of an appropriate proportionate height located at the back of footway to efficiently illuminate the full width of the street-scene. (Refer to Lighting chapter for further details).
- ⑤ Front gardens to the properties include mixed species of plants and trees that reflect the character of the area to ensure a visual and textural variety at the street edge.
- ⑥ The gardens and driveways are to be framed by a structured hedgerow which provides a degree of separation from the street-scene as well as a softening of these connections. Hedgerows will also be used to separate driveways that are next to each other. (Refer to Landscape section for further details).
- ⑦ Vehicular access to properties are via cross-overs to the footway and are of the same surface material. These also provide convenient places for pedestrians to cross the street.
- ⑧ On-street parking is to be informal. Cars to park at the edge of the carriageway. Dedicated parking bays could be included on the access streets, with a maximum of six continuous spaces per bay, to help manage visual impact and limit impediments to access, junctions and crossing points. Dedicated bays should be staggered along the street, not be directly across from each other. Parking should also have a traffic calming effect.



Carriageway



Kerb



Footway



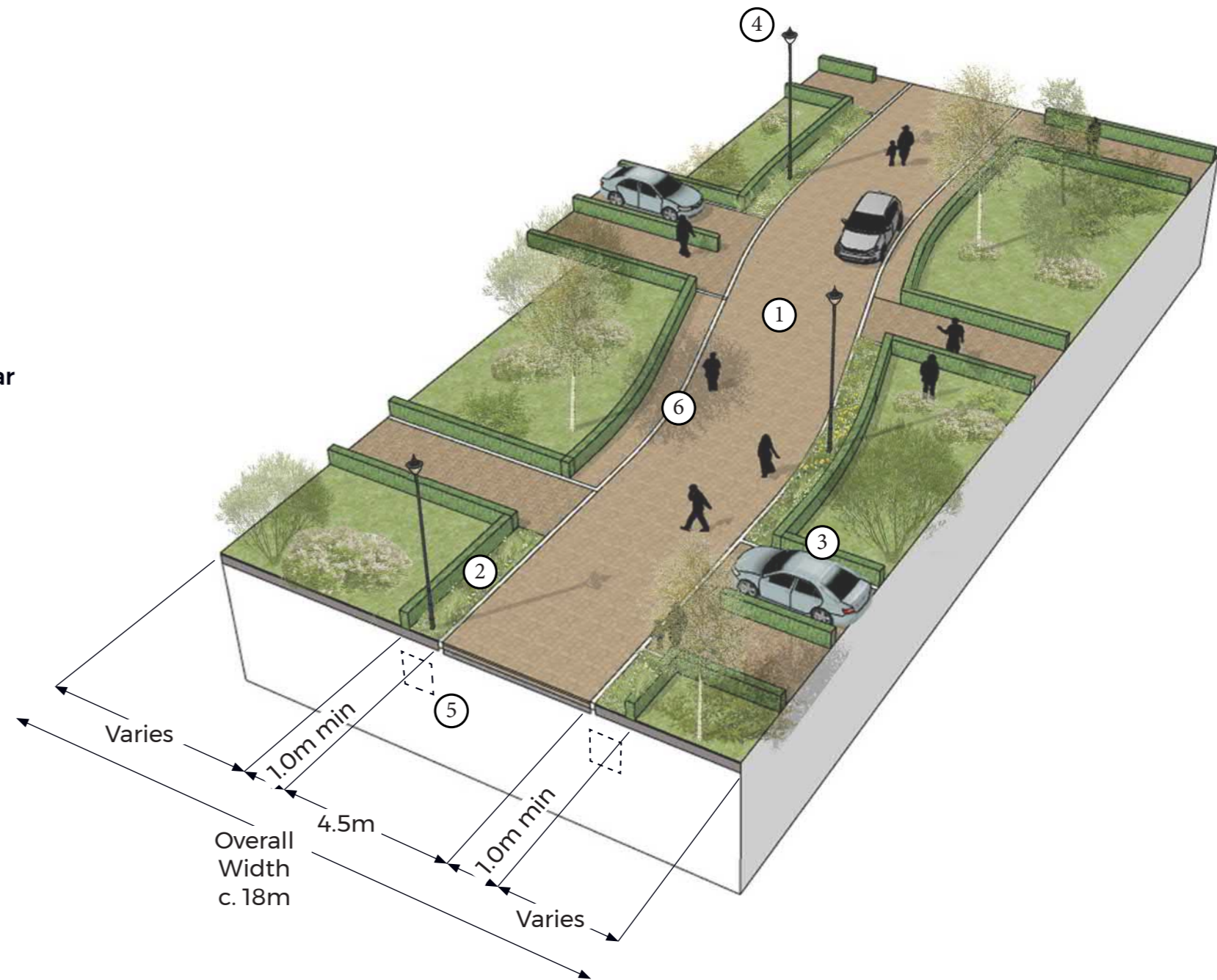
Driveway

(For detailed materials specification, refer to Street Material Palette later in this guide)

Lane

This street typology is applicable to the finer grain of the development's network where traffic volume is minimal, allowing pedestrians and cyclists to move freely. It includes the following elements:

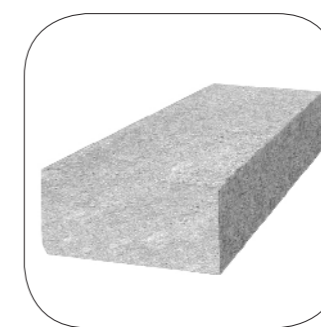
- ① The lane comprises a 4.5m wide paved surface with a low-kerb upstand along its edges. Levels of all hard surfaces and planting areas on the lane are of a very similar height which helps to create a uniform space. The lanes should not be straight to promote intrigue and ensure slow, courteous behaviour. The lane also has a different surface material to the other street typologies.
- ② Planting to discourage parking in the verge. This informal setting features a series of neatly arranged planted verges either side of the paved surface. Species reflecting the particular character of the area are to be incorporated within the verges to provide environmental and aesthetic benefits to village living / low density residential lanes. These will provide increased permeability to the street, alongside channel systems that capture the majority of surface water run-off.
- ③ A linear hedgerow will separate the front gardens of the residential properties from the verge and paved surface. These hedgerows will also be used to separate driveways that are next to each other. (Refer to Plant Species chapters for further details).
- ④ Street lighting consists of a staggered series of post-mounted luminaires of an appropriate proportionate height located in the planted verges to minimise carriageway obstacles and to ensure the full width of the street-scene is lit efficiently. (Refer to Lighting chapter for further details).
- ⑤ Underground services will be located below the verges and these areas must have a minimum width of 1m.
- ⑥ On-street parking bays in service strips on alternate sides of the road are to be provided where necessary to create a chicane effect while maintaining enough space to pass parked vehicles. A swept path analysis for the largest vehicles that could use the street i.e. large refuse vehicle or similar with 0.5m clearance between swept path plot and parked vehicle and kerb lines is to be conducted. Planting in verges should deter parking on verges. Build outs of the planted verge (including trees) should be incorporated on the lanes to support traffic calming and the overall landscape.



Carriageway



Carriageway



Granite Kerb
(Low upstand)



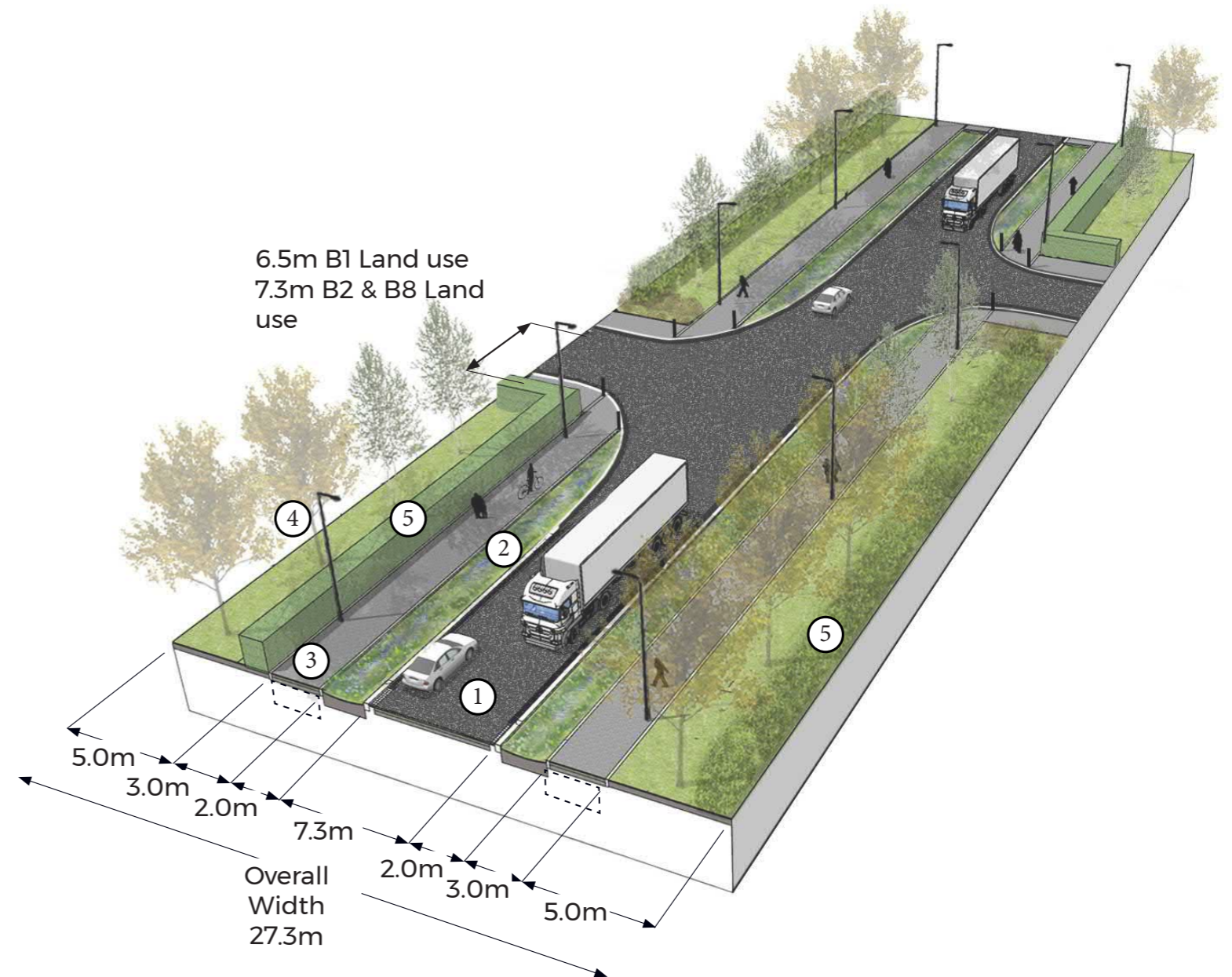
Driveway

(For detailed materials specification, refer to Street Material Palette later in this guide)

Commercial Street

The commercial streets have fewer interruptions along the footway compared to those in residential areas. This provides an opportunity to create a green corridor characterised by bold and largely connected green infrastructure, comprising the following elements:

- ① Having a total width of 7.3m, the commercial street carriageway is of an appropriate width for the volume and type of vehicles accessing this area, with a green verge of a generous width either side.
- ② The green verge features swales with low maintenance planting to provide a degree of physical and visual separation for pedestrians from the carriageway and capture surface water run-off.
- ③ A shared footway/cycleway is provided on at least one side (depending on plot layouts) of the carriageway to accommodate pedestrians and cyclists. Underground services will be located beneath these areas.
- ④ Street lighting comprises a series of columns with luminaires on brackets located at the back of footway to efficiently illuminate the full width of the street-scene. (Refer to Lighting chapter for further details).
- ⑤ Properties on this street typology are to be screened from the street by a variety of vegetation to soften the appearance of the built form. This includes a hedgerow with tree planting either in front of, or behind it.



Carriageway



Kerb



Footway

(For detailed materials specification, refer to Street Material Palette later in this guide)

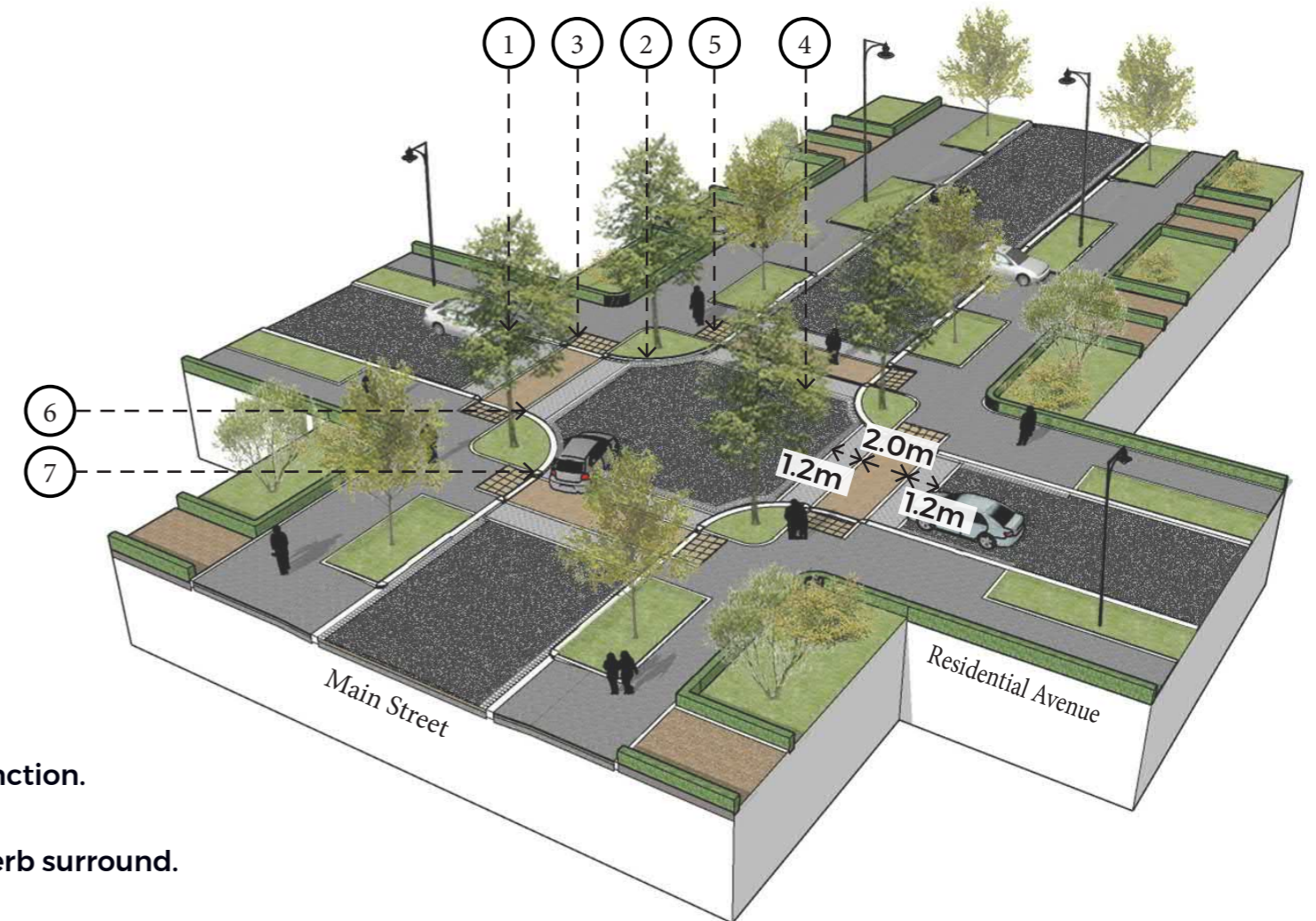
Junction Typologies

The junction typologies are used to connect the streets, and to calm vehicular traffic. They play a vital role in the legibility of the site, with some of them being key gateways into Halsnead and the different Character Areas.

Main Street/Residential Avenue & Main Street/Access Street

These typologies give examples of a cross road junction. Courtesy crossings, with tactile paving for the partially sighted, are provided on each arm to encourage drivers to give way to pedestrians wanting to cross. This, combined with block paving on either side of the crossing, tight corner radii (vehicle tracking to be confirmed at detailed design), and the silver grey granite block paving trim make the junction feel smaller and encourage slow vehicular movements through the junction.

These junctions are also landmarks, each junction has a tree on each corner. The trees at the junctions are different species and considerably larger to those on the intersecting streets. The details of the appropriate species choices are in the Landscape and Planting chapter.



- ① Tree to increase in height at junction.
- ② Grassed tree pit with granite kerb surround.
- ③ Tactile paving at courtesy crossing.
- ④ Silver / grey granite block paving before and after courtesy crossing.
- ⑤ Courtesy crossing.
- ⑥ Silver / grey granite trim.
- ⑦ Tight radii on the corners of the junction.

Junction Typologies

Main Street/Lane & Access Street/Lane

This junction typology refers to access to a lane from a main street and access street. In these situations, the junctions are generally staggered and access into the lane is across the raised footway.

This type of layout is typically known as a Copenhagen crossing, and suggests a strong priority to pedestrians walking across the lane.

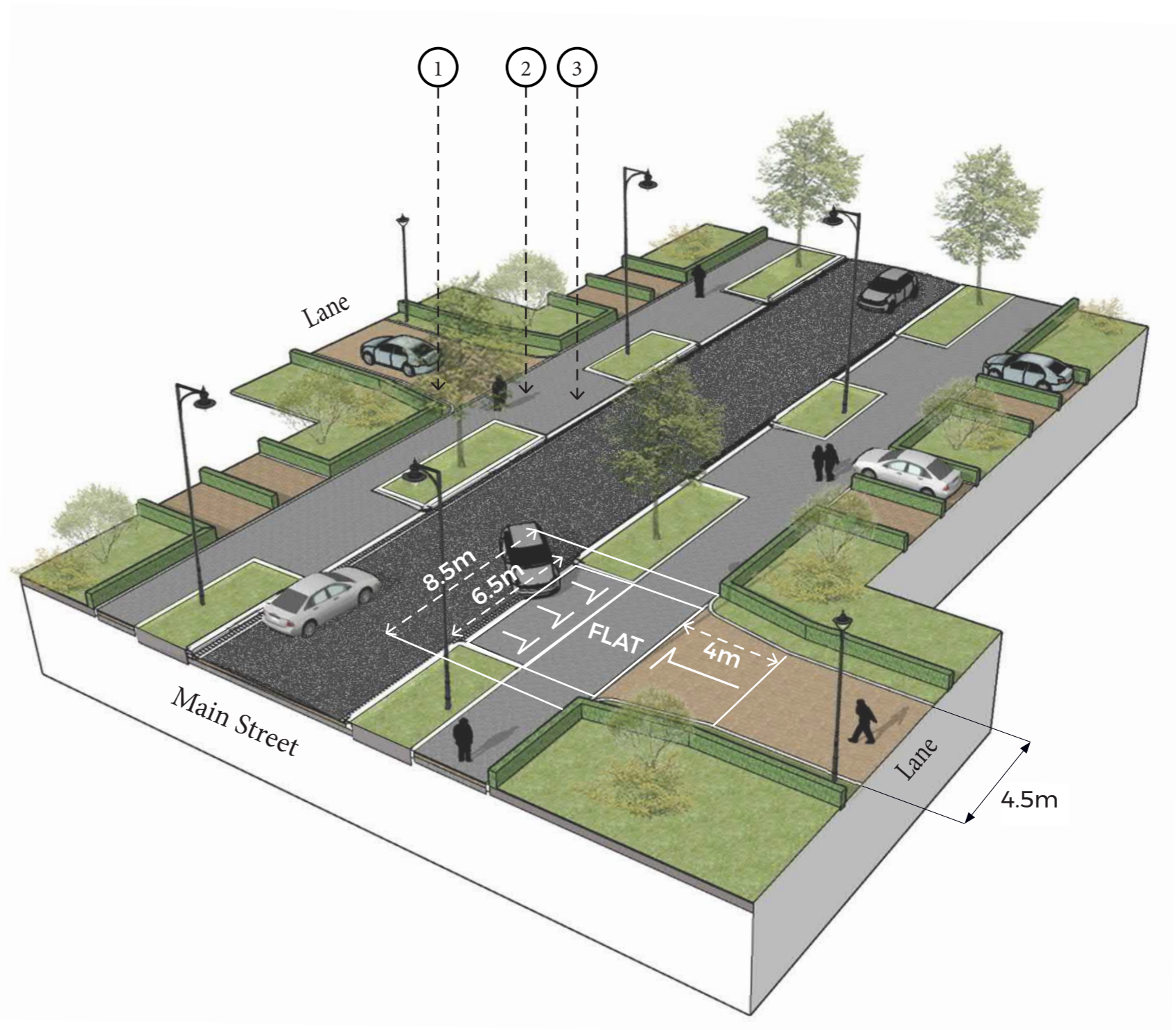
Slope gradients depicted on the adjacent image through slope symbols, should be no steeper than 1:20. This is to provide inclusive access and to prevent the grounding of vehicles as they go over the raised footway.

Quadrant corners are to be used instead of radial kerbs on the carriageway edge to encourage slow vehicle movements into the lanes. The lane entrance is also flared to accommodate tracking movements.

The adjacent illustration is for diagrammatic purposes only and minimum spacing between junctions will be dealt with on a case-by-case basis.

- ① Flared access to lane.
- ② Footway to continue across lane access.
- ③ Extra wide break in grass verges with dropped kerb and quadrant corner to provide access to lanes.

⌊ Maximum 1:20 slope gradient



Junction Typologies

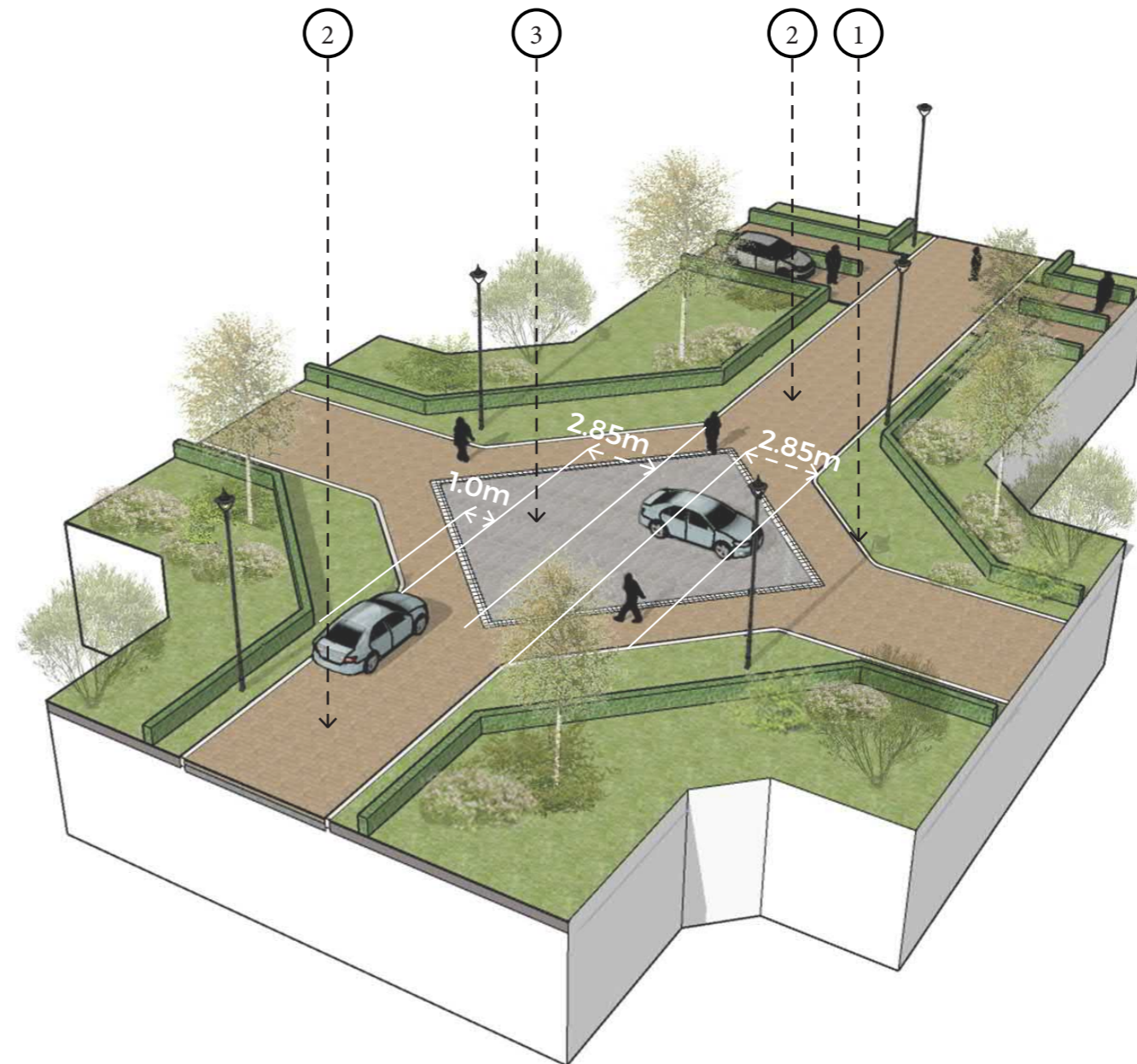
Lane/Lane

This junction typology shows an example of how two lanes intersect.

Typically, the building frontages are aligned but the public highway alignment will be slightly staggered, to deter drivers moving straight across the junction.

In addition, the centre of the junction has a paving feature which will also encourage drivers to stop, before exiting their access.

The junction corners are splayed to allow larger tracking movements to turn into the lane. However, these are kept tight as possible, and if required larger vehicles can use the full width of the space to make required movements.



- ① Splayed corners.
- ② Staggered lanes on either side of the junction, but building lines remain aligned.
- ③ Central paving feature with contrasting surfacing (Final design to avoid weak points where materials meet e.g. avoid cutting block paving).

Street Features

Bus Infrastructure

Merseytravel and the Local Planning Authority will require early consultation with developers regarding bus routes and stops, design of shelters, signage and kerbs. These features will need to be sympathetic to the overall character of the Garden Village. The bus stop markings will be accommodated within the carriageway not as lay-bys. Further details of bus infrastructure can be found in the HSPD.

Informal traffic management

Some locations may require interventions to prevent parking in undesired areas or vehicle overrun on corners. This can be achieved with bollards which suit the character of the Garden Village.

These items may be required:

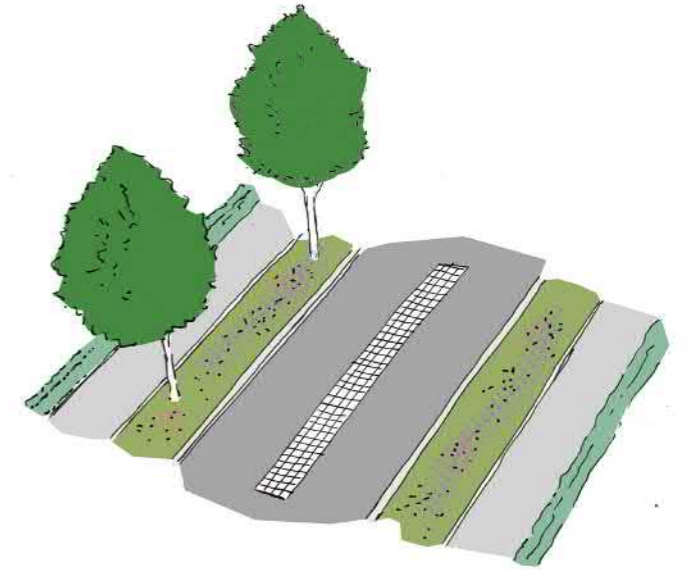
- Near the primary school to prevent unwanted pick up/drop off behaviour from vehicles in unwanted areas
- At junctions to maintain swept paths of vehicles
- At open space crossing points to frame the crossing area and provide pedestrians / cyclists with a heightened perception of safety

Traffic calming

Traffic calming is an effective way of encouraging appropriate behaviour and speeds of vehicles in a street, increasing safety and priority where required for non-motorised users. Some street features such as crossing points, bends and junctions naturally act as traffic calming. Further traffic calming techniques include:

Visual narrowing in carriageway

Using a contrasting material such as block paving to create a visual narrowing effect in the street, encouraging slower speeds by creating the impression of less space and the need for caution.



Visual narrowing used centrally on the carriageway

Chicanes

This form of traffic calming requires oncoming cars to slow down and in one direction to give way, this can be achieved through a build out of the planted verge area and may contain signage or gateway features if appropriate.

Varying road alignment (not always straight)

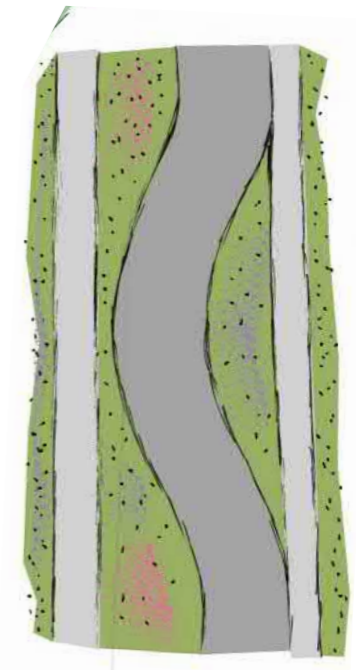
This technique ensures drivers are aware of their surroundings, and are not able to speed unnecessarily as they may on a straight stretch of road.

Speed cushions / raised tables

The use of speed cushions in key locations requires vehicles to slow down as they approach them. This is effective at junctions to provide level crossing points for pedestrians, and for areas where extra caution is needed e.g. around primary school. Some examples of these are further described within the section Junction Typologies.

Shared surfaces

The informality and lack of demarcation requires heightened awareness for drivers of their surroundings and the need to act courteously to the other users of this space; pedestrians, cyclists, and equestrian.



Varied street alignment to create interest and slow traffic

Crossing Points

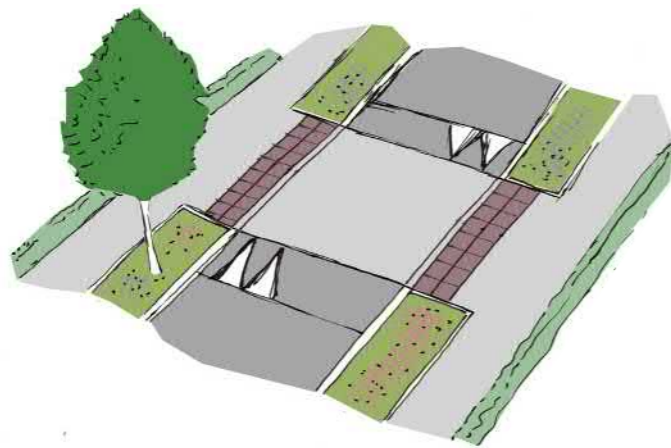
Whilst most of the street typologies look to prioritise pedestrian users over vehicles, creating confidence to cross anywhere along the streets, there is still a need to provide clear, safe crossing facilities in appropriate places.

Crossing points should be located:

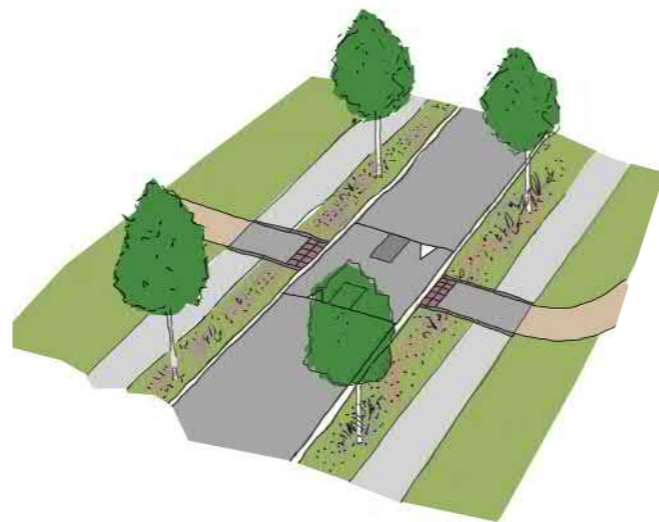
- At key desire lines and destinations e.g. near entrances to key buildings/services, and the primary school
- At junctions, to ensure safety for all and to slow traffic speeds
- Where open space paths cross the carriageway suddenly: pedestrians may need to cross a carriageway to continue their route on an open space path, due to the localised area of conflict a crossing point announces this potential hazard, need to be cautious.

Crossing points could feature:

- Change in levels, with a speed cushion or raised table
- Vertical features to ensure legibility e.g. signs/posts/bollards
- Simple change in material palette
- Formal controlled facilities
- Road narrowing
- Tactile paving as illustrated in the materials palette



Raised tables to slow traffic speeds and provide crossing points



Parking

On-street parking bays

Sustainable modes of transport should be prioritised therefore walking and cycling must be attractive and convenient for all. Some on street parking may be required in certain areas to provide for residents, visitors to the residential areas and open spaces; customers / visitors of the commercial areas; pick-up / drop-off near the primary school; loading bays for commercial area (if applicable), as well as disabled parking.

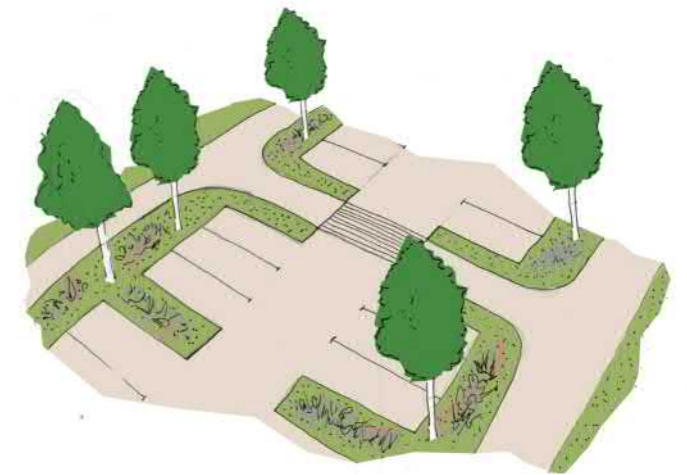
The image below shows the principles for dedicated on-street parking bays. Bays must not be excessive in size, should be framed by planting and tailored to their context. Bays should be staggered along the street, not directly opposite each other. There should be space for no more than four cars per bay on the main street, and six cars per bay on the residential avenues and access streets, to ensure that parking does not dominate the street scene. Bay dimensions for one car should be minimum 2.4 x 6m.



Car Parks for open spaces

These car parks are intended for the Country Park and other open space destinations which people may come to from afar to enjoy. This car parking should be framed by planting and tailored to its context within the design of the historic parkland, to ensure it fits with the Garden Village character.

A self binding or resin bound surfacing should be used to reflect the character of the surrounding context and materiality of nearby open space paths.



Parking treatments

Street Material Palette

The material palette enables simple legible streets, allowing variations between Character Areas through the detailing of key elements. Longevity and sustainability are key considerations in the specification of materials for the Halsnead Garden Village to ensure appropriateness to the setting and long-lasting solutions.

The elements below (or similar approved equivalent) should be implemented.

Application	Material	Colour	Key typical dimensions	Main Street	Residential Avenue	Access Street	Lane	Commercial	Gateways and focal areas
Kerbs	Pre-cast concrete Tobermore Country Kerb	Silver Grey	W145 x D255 x L1000mm	x				x	
Kerbs	Pre-cast concrete Tobermore Country Kerb	Silver Grey	W145 x D255 x L1000mm	x				x	
Kerbs	Granite kerbs (with upstand or flush)	Silver Grey	W300 x D200 x L1000mm				x		x
Bus Stop Kerbs	Granite Kassel kerb	Silver Grey	W300 x D160 (upstand) x L1000mm	x					
Channels	Granite block paving	Silver Grey	W100 x D100 x L100mm	x	o				x
Block Paving (On carriageway)	Granite block paving	Silver Grey	W100 x D150 x L200mm	x	x	x	x	x	x
Footways and Crossovers	Bituminous surface (as per Knowsley Council specification)	Grey	Not applicable	x	x			x	
Footways and Crossovers	Bituminous surface (as per Knowsley Council specification)	Grey	Not applicable	x	x			x	
Footways and Crossovers	Yorkstone	Blue/grey with buff swashes	W400 x D50 x L600mm						x
Shared Footway/ Cycleway	Bituminous surface (as per Knowsley Council specification)	Grey	Not applicable	x				x	
Shared Footway/ Cycleway	Yorkstone	Blue/grey with buff swashes	W400 x D50 x L600mm						x
Tactile Paving	Pre-cast concrete	Buff or Grey (Minimum 50% colour contrast to the adjacent footway)	W400 x D50 x L400mm	x	x	x	x	x	x
Carriageway	Hot rolled asphalt with exposed chippings	Dark grey bituminous carriageway with silver grey granite aggregate chippings rolled into wearing course	Not applicable	x	x	x		x	x
Lanes	Marshalls Tegula paving	Burnt Ochre or Traditional	W160 x D80 x L240mm				x		
Driveway	Ulticolour coloured asphalt	Natural Gravel Colour	Aggregate size 6mm	x	x	x	x	x	x

o - Only for junctions and traffic calming

Street Material Palette

Whilst some manufacturer specific products are referenced in the Guide, these are all appropriate examples of what may be used, otherwise an acceptable equivalent may be considered.

1 Kerbs



2 Bus Stop Kerbs



3 Channels



4 Block Paving (On carriageway)



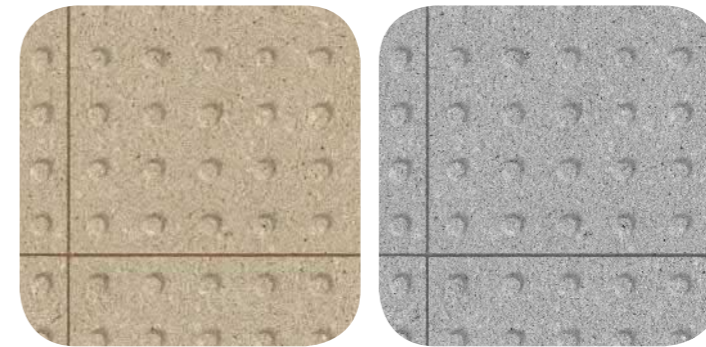
5 Footways & Crossovers



6 Shared Footway / Cycleway



7 Tactile Paving



8 Carriageway



9 Prioritised Pedestrian Area (Lanes)



10 Driveway



Lighting

Within the streetscape, lighting columns and luminaires are the most common element of street furniture. It is important that these and other columns form a coherent scheme with a uniform design approach and painted finish. The design of the lighting should avoid unacceptable impacts from artificial light on local amenity; road safety and nature conservation.

Application of the lighting will be as follows:

- Warm White LEDs to be used on all Halsnead residential roads and Neutral White for the commercial areas
- All design specification to be checked with KMBC representative prior to commencement of design
- All residential lanterns will need to conform to Glare Class G1 and for the commercial areas Glare Class G4
- All products to be painted black (RAL9005)
- Lighting columns on the Main Street and Residential Avenue should be located to the rear of the verges to provide the correct levels of lighting of footpaths and carriageway.
- Lighting columns should be placed in locations that achieve optimal spacing distances and that also reduce clutter within the streetscape.

Type of Street	Column	Lantern / Size	Bracket	Lighting Class	Ely Optic
Main Street	DW Windsor Tubular - 8m	DW Windsor Ely B	DW Windsor Roco Top Entry - 1m	M5/P3	Performance LED
Residential Avenue	DW Windsor Tubular - 6m	DW Windsor Ely C	DW Windsor Roco Top Entry - 0.5m	P3	Performance LED
Access Street	DW Windsor Tubular - 5m	DW Windsor Ely C	DW Windsor Roco Top Entry - 0.5m	P4	Performance LED
Lane	DW Windsor Tubular - 5m	DW Windsor Ely C	DW Windsor Ely V-shaped stirrup-mounted	P4	Performance LED
Commercial	Fabrikat 8m or 10m	Thorn Isaro Pro	-	M4	-

Street Furniture

Street furniture has been chosen to reflect the theme of Halsnead Garden Village and to contribute to its unique and distinctive identity. Furniture will cater to the requirements of the street-scape, public realm areas, and public open space tiers 2-4 of the Garden Village, whilst aiming to complement feature paving patterns and broader material types.

Placement and detailing of street furniture will ensure safety and legibility in the public realm including the needs of the visually impaired. The opportunity to provide bespoke furniture with motifs/logos/varying colours is encouraged.



The Broxap 'Blackburn Seat' (or equivalent) or bespoke seating. Cast iron frame seat in streamlined contemporary design with eleven treated hardwood slats.

Fixing: Root fixed

Dimension:

L1800 x W605 x H840 mm

Material: Engineering grade 250 Cast iron and hardwood

Colour: Black (RAL 9005)

Finish: Treated hardwood. Cast iron finished with a primer undercoat and a 2 - pack acrylic topcoat

Extras: Embellishments painted white



The Broxap 'Sheffield Cycle Stand' (or equivalent).

This simple hoop design allows cycles to be secured to the continuous one-piece steel tube in a variety of ways.

Fixing: Root Fixed

Dimension: W715 x H800 x DIAM48.3 mm

Material: Galvanised steel

Colour: Black (RAL 9005)

Finish: Polyester Powder Coated

Extras: Other sizes available



The Broxap 'Eco Steel Litter Bin' (or equivalent).

Steel 120 litre eco litter bin with two posting apertures and galvanized steel liner.

Fixing: Root Fixed

Dimensions: W535 x H1020 mm

Capacity: 120L

Material: Galvanised Steel

Colour: Black (RAL 9005) with white text / logo

Finish: Powder galvanised prime and polyester powder coated

Extras: Recycling bins in the same styles to be sited in appropriate locations. Please refer to Knowsley Council's Litter Bin Policy.



Woodscape Bollard (or equivalent).

Fixing: Ground fixed

Dimension: Smaller bollards (200W x 1000H mm above ground).

Larger bollards (300W x 3000H mm above ground).

Material: FSC Certified Naturally Very Durable Hardwood Timber

Colour: Stained

Finish: Treated

Extras: Reflective strips where necessary

Street Furniture: Way-finding Signage

Consistency across the palette of street furniture is important to establish a visually unified public realm. The selected elements provide a homogeneous design that can be adapted using different colour palettes to represent different categories of information and differentiate between Character Areas. Bold lettering and considered colours ensure directions, street names and key locations are legible.

Destinations to be promoted through way-finding signage include:

- Local services and community facilities
- Churches and schools
- Transport hubs and stations
- Parks

Fingerpost



The Broxap 'Woking Signage Column' (or equivalent).
Traditional design finger post for multi-directional way-finding.
Arms: Full collar arm in 90, 145 or 200mm widths fitted at full or half height collars
Font: Times New Roman with 35mm cap height, painted (White, RAL 9010), justification and symbol associations where necessary
Column Size: 2400 (a/g) to underside of fingers x 600 (b/g) x 230 diameter mm
Material: Cast aluminium painted arms mounted to steel base collar
Finish: Galvanised coating with colour powder-coated finish (Black, RAL 9005, or other where necessary)

Street Sign



Cast metal nameplates for neighbourhood streets provide original themed type faces in contrast colours. All signs should be flush with top of supporting post.
Fixing: Drill wall-mounted, or brass dome-headed fixings to match. Where post mounted, sign should be flush with top of supporting post
Font: Times New Roman, painted (Black, RAL 9005)
Dimensions: 150mm deep (text height to suit)
Material: Composite
Finish: Cellulose, car paint system or 2 pack acrylic (White base, RAL 9010)

Street naming

There is an opportunity to reference the site's heritage for example people, buildings, land uses, and key features through the street naming applied to the development.

Vernacular:	Former and nearby land uses:	Former landowners:	Landscape features:	Mining seam names:	
Sandstone	Hunting	Willis	Hill	Higher Florida	Crombouke
Clay	Mining	Wetherby	Clump	Lower Florida	Queen (Burghy)
Georgian	Timber	Pemberton	Rise	Earthy Delf	Ravenhead
Hall	Quarrying	Ogle	Forest	Yard	Plodder
Estate	Farming	Soane	Wood	Felcroft	Haigh Yard
Lodge		Travers	Water	Rushy Park	Pigeon House
				Cheshire	London Delph

Walls & Retaining Features

Perimeter Walls



As stated in the HSPD, the sandstone boundary walls of the former Halsnead Park Estate partially remain intact around the perimeter of the site. This important heritage asset should be retained, repaired, reinstated where appropriate. It should also be integrated into the development as much as possible. Any proposals that include works to the existing walls may require Listed Building Consent.

Gabion Baskets



Proposed development should integrate with the existing site topography. Changes of levels should be accommodated using sensitive design to reduce the need for retaining structures where possible. Where this is not possible, gabion baskets should be used.

Gabion baskets offer a functioning structural component and are to be filled with locally sourced red sandstone to reflect the vernacular of the site and wider context. Gabion baskets are made from high quality steel wire which is heavily galvanised to provide long-term corrosion protections. These items are delivered flat-pack and are assembled and filled on site. Pre-filled gabion options are also available for immediate deployment.

Use of gabions will be predominantly in the Halsnead South character area. Approval to use these features in the other character areas will only be given in exceptional circumstances / site conditions. The material specification for retaining walls will be subject to a structural design check to determine if the preferred material would be fit for purpose.

Entrance Gateways

Entrance gateways into the development will be designed to reflect the overall theme and quality of Halsnead Garden Village and should also reflect the character area in which they are located. These spaces, which play an important placemaking role, should integrate with their surroundings and the site's heritage.

New entrance gateways should reflect the design of the historic gateways into the parkland, especially where they break through the existing perimeter walls. These spaces should be distinctive and high quality environments with a positive visual impact, providing easy access for pedestrians, cyclists and vehicles. They should present an inviting example of the place that lies beyond, with attractive views into the Garden Village framed by 'feature' built form, structural planting and open space.

Where the historic boundary wall was/is present, it should be incorporated/reinstated into the new design, using the same form and materials. Cheshire fencing may be included in areas where the wall has never been located. Planting, in line with Section 5 (Landscape) of this Guide, should also be incorporated.

A hierarchical approach to the design of these spaces is also encouraged to aid orientation around the Garden Village. It should be clear which entrance gateways are 'primary', and which are 'secondary'.

The entrance gateways on Lickers Lane in North Halsnead should have a more formal character to integrate with the adjacent built form in Whiston. They could feature constructed elements such as local natural sandstone walls and Cheshire fencing.

The entrance gateway into the site from Tarbock Island roundabout is a major entrance to the development from the motorway network. It should feature dense naturalistic woodland-edge planting with views to green space and SuDS features. The experience of travelling through this space should be similar to entering a woodland country park, with the quiet residential development being revealed slowly to provide a gradual transition from the motorway to a quiet residential area. Other entrance gateways in Halsnead West and Halsnead Fox's Bank character areas should also have a natural feel to them, with naturalistic planting and reduced use of constructed elements.

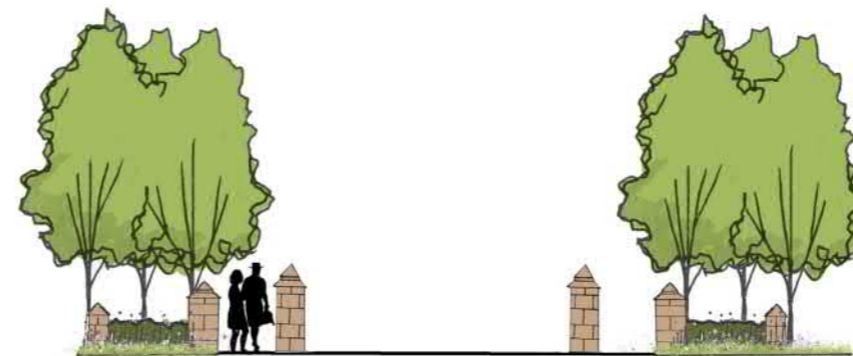
Entrance gateways into the commercial area in Halsnead South should reference the area's mining heritage and proposed industrial land use. This could be achieved through the use of gabion basket walls filled with natural stone from the local area.



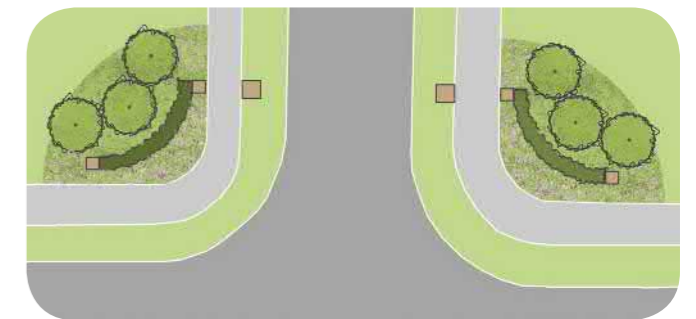
Photographs of existing entrance gateways into the site.



Sketch of indicative entrance into the site from Tarbock Island roundabout, featuring naturalistic woodland planting, hedges, Copenhagen crossing, prominent building facade with views opening up to open space and SuDS features on the right.



Indicative main street entrance gateway into the site from Lickers Lane.



Indicative residential avenue entrance gateway into the site from Fox's Bank Lane.



The Historic Lane

The former estate driveway/lane should be integrated into the design proposals for Halsnead Garden Village.

Avenue trees are to be planted to match the historic layout (symmetrical single line each side of lane). Beneath the trees should be fairly open to allow views through the space.

It is important to avoid having lanes running parallel along both sides of the Historic Lane, to reduce the amount of hard surfaces. Some short sections either side would however be acceptable. Where possible, buildings should front on to the lane and gable ends should be avoided.

The designs for this area should also create a positive relationship to the historic gateway and lodge to further enhance its character.

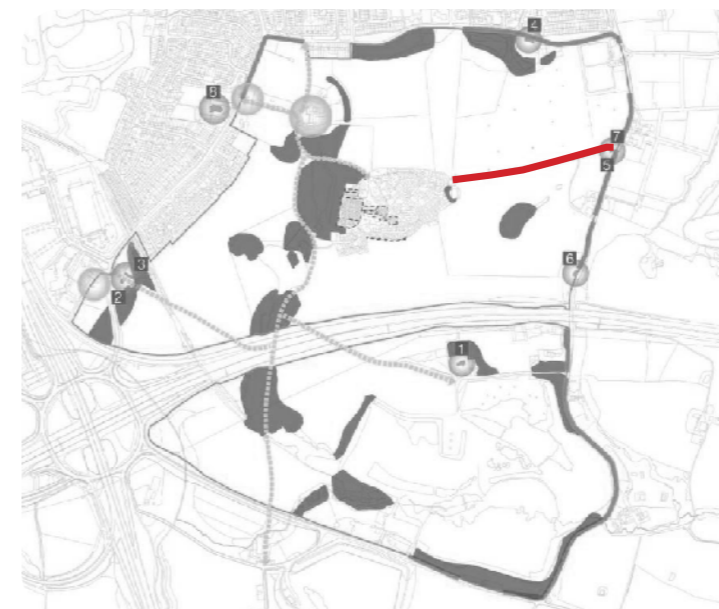
Lighting along the Historic Lane needs careful consideration to ensure the route feels safe. Adjacent properties should overlook the route as much as possible to allow for natural surveillance..



Precedent Image: 'The Avenue' by Pollard Thomas Edwards. Photograph by Tim Crocker.



Sketch showing indicative layout of Historic Lane



Historic Lane location

Village Green

The village green is located at the junction of the Main Streets and should be designed to be a high quality central public space where local residents and visitors can relax, interact and feel part of the community. It is a defining 'set-piece' of the Garden Village.

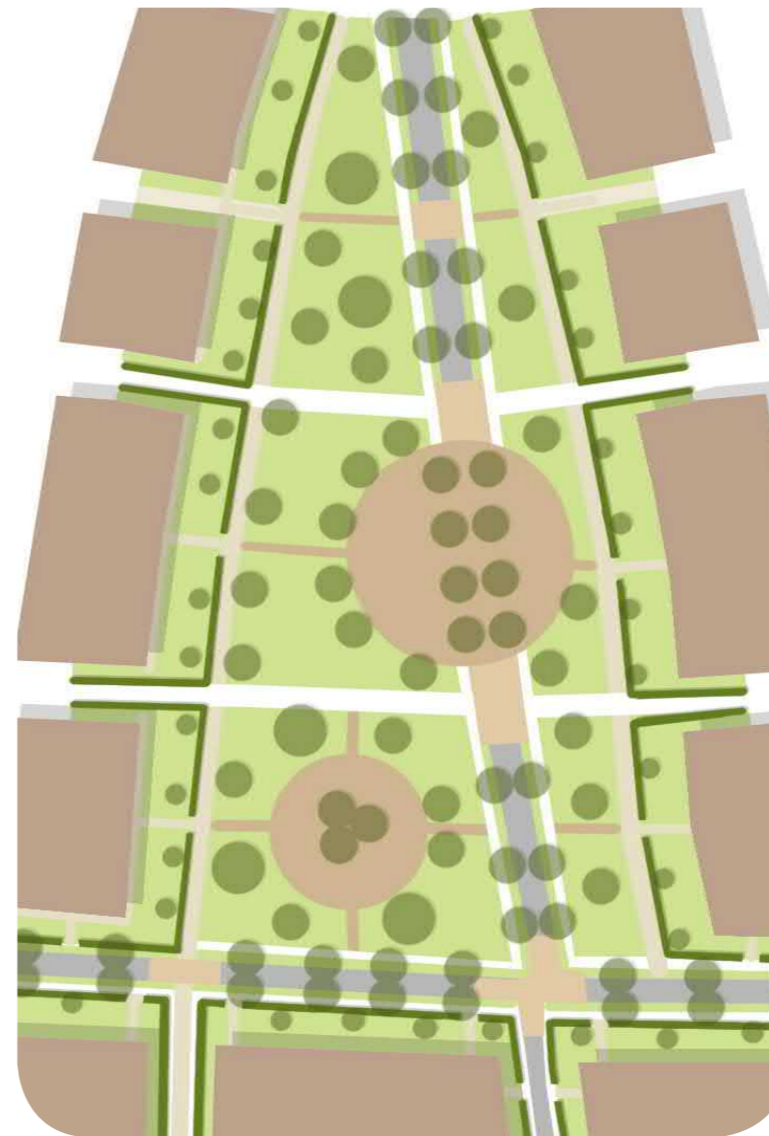
This space should reflect a traditional village green, and require 'low input' in terms of ongoing maintenance, but should have 'high impact' i.e. a prominent and attractive space. Soft landscape should include lawns, planting beds, shrubs, hedges and trees and bulbs, with species adhering to Section 5 (Landscape) in this Guide. The Village Green should be a multifunctional space that caters for different activities such as vibrant community events and local markets, and quieter activities such as picnics and seating.

It will be a pedestrianised space featuring interconnected footpaths and open spaces. There should be a series of spaces with different functions to provide an interesting journey. High quality surfaces should reflect local materials and vernacular with some informal play value to encourage pedestrians to meander through the space. Some visitor parking may also be necessary.

High quality, robust and attractive street furniture including seating, lighting, bollards, signage and a community notice board should be present. Artwork/sculptures providing informal play value such as local natural stone boulders, stepping stones and logs should also be incorporated. High quality materials reflecting local character and the site's heritage along with bespoke elements such as a logo, should be used.

Surrounding streets should include traffic calming elements and prominent pedestrian crossings to promote a safe and pleasant environment. They should also be of a material that highlights the pedestrian priority of the area. Verges are to feature low height local natural stone walls, grass and tree planting that allow open views across the Village Green, while providing sufficient physical separation of pedestrians and road traffic.

Long vistas are to be created and framed by paths, street furniture and planting, and the whole space should be fully overlooked by surrounding taller properties such as apartment blocks and townhouses, with attractive 'feature' facades. Properties should enclose and front on to the Village Green to increase safety and integrate this key space with its surroundings.



Village Green Concept Sketch

Nodal Points

The point where key connections and linear spaces interconnect can create distinctive nodes in the urban structure, improving its legibility and the ability for people to orientate themselves. By designing such spaces into the development, the quality, character and peoples' experiences of it will be greatly enhanced. This approach is in the Garden Village tradition; junctions and confluences being marked by clusters of features such as distinctively arranged or detailed buildings/facades, landscape and boundary features and green space. Each node will have a distinctive role, character and identity.

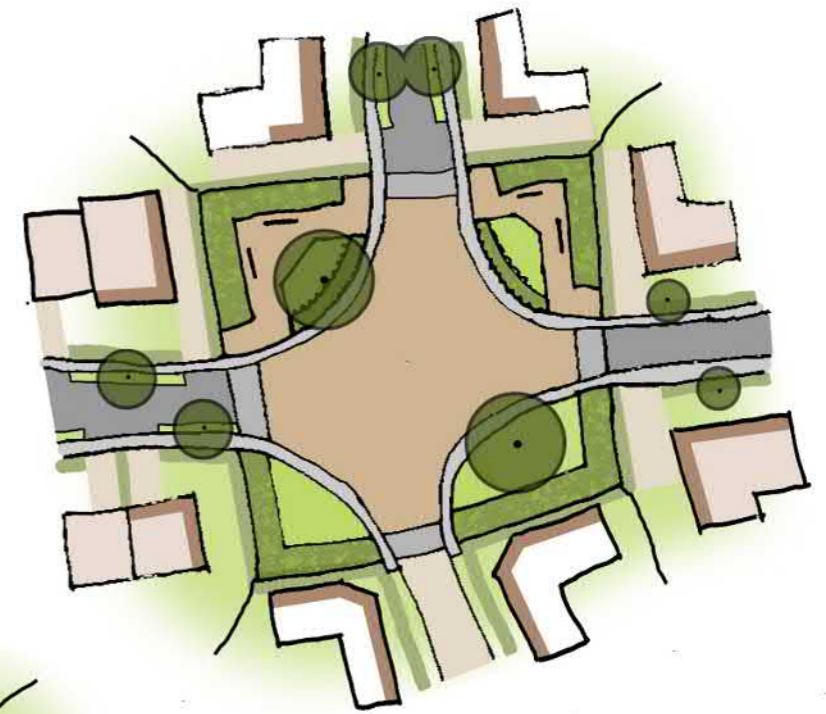
These spaces should be varied to reflect the character area within which they are situated, and should incorporate low maintenance soft landscape including lawns, planting beds, hedges and trees to suit the Garden Village Aesthetic. Species should be consistent with those detailed in Section 5 (Landscape) of this Guide. Nodes should also include elements reflecting the site's heritage, local vernacular and high quality materials, and could incorporate bollards and seating where appropriate.

Not all nodes will have the same treatment, for instance in North Halsnead the space might include more hardstanding areas, low natural stone walls, block paving, as well as more formal planting and seating provision. In Halsnead West there might be less hardstanding, and instead, more trees, hedges and woodland edge-style planting to reflect the surroundings. Nodes in Halsnead Fox's Bank might again have some hardstanding areas, with increased lawn areas or wildflower meadows, for example.

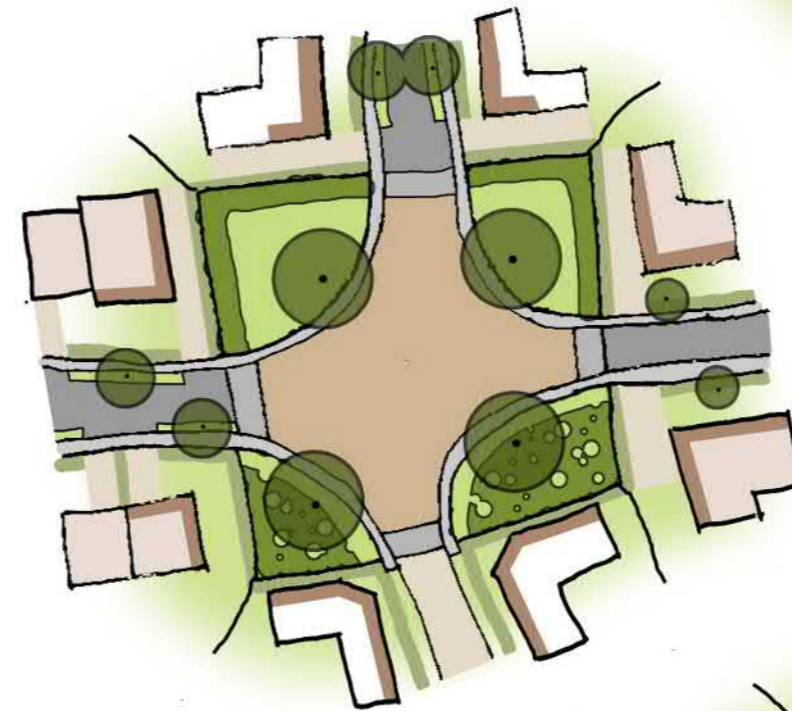
A hierarchical approach to the design of the nodes should be demonstrated in order to aid the ability for people to orientate themselves within the Garden Village. For example, the larger the area of the node, the greater the opportunity for increased variety and quantity of designed elements. The smaller the node, the simpler the design should be.

Nodes should not be leftover space, but should be designed into the layout of the development and should integrate with the surrounding land uses and built form, to maximise their potential. All nodes should be well-overlooked by surrounding properties and road users to increase the safety for users of these attractive spaces within the fabric of the Garden Village. Low maintenance is a requirement to be considered in the design of all these areas.

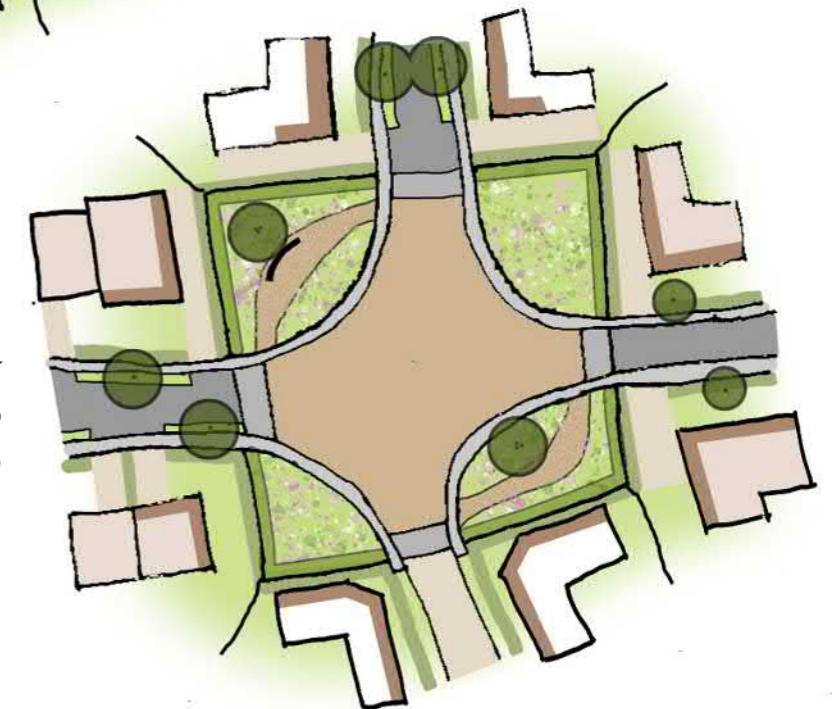
*North Halsnead
Indicative Local Node
Concept Sketch*



*Halsnead West
Indicative Local Node
Concept Sketch*



*Halsnead Fox's Bank
Indicative Local Node
Concept Sketch*



Design Philosophy

The landscape design philosophy for Halsnead Garden Village has been inspired by the site's heritage and relates to the character areas identified within the HSPD: Halsnead West, North Halsnead and Halsnead Fox's Bank. It also reflects the Green Infrastructure Plan which identifies open space character opportunities: Big Water woodlands, urban interface, Halsnead parklands respectively, along with an environmental corridor north of the M62.

A soft landscaping character has been assigned to each area with subtle changes in the plant species to aid coherence in design and instil a sense of place in each character area while providing a gentle, flowing transition between them.

Halsnead West offers the opportunity: to create attractive views across Big Water and its associated woodlands through selective vegetation removal; enhance the historic form of the landscape and historic parkland character; and provide a distinctive 'soft' gateway at Windy Arbour Road, with prominent high quality landscape, green spaces and SuDS. Existing plant species within this Character Area will be utilised, along with additional species in the new residential areas that include a mix of ornamental and native species to complement the woodland corridor and local character.

North Halsnead presents key opportunities to integrate the wider development with the existing community of Whiston. Planting here will embody a traditional suburban 'village' feel including an enhanced 'home farm' character around the Prince's Farm area. This character area will feature a wide array of attractive and suitable plant species to create a harmonious interface and provide a gentle transition from Halsnead Garden Village to the neighbouring settlement.

Halsnead Fox's Bank has open views towards high quality rural landscape and strong landscape features such as Fox Clump that evoke the former Halsnead Park Estate. Using rural English cottage gardens as inspiration, Halsnead Fox's Bank shall be more colourful with an emphasis on flowering and variegated foliage species. A multi-functional green corridor will be provided to the motorway edge.

Halsnead South is situated on the site of the former Cronton Colliery south of the M62. The former land uses and their remnants in the landscape provide a design narrative of the local heritage to be reflected in the development here, which comprises residential and commercial uses. The site is predominantly allocated to the Country Park which will provide a key leisure and recreation destination. The Country Park provides an opportunity to retain the historic tree belts, restore native vegetation for biodiversity benefit, and to soften the visual impact of the development by embedding it in the landscape.

Planting Application to New Properties

Residential

The planting varies between each Character Area offering diversity in colour and texture to suit the context and spatial arrangement of the streets.

New residential properties will be framed by hedgerows to provide a softened separation and increased privacy from the street scene. Hedgerows will also be used to separate driveways that are next to each other.

Front gardens on Access Streets and Lanes will feature smaller, flowering tree species, as well as diverse herbaceous and shrub species to provide seasonal interest and year-round beauty.

Screening vegetation will be provided where appropriate e.g. around Listed buildings, Halsnead Park, and along the M62.

Commercial

Planting in this area aims to enhance existing site features, the strategic link route, and provide a pleasant green setting to the commercial area.

Landscape Application to Street Typologies

Entrance Gateways

Bold structural planting to provide a welcoming arrival and to reflect the overall theme of the development that lies beyond. Species to tie in with character areas and to include trees, feature shrubs, wildflowers, grasses and bulbs.

Main Street

Tall bold trees within wide grass verges define the Main Street. This will create a formal avenue effect and provide a high quality first impression when entering Halsnead, as well as a degree of separation between pedestrians and traffic.

Residential Avenues

Formal, traditional avenue planting will be characterised by medium sized trees or tall narrow trees positioned in a rhythm either side of the carriageway, within wide grass verges.

Access Streets

Front gardens to the properties will include mixed species of plants and trees that reflect the character of the area to ensure a visual and textural variety at the street edge. Planted buildouts of verges will also have a traffic calming effect.

Lanes

Planting on this street typology consists of a diversely planted strip either side of a paved surface, with species reflecting the particular character of the area. Planted buildouts of verges will also have a traffic calming effect.

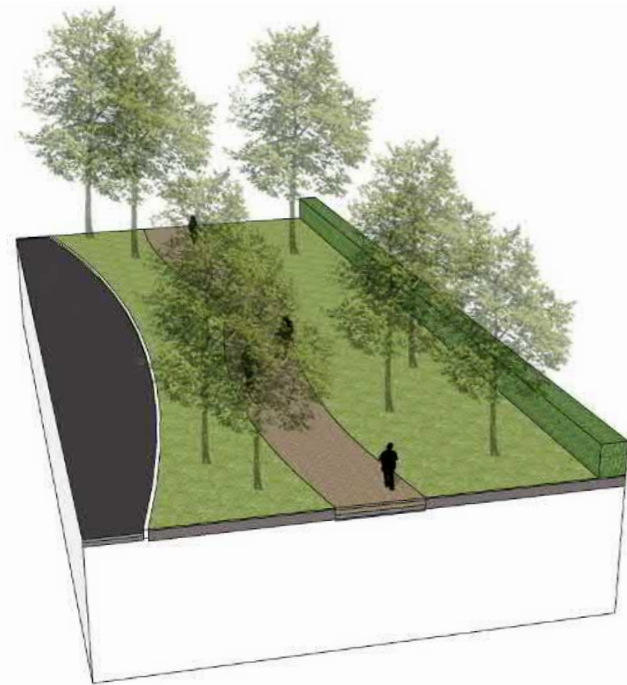
Commercial Street

This street type will offer native species to reflect its surroundings and consideration is required for the species selection and placement along the carriageway edge to ensure there are no interferences with traffic.

Path Typologies

Guidance for the design of all path typologies within open spaces is detailed below. As a general note, paths within tree root zones should be designed to protect existing roots and reinforced to allow tree root development. All paths are to be designed to be well drained and have no standing water.

Shared route



These shared surfaces cater to cyclists and pedestrians measuring 3m wide. Surface material could be either bituminous surface or permeable resin bound depending on location. At times these may run alongside streets, but will lie interdependently of them gently curving and framed by trees on either side.

Accessible path



This 2m wide path is intended to be fully accessible for all users, with gentle slopes and a subtle camber to aid drainage. Surface material could be either bituminous surface or permeable resin bound depending on location. For this path type, there is to be a mown edge either side to provide a soft transition and verge to the planting beyond it.

Natural path



This path is to be applied to the current topography of the site, which can be steep in gradient at times. Permeable resin bound surfaces at 1.5m wide provide a pleasant route for fit and active people to enjoy.

Historic lane as shared path



This path lies on the former main route to the Halsnead Estate, framing this historic route with trees on either side to offer a key link across the development for pedestrians and cyclists.

Public Open Spaces

Park and Garden

The park and garden areas are large-scale allocations of land that are maintained for the purpose of formal and informal sport and recreation, preservation of natural environments, provision of green space and storm water management.

The parks and gardens are located at the Big Water woodlands catchment and surrounding woodlands (north of the M62), and at the proposed Country Park on the former Cronton Colliery (south of the M62).

The design of each parkland will be informed by their character area, context and the site's heritage. Historic landscape features including planting should be retained and enhanced where possible.

Parks and gardens will focus on servicing the community beyond Halsnead, offering a range of larger scaled activity types, facilities and environmental benefits.

Objectives

- Ensure that existing woodlands are preserved and integrated into the park and open space designs to emphasise connections to the historic landscape
- Encourage opportunities to increase biodiversity to the area
- Maintain and promote native flora and fauna throughout the region
- Provide a successful Country Park providing a destination for walking, cycling and horse-riding for Halsnead residents and the surrounding community.
- Provide adequate screening from the M62 to ensure this does not detract from the experience of the Country Park and the adjoining new residential development and linear greenspaces to the north.

Halsnead West



The park and garden area surrounding Big Water woodlands, situated within Halsnead West, will benefit the existing woodland by enhancing vegetation, and establishing feature amenity spaces.

- Bold visual cues should be considered in the arrangement of spaces, to provide highly visible and physically interactive connections to the Big Water woodlands
- The park should provide amenities for passive and active recreation such as nature trails, cycle paths, and where appropriate seating areas
- Way-finding signage and visitor information should be included to aid orientation within the network of spaces and direction towards key destinations
- High quality furniture and equipment should be implemented with visual references to the existing woodland aesthetic
- Interventions to provide habitat or biodiversity benefits should be maximised in this area such as: appropriate plant species, bird nests, bat boxes, bug hotels and hedgehog houses
- Opportunities to provide informative and educational signage about the flora and fauna should be maximised to encourage children to learn and appreciate their surroundings

Halsnead South



The Halsnead Country Park located in Halsnead South aims to transform the existing Cronton Colliery into a regional parkland that focuses on large-scale environmental provision for increased biodiversity values and broad recreation opportunities such as bird watching, picnicking and nature trails.

- A Country Park strategy should be derived to manage the routes for all users, and locate planting appropriately to provide an attractive semi-rural setting, and maximise habitats
- Way-finding facilities and visitor information boards should be included to aid navigation through the park and to nearby destinations
- Suitable connections should be provided at the extents of the Country Park ensuring a safe interface with the commercial area
- Walking and cycling trails of varying distances and difficulties are encouraged and should be explained through the way-finding signage
- Opportunities to integrate sustainable measures such as dry catchment basins or wetlands should be explored where appropriate
- High quality furniture should be provided which suits its setting and is conveniently located for all users
- Historic landscape features including planting should be retained and enhanced where possible.

Public Open Spaces

Amenity Greenspace

Amenity greenspaces are a series of small scale open spaces strategically dispersed around the residential areas of Halsnead Garden Village. These can facilitate informal gatherings or play, and provide a visual break in the built form. The design of amenity greenspaces will reflect the site's heritage, the Character Area and context within which each space is situated.

Objectives

- Smaller areas of open space that are accessible to local residents will generally provide for informal recreation
- Depending on the scale they could facilitate outdoor gym stations, informal play equipment, or integrated stormwater management systems
- These spaces are key for enhancing the sense of community, local ownership, and benefit from natural surveillance by onlooking properties
- Amenity greenspaces could be located along green spines or pedestrian/cycle networks to provide rest points along routes or meeting places for residents

Halsnead West



Amenity greenspaces within Halsnead West will assume a naturalised landscape design with a focus on maintaining historic parkland character and retaining existing woodland.

- Planting palettes should include a variety of groundcover and shrub mixes to establish a naturalistic sense of woodland aesthetic
- Opportunities should be taken to provide informal rest areas with high level shading
- Where possible, the inclusion of integrated play spaces within planted areas are encouraged to provide sensory learning for younger children
- These amenity spaces will feature an abundance of trees, and wildflower / naturalistic planting to appear as an 'untouched' landscape

North Halsnead



Amenity greenspaces within North Halsnead will focus on combining soft and hard landscape elements and furniture to provide usable spaces and pocket parks that provide a range of equipment for the surrounding community.

- Planting palettes should be minimal in diversity / arrangement to reduce maintenance
- Where appropriate, structural planting schemes will be incorporated to provide defensible barriers and frame amenity spaces
- Play furniture and equipment should take a bold, architectural appearance to attract all ages and provide a safe environment for mixed community play and reflect its surroundings
- Opportunities to incorporate sustainable urban drainage systems for stormwater collection and harvesting should also be included where appropriate

Halsnead Fox's Bank



Amenity greenspaces within Halsnead Fox's Bank will advantage opportunities to develop broad open spaces for both soft and hard recreation.

- These spaces should act as naturalistic breaks in the urban grain, assisting to break up and diversify typologies within high volume areas
- A focus should be made on linear or clustered groups of high canopy planting, with limited pockets of under-storey groundcover to keep the open landscape as the primary visual focus
- Opportunities for formal pathways, scattered seating areas and rest stops should be included
- Where appropriate, open space should be designed to act as dry water basins, using a variety of wildflower mixes to assist in water filtration processes

Public Open Spaces

Provision for Children and Young People

It is important that the community have safe access to high quality, well-designed, secure and stimulating play and informal recreation spaces close to where they live. There will be at least one Neighbourhood Equipped Area of Play (NEAP) and at least one Local Equipped Area of Play (LEAP) provided. Local Areas of Play (LAP) should be provided within residential areas in locations identified by developers as being suitable for this type of play space. The design of each of these features will reflect the site's heritage, Character Area and context within which it is situated.

Objectives

- To encourage a sense of adventure within each space
- Areas should offer multiple equipment types to promote inclusive use and accessibility for all ages and abilities
- Seating and litter bins must be provided, as well as signage indicating that the area is intended for children's play and that dogs are not welcome, including contact details for facility operators
- Surface areas must be well-drained and reasonably flat, with appropriate surface materials for play equipment and / or structures
- All play areas and equipment must meet relevant ROSPA guidelines and European Standards for Playground Equipment (EN 1176 and EN1177)
- The Play England 10 Play Design Principles should be considered, ensuring successful play spaces:
 1. Are designed for their site
 2. Are well-located
 3. Make use of natural elements
 4. Provide a wide range of play opportunities
 5. Are accessible to both disabled and non-disabled children
 6. Meet community needs
 7. Can be used flexibly
 8. Build in opportunities to experience risk and challenge
 9. Are sustainable and appropriately maintained
 10. Allow for change and evolution

North Halsnead



The NEAP within North Halsnead should respond to the following design guidelines:

- This space will be defined by a synthetic surface material that also accounts for relevant critical fall heights using rubber crumb or astroturf to reflect the surrounding urban character
- The material for play equipment should generally be of treated timber or galvanised steel construction, including options such as climbing frames, see-saws, swings and slides
- The environment should provide stimulating and challenging 'natural' play opportunities for both older and younger children
- There must be an adequate quantity of play space (minimum 1000m²) and quantity of equipment (minimum 9 no. different play experiences) for all children who live within a 1km radius
- The NEAP must be positioned by a pedestrian route that is well used, must be overlooked by neighbouring homes for natural surveillance.
- Convenient and secure parking facilities for bicycles must also be provided
- Boundaries should be recognisable by formal fencing features such as still railing (ROSPA approved) combined with structural hedgerow planting or similar

Halsnead West



The LEAP within Halsnead West should respond to the following design guidelines:

- This space will be defined by a naturalistic surface treatment such as bark mulch or turf to promote a sense of openness through soft outdoor play
- The material for play equipment should generally be of naturalistic features such as boulders, felled trees, tree stumps, willow walkways, and grass mounds
- These areas must provide stimulating and challenging 'natural' play opportunities with a minimum of 6 no. play experiences for children who are beginning to go out and play independently
- There must be an adequate quantity of play space (minimum 400m²) and must serve a catchment area within a 400m radius
- The LEAP must be positioned by a pedestrian route that is well used, must be overlooked by neighbouring homes for natural surveillance.
- Boundaries should be recognisable by designed landscape elements that demonstrate a woodland aesthetic such as estate fencing which will enhance the historic parkland character
- Timber equipment should be guaranteed for at least 10 years

Public Open Spaces

Allotments

Allotments offer local communities a non-commercial garden space for the personalised cultivation of food or 'veggie' patches. Incorporating flexible arrangements and materials enable allotments to reconfigure over time, providing communities with a number of evolving options for plot sizes and species.

Orchards can also be integrated as features of large garden areas whilst also providing food production opportunities for local communities. Recreational activities such as picnic gardens and play spaces can easily be incorporated within their layouts.

There are currently three allotment sites throughout Halsnead, as described by the HSPD. One allotment will be associated with the primary school, located in North Halsnead, while the other two allotments will be located in Halsnead Fox's Bank and Halsnead South Country Park, serving as a community interest for local residents. The design of each allotment will also reflect the site's heritage, the Character Area and context within which it is situated.

Objectives

- To facilitate community engagement and activity for the local production of food and herbs
- Establishing a sense of local ownership and identity
- Facilitating a diverse range of activity types
- Encouraging hands-on learning and education
- Developing opportunities for food production and shared sustainable measures
- Sustainable design integration such as recycled water and materials
- Encouraging all ages to be involved, take an interest, and work together
- Should other opportunities be identified for allotments and food production elsewhere, for example as part of amenity spaces in residential areas, it is encouraged that these are implemented where appropriate

North Halsnead



This allotment will primarily provide an educational facility to assist early learning opportunities for primary school students.

- The size and scale of allotments, the equipment and facilities should be suitable for children, for instance, ensuring an appropriate size for tools and raised planters is maintained
- Food production species should be appropriate for the encouragement of easy learning objectives and simple maintenance procedures
- Opportunities to include plants that support and attract wildlife should be included to capture the imagination of children, encourage their understanding of nature, as well as improving the ecological and biodiversity value of the allotment
- Accessible washing facilities and toilets should be located within close proximity
- Compost bins / piles should be included within the allotment area
- Areas allocated for food growing should be sited to maximise on natural light and sun exposure
- Where appropriate, resting areas for shade, refuge and external learning should be provided

Halsnead Fox's Bank & Halsnead South Country Park



These allotments will primarily provide a larger community orchard to foster local engagements and establish a sense of ownership and local identity for residents.

- Opportunities to include passive and active recreational facilities, picnic and seating areas, and shaded pavilion stands should be incorporated to promote shared community spaces for users
- Allotments should be designed to a grid format and include mown grass or gravel pathways to ensure simple maintenance procedures and accessible food gathering opportunities
- Opportunities should be taken to plant a variety of food bearing species as this will provide a resilience to pests and diseases
- Rainwater storage systems and irrigation methods should be explored to assist in food production methods
- The allotment must include a secure space or utility for users to store and lock away their tools

Public Open Spaces

Outdoor Sports

Larger open spaces provide ample opportunity for community gatherings and sports to occur. The outdoor sports facilities in Halsnead will cover a total area of circa 3.3ha, comprising enhancements to the existing playing fields along Lickers Lane and through the provision of additional playing fields to the primary school. There is also potential for outdoor sports provision to be integrated into the Country Park subject to detailed proposals. The design of each area for outdoor sports will also reflect the site's heritage, the Character Area and context within which it is situated.

Objectives

- To create an inclusive environment that provides residents and users the opportunity to participate in sport and active recreation
- Supporting accessible involvement for all community members with an adaptable space which can host a range of activities and events
- To ensure the provision of high quality facilities and services that comply with relevant standards and cater for community needs and expectations
- To develop and improve the knowledge and practice of sporting types and physical recreation throughout the broader community
- To promote healthy neighbourhoods and local engagement

Playing Fields



- Outdoor sports facilities should be contemporary in design and form
- Placement, form and orientation should be designed to integrate with the existing or proposed prevalent landscape
- Consideration must be made for the maintenance of the facility
- Appropriate changing and welfare facilities should be provided to accommodate for sporting events and facilitate for local club training sessions
- A suitable fencing and gate strategy must be incorporated if appropriate, to limit opportunities for anti-social behaviour, lighting and noise impacts to adjoining properties and wildlife
- The provision of seating areas should be integrated within the design
- Cycle parking should be provided to encourage this mode of transport to and from the facilities
- The provision of refuse disposal must also be provided

Primary School



- Where sporting facilities are provided to primarily serve the primary school, design options must be influenced by current school requirements and their objectives for outdoor sports and education
- The design should offer a secure play area that encourages outdoor physical activity, through carefully considered design-led outcomes
- Designs should provide suitable materials, surface treatments and equipment for their intended activities
- Landscaping and planting should be provided along boundary edges to reduce noise and visual impacts to surrounding residents
- Sites should facilitate easy access and service areas to support the gathering of large student groups
- Sustainable drainage measures such as porous playing surfaces should be incorporated to all artificial playing fields

Public Open Spaces

Natural and semi-natural green space / corridors

This type of public open space is designed to minimise human intervention. Each of these areas will focus on the retention and / or enhancement of high quality natural features through the promotion and conservation of native flora and fauna.

These spaces are located at the Big Water woodlands and the adjacent ancient woodland - Old Wood; woodlands to the Lickers Lane frontage; Fox Clump; the green corridor immediately north of the M62; and the corridors around and through the employment and development areas.

These spaces will focus on enhancing biodiversity. The design of each space will also reflect the site's heritage, the Character Area and context within which it is situated.

Objectives

- Enhancement of historic woodland areas with a focus on reinstating attractive views and historic landscape features through the selective removal of introduced trees and hedges, to open up views to Big Water. Ensure the potential impact on Ecology is assessed and mitigated.
- Ensure that existing vegetation and landscape features are retained, or suitably mitigated for the sustainable retention of existing and proposed flora and fauna
- To establish and communicate a clear vision for the enhancement and protection of existing vegetation and natural environments
- To ensure the enhancement and quality of local environments for residents, visitors and wildlife
- To encourage local community involvement and education through continuing future maintenance and development
- To provide habitat interventions where appropriate through suitable planting, bird nests, bat boxes, bug hotels and hedgehog houses

Halsnead West



Natural spaces within Halsnead West should be designed to reflect and promote a naturalistic appearance with a diverse range of planting types and species.

- Enhance the historic form of the landscape and historic parkland character
- Create attractive views across Big Water and its associated woodlands through selective vegetation removal
- Low level bulb planting and shade tolerant species are encouraged to promote a sense of woodland aesthetic to the area
- The use of naturalistic materials such as self bonding gravel to pedestrian pathways is encouraged where appropriate as shown on Open Space Path typologies
- Opportunities to encourage the promotion of wildlife habitats must be included

North Halsnead



Natural spaces within North Halsnead should seek a more structural appearance through a mix of formal arrangements and hard surface treatments.

- These areas must include canopy species that encourage the movement and nesting opportunities for wildlife
- Structural planting types will be used to define boundary treatments, pathways and spaces
- Ground level planting must be kept to a minimum, with a focus on evergreens and other hardy species to reflect the surrounding urban form
- Opportunities for urban drainage systems should also be included where appropriate
- There should be a focus on education with appropriate signage and nature trails to inform users of the local flora and fauna present in the area

Halsnead Fox's Bank



Natural spaces within Halsnead Fox's Bank should maintain a sense of openness through broad planting schemes and uncluttered focal points.

- Broad planting gestures such as grass seed and perennial mixes are encouraged to show variation throughout seasonal change
- Opportunities to include wetland and pond systems should also be utilised to maximise the biodiversity for aquatic plant and wildlife species whilst creating a focus for the space

Open Space Furniture

The furniture selected for the tier-1 strategic open space areas is appropriate for its setting in woodland and planted areas. The introduction of timber softens the presence of furniture elements in the landscape and complements its surroundings. Logos used elsewhere in the Garden Village will be used here for consistency.



Hatton Rustic 4 Slat Seat (or equivalent).
Four slat timber seat constructed from treated soft or hardwood to suit the parkland aesthetic.

Fixing: Ground fixed
Dimension: 2000L x 580W x 770H mm
Material: Softwood or FSC Hardwood Timber
Colour: Stained
Finish: Treated
Extras: Extended legs for below ground fixing



Springfield Picnic Bench (or equivalent).
An all-in-one timber unit to provide shared amenity seating within parkland.

Fixing: Ground fixed
Dimension: 1800L x 1500W x 785H mm
Material: Softwood or FSC Hardwood Timber
Colour: Stained
Finish: Treated
Extras: -



Woodscape Bollard (or equivalent).

Fixing: Ground fixed
Dimension: Smaller bollards (200W x 1000H mm above ground). Larger bollards (300W x 3000H mm above ground).
Material: FSC Certified Naturally Very Durable Hardwood Timber
Colour: Stained
Finish: Treated
Extras: Reflective strips where necessary



Woodscape Cycle Parking Bollard (or equivalent).

Fixing: Ground fixed
Dimension: 200W x 1000H mm (above ground)
Material: FSC Certified Naturally Very Durable Hardwood Timber
Colour: Stained
Finish: Treated
Extras: -



Streetmaster Woodland Bin (or equivalent).
Rustic style timber bin with galvanised steel frame, capable of extending 300mm below surface.

Fixing: Ground Fixed
Dimension: 590W x 950H mm
Capacity: 110L
Material: Soft or hard wood with steel frame
Colour: Stained
Finish: Treated
Extras: With or without lid



Cheshire Estate Fence (or equivalent).
Elegant estate styled steel fencing traditionally associated with country parks and rural estates.

Fixing: Root Fixed
Dimension: 1200H mm
Material: Galvanized steel
Colour: Black (RAL 9005)
Finish: Polyester powder-coated
Extras: Estate gates to match fencing

Open Space Furniture: Way-Finding Signage

Way-finding for open spaces should be appropriate to their setting within woodland and planted areas. This will ensure consistency with the furniture palettes are maintained and differentiate public realm areas from green spaces. Signage will encourage people towards the Country Park. They can aid pedestrians and cyclists in navigating to local destinations and discovering new places.



Timber Bollard Sign (or equivalent).
Wooden interpretation display board that provides a pitched shelter to engage all visitors. To feature bespoke logo.

Fixing: Ground fixed
Dimension: 842L x 2400H mm
Material: Hardwood
Colour: Stained
Finish: Treated
Extras: 1x A1 Graphics panel and 4x A4 display case



DCipherTM Directional Sign (or equivalent).
Interpretive graphics card attached to timber bollard for route waymarkers and nature walks. To feature bespoke logo.

Fixing: Ground fixed
Dimension: Custom
Material: Soft or Hardwood
Colour: Stained
Finish: Treated
Extras: -

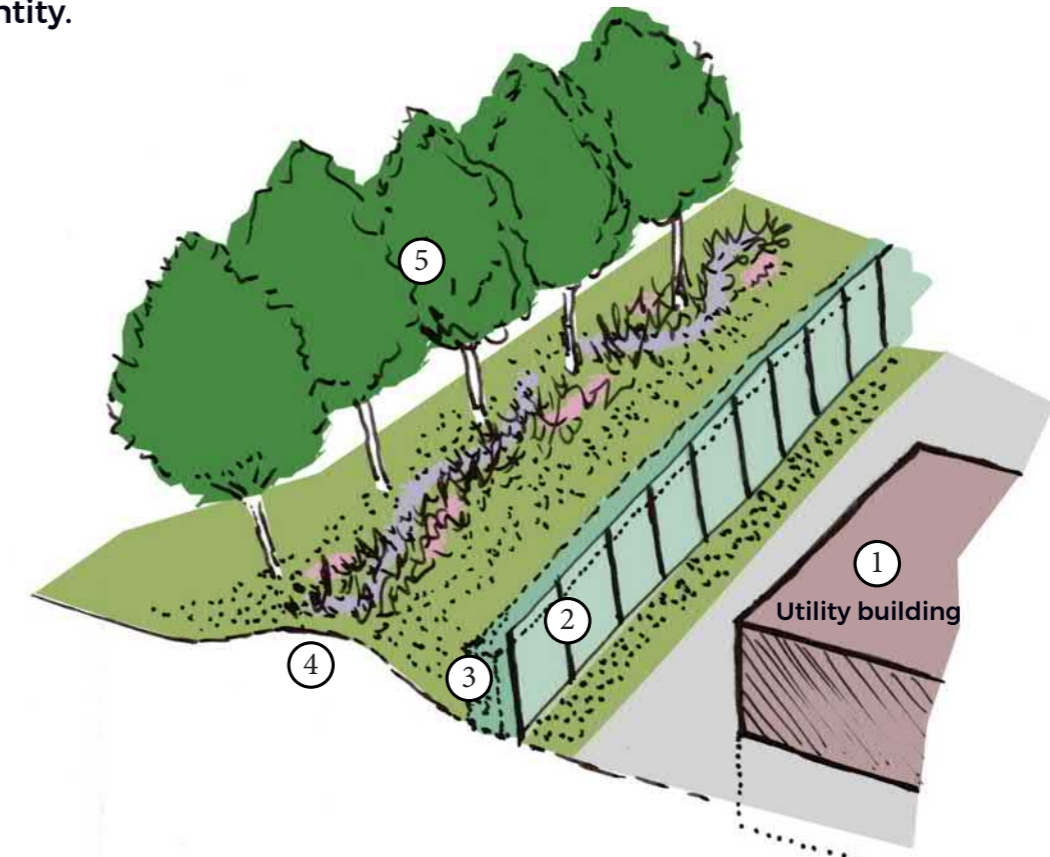


Recycled Timber Signage (or equivalent).
Interpretive information engraved to recycled timber logs or similar. To feature bespoke logo.

Fixing: Free standing
Dimension: Custom
Material: Recycled timber
Colour: Natural
Finish: -
Extras: -

Utility compound screening

Where structures and compounds are required to house utilities, the surrounding area should provide adequate screening to ensure the presence of the compound area and associated structures does not detract from the green infrastructure and character area identity.



- ① Utility compound area: associated structures should ideally be located below ground level or screened to minimise visual obstruction
- ② Secure fencing should be installed around the utility compound perimeter with Paladin Mesh Fencing (or approved equivalent) finished green. Vehicular gates should match the fencing appearance for continuity, and be positioned away from main roads and junctions. Where vehicular access is required, a reinforced grass track should be provided
- ③ Fencing will be screened with Ready Hedge (of a minimum 1m high) or alternative use of pre-grown green screen solution
- ④ Land form to be used around utility compound areas to further screen the appearance of the structure and accommodate wildflower planting for visual interest, unity with the surrounding landscape, and to discourage pedestrians accessing this area
- ⑤ Trees should be used to filter views onto the utility compound area, particularly in close proximity to streets and junctions

Water Management

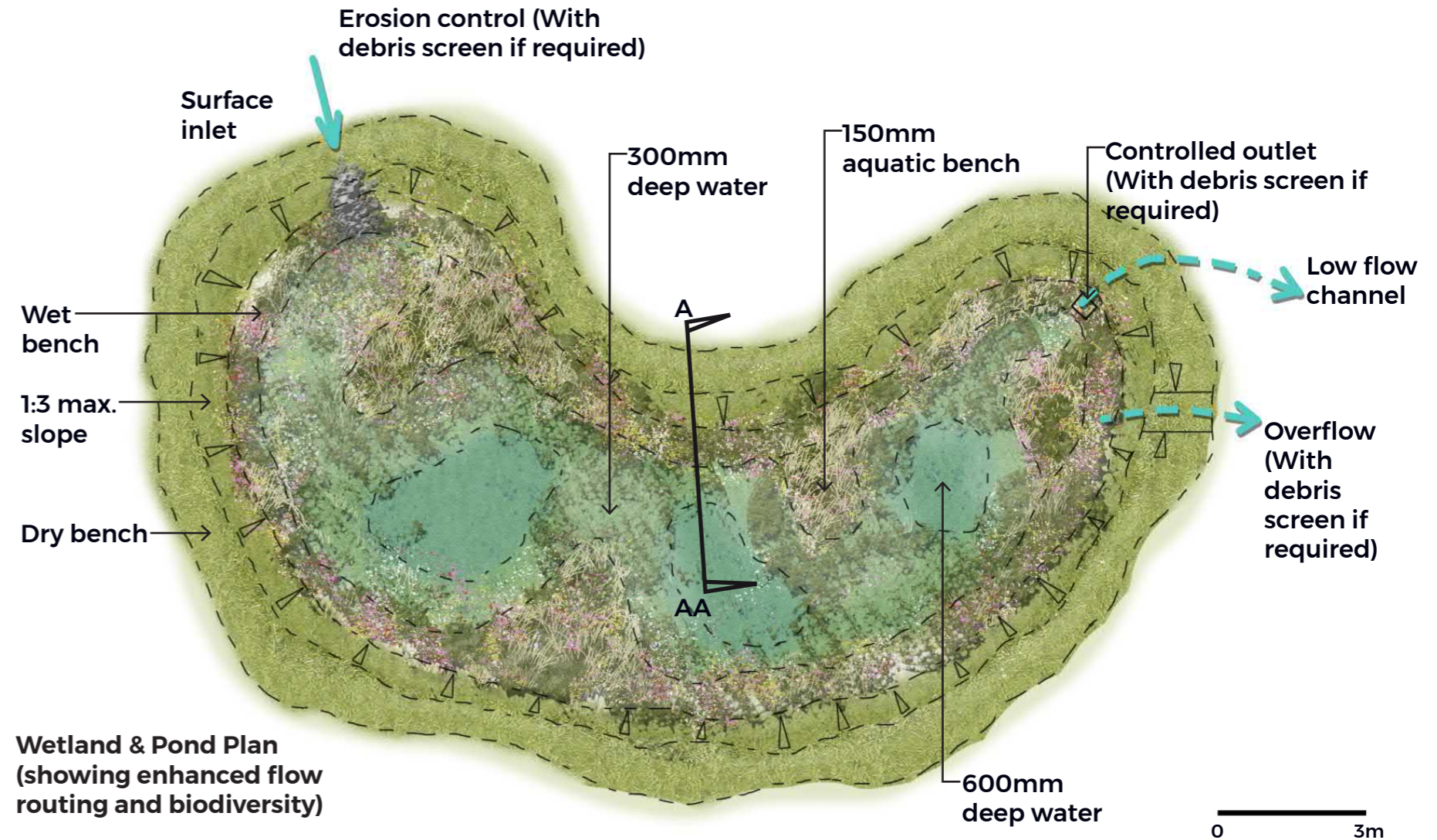
Wetlands & Ponds

Wetlands are a series of water treatment features made up of shallow depressions covered in marshy vegetation. To increase the effectiveness of the wetlands in the development, a number of small ponds which will hold permanent or semi-permanent amount of water will be incorporated in the wetland system.

The system will be able to store large volumes of surface water runoff and provide treatment for soluble pollutants. In addition, it will offer significant amenity, ecological, and economic value too.

Effectively designed wetlands and ponds should only receive silt-free surface water runoff, however, with the addition of ponds in the wetland, slightly polluted runoff will be able to be managed due to the ability of micro-organisms within the deeper water to process this pollution.

Where possible a Wetland or Pond water feature will be the preferred option. In extenuating circumstances Detention and Infiltration Basins will be considered.

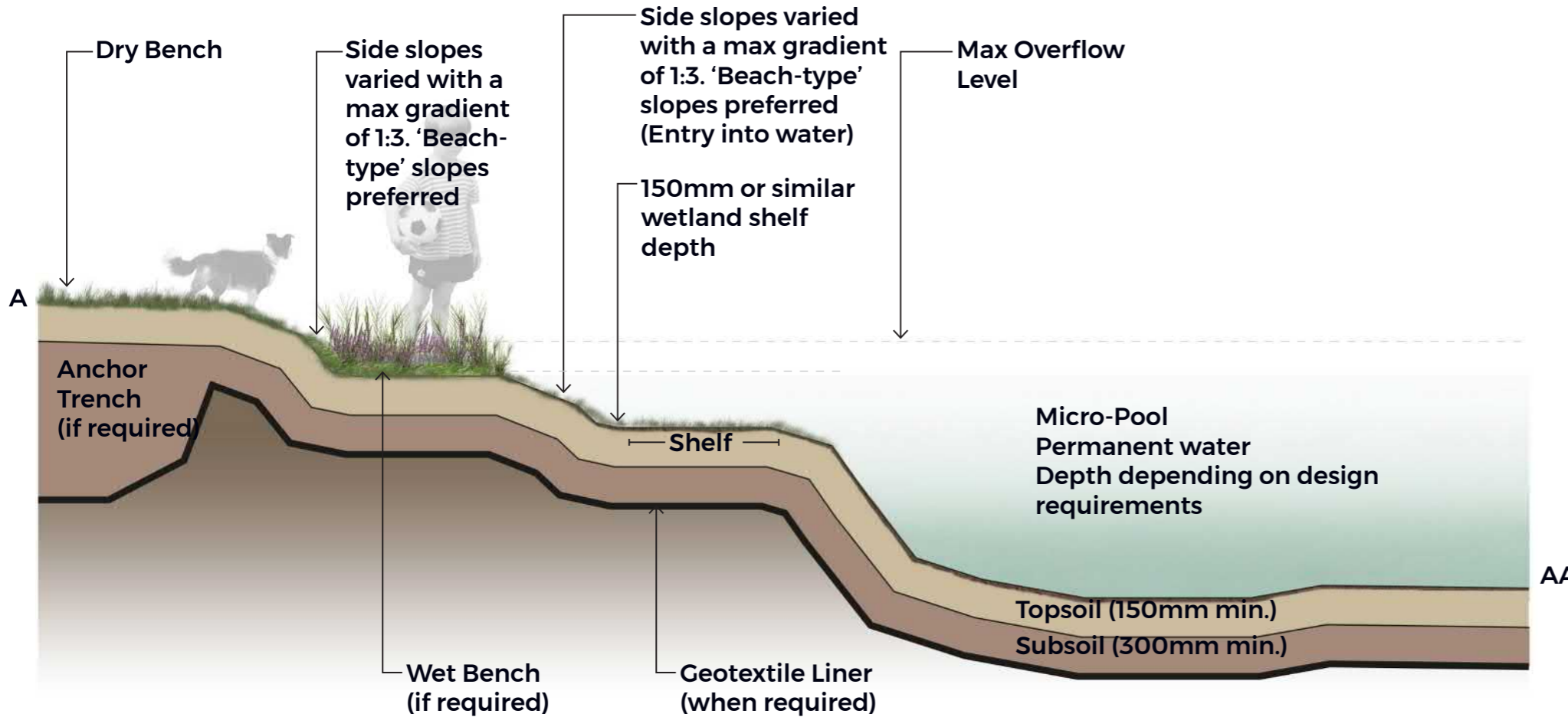


SuDS Specification

- Wetlands and ponds should mimic their natural elements and processes wherever possible
- The whole system should be designed to clean, store and convey surface water runoff to the next part of the management train
- It should retain the treatment volume for a defined area of impermeable hard surface
- A sediment forebay should be included to intercept silt but is unnecessary if source control features are in place further upstream
- There should be a continuous baseflow in the system
- A dry bench, either grass or hardstanding, of minimum width of 1m should be included, to allow people to stand safely before descending to the more accessible areas of the system, which will also enable easier maintenance
- A variation in depth is recommended for treatment and ecological reasons, however water depths greater than 600mm are not required for habitat, safety, and maintenance reasons
- Side slopes should be varied with a maximum gradient of 1:3, with a preferred maximum gradient of 1:6, both for ease of access and maintenance. 'Beach-type' slopes preferred
- Liners may be required to retain a permanent water volume
- The wetland and pond system should be located at the end of the management train to ensure that clean water and controlled flows enter it
- Inlets and outlets should be placed to maximise the flow path through the system, assisted by its shape, islands and baffles, if necessary. The outlet invert will be at the permanent water level of the system
- A number of smaller pond features in a linked wetland chain will be able to fit into the development more easily, and will allow simple access for maintenance and benefit biodiversity
- Water should flow into the system in a controlled way via a robust, simple and easily maintained control structure that is necessary to limit flows from the pond unless all flows have been controlled further up the management train
- The system requires an overflow to allow for design exceedance or outlet blockage
- Planting of the system should follow guidance set out in this document

Water Management

Sectional Diagram: Wetland pond (n.t.s)



Plant species

Meadow Grass

- *Agrostis capillaris*
- *Alopecurus pratensis*
- *Anthoxanthum odoratum*
- *Briza media*
- *Cynosurus cristatus*
- *Deschampsia cespitosa*
- *Festuca rubra*
- *Hordeum secalinum*
- *Schedonorus pratensis* - (*Festuca pratensis*)

Wild Flowers (Dry Zone)

- *Achillea millefolium*
- *Achillea ptarmica*
- *Betonica officinalis* - (*Stachys officinalis*)
- *Centaurea nigra*
- *Filipendula ulmaria*
- *Galium verum*
- *Geum rivale*
- *Leucanthemum vulgare*
- *Lotus pedunculatus*
- *Plantago lanceolata*
- *Primula veris*
- *Prunella vulgaris*
- *Ranunculus acris*
- *Rhinanthus minor*
- *Rumex acetosa*
- *Sanguisorba officinalis*
- *Silaum silaus*
- *Silene flos-cuculi* - (*Lychnis flos-cuculi*)
- *Succisa pratensis*

Wild flowers (Damp Zone)

- *Achillea ptarmica*
- *Angelica sylvestris*
- *Caltha palustris*
- *Eupatorium cannabinum*
- *Filipendula ulmaria*
- *Geum rivale*
- *Hypericum tetrapterum*
- *Iris pseudacorus*
- *Lotus pedunculatus*
- *Lycopus europaeus*
- *Lythrum salicaria*
- *Mentha aquatica*
- *Pulicaria dysenterica*
- *Ranunculus acris*
- *Scrophularia auriculata*
- *Silene flos-cuculi* - (*Lychnis flos-cuculi*)
- *Succisa pratensis*
- *Vicia cracca*

Maintenance

Regular Maintenance (Monthly)

- Litter & debris removal from site
- Check and clear inlets and overflow structures

Regular Maintenance (As required)

- Amenity grass cutting at 35-50mm
- Grass cutting to access routes, overflows and basin where required at 75-100mm not to exceed 150mm

Regular Maintenance (Annually)

- Meadow grass, where appropriate, cut at 50mm and remove to wildlife or compost piles

Occasional Tasks (As required)

- Remove leaf accumulation
- Cut back overhanging branches to allow dense vegetation growth
- Remove sediments from forebay, inlets and pre-treatment structures

Remedial Work (As required)

- Inspect and repair damage to inlets, banks and overflows
- Hollow tine and scarifying of surface if infiltration reduces over time

(The SuDS Manual C753 - CIRIA, 2015)

Water Management

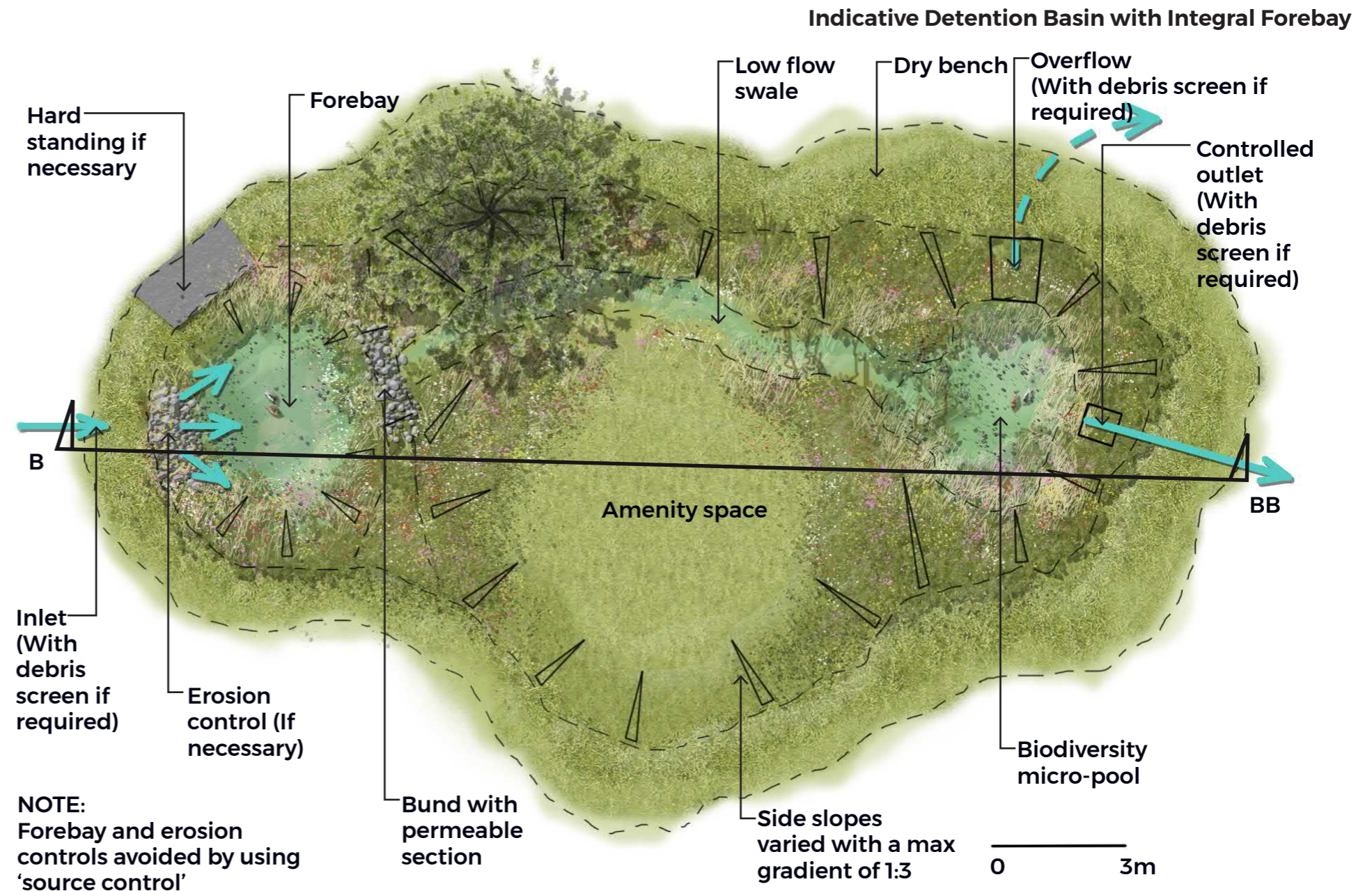
Detention Basins

Detention basins are excavated depressions in the landscape which store surface water runoff and either allow it to infiltrate into the ground or drain out at a controlled rate.

Like many other SuDS techniques, detention basins have many wider benefits, aside from just managing water, especially when they are planted with suitable and interesting plant species. For example, they can provide opportunities for play, informal sport, social/amenity space, and ecological habitat creation.

Source control measures located upstream that inhibit silt and pollution entering into the basin and reduce the amount of surface water runoff reaching the basin, must be implemented so to maximise its effectiveness. Doing this means that forebays and substantial erosion control may not be needed, therefore facilitating better integration into the landscape and a reduction in maintenance.

Only to be considered when a Wetland or Pond water feature cannot be implemented.

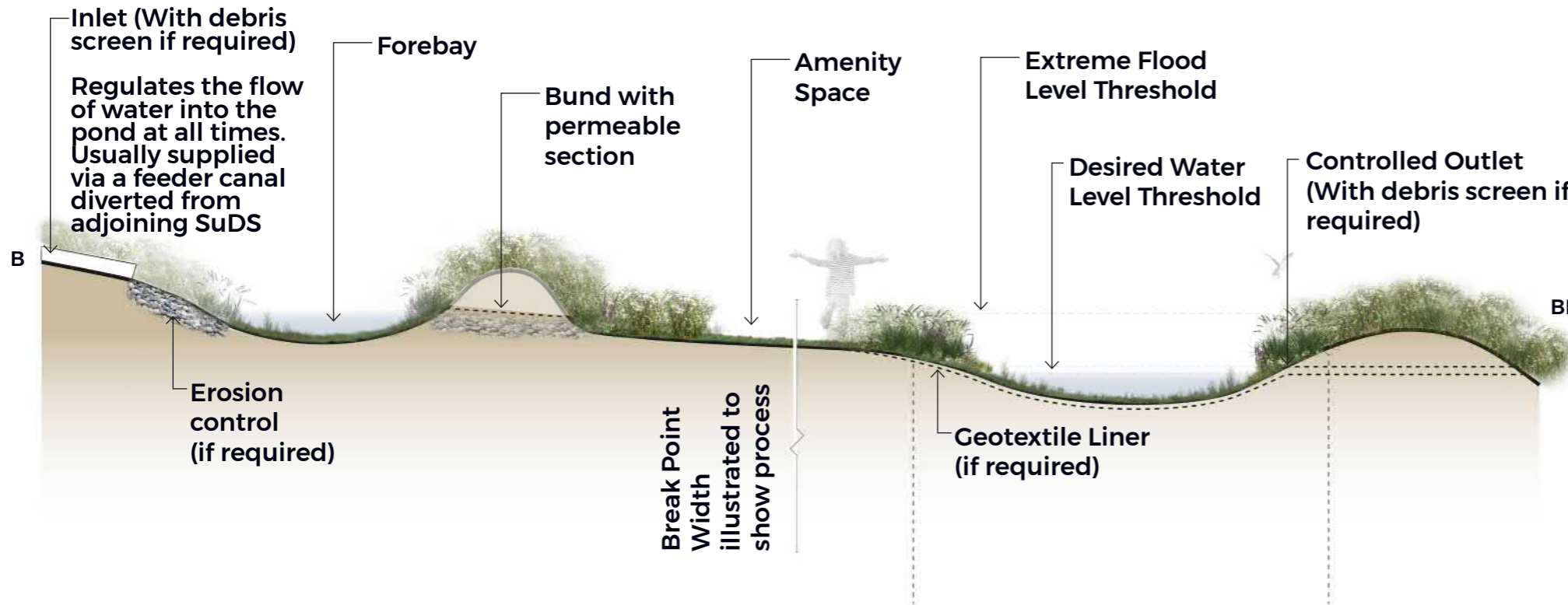


SuDS Specification

- Silt should be intercepted at source wherever possible or be intercepted in a forebay if this is not possible
- The flow of surface water runoff into the basin should be from source control features, if not, an erosion control structure will be needed to manage the flow
- The basin should have a minimum of 2:1 to 5:1 length to width ratio, and side slopes varied with an absolute gradient of 1:3, but a preferred maximum of 1:6. 'Beach-type' slopes are preferred
- Detention basins should have an overflow
- A 1:100 fall to the outlet should be implemented. Falls will be reduced where space for habitat or wetland is required
- Areas for recreation will be at a higher level compared to the low flow of water
- Unless there is a micro-pool, there should be a controlled outlet at or just below ground level
- Basins should be integrated into the landscape design to provide the associated benefits, and to encourage informal policing by the local neighbourhood
- A grassed area should be incorporated as amenity space
- Access points, paths and verges are to be regularly mown to 75-100mm
- Basins can be on-line, or off-line when a flow diverter will be needed to store large volumes of surface water runoff
- For safety reasons, surface water runoff storage depth should not be more than 600mm
- Discharge route and nature of overflow to be agreed with Knowsley Council

Water Management

Indicative Sectional Diagram: Detention Basin (n.t.s)



Plant species

Meadow Grass

- *Agrostis capillaris*
- *Alopecurus pratensis*
- *Anthoxanthum odoratum*
- *Briza media*
- *Cynosurus cristatus*
- *Deschampsia cespitosa*
- *Festuca rubra*
- *Hordeum secalinum*
- *Schedonorus pratensis* - (*Festuca pratensis*)

Wild flowers (Damp Zone)

- *Achillea ptarmica*
- *Angelica sylvestris*
- *Caltha palustris*
- *Eupatorium cannabinum*
- *Filipendula ulmaria*
- *Geum rivale*
- *Hypericum tetrapterum*
- *Iris pseudacorus*
- *Lotus pedunculatus*
- *Lycopus europaeus*
- *Lythrum salicaria*

Wild Flowers (Dry Zone)

- *Achillea millefolium*
- *Achillea ptarmica*
- *Betonica officinalis* - (*Stachys officinalis*)
- *Centaurea nigra*
- *Filipendula ulmaria*
- *Galium verum*
- *Geum rivale*
- *Leucanthemum vulgare*
- *Lotus pedunculatus*
- *Plantago lanceolata*
- *Primula veris*
- *Prunella vulgaris*
- *Ranunculus acris*
- *Rhinanthus minor*
- *Rumex acetosa*
- *Sanguisorba officinalis*
- *Silaum silaus*
- *Silene flos-cuculi* - (*Lychnis flos-cuculi*)
- *Succisa pratensis*
- *Vicia cracca*

Maintenance

Regular Maintenance (Monthly)

- Litter & debris removal from site
- Inspect and clear inlets, outlets, control structures and overflows

Regular Maintenance (As required)

- Amenity grass cutting/strimming at 35-50mm
- Grass cutting to access routes, overflows and basin where required at 75-100mm not to exceed 150mm
- Manage wetland planting in micropools by cutting and remove to wildlife or compost piles, ensure there is not a species dominating / becoming excessive
- Manage weeds, removing by hand where practicable
- Monitor water levels, leave habitats undisturbed if possible

Regular Maintenance (Annually)

- Meadow grass, where appropriate, cut at 50mm and remove to wildlife or compost piles

Occasional Tasks (As required)

- Remove leaf accumulation
- Cut back overhanging branches to allow dense vegetation growth
- Remove sediments from forebay, inlets and pre-treatment structures

Remedial Work (As required)

- Inspect and repair damage to inlets, outlets, banks and overflows

(The SuDS Manual C753 - CIRIA, 2015)

Water Management

Infiltration Basins

Infiltration basins are similar to detention basins in that they store surface water runoff, except that they do not allow any of it to drain out through a controlled outlet. The only way the water exits the basin is by infiltrating directly into the ground.

Usually, infiltration basins will collect surface water runoff from small areas and are 'off-line', meaning they do not receive upstream stormwater runoff. Instead, upstream runoff bypasses the infiltration basin upstream. This is to prevent siltation, excessive pollution and effects of spillage.

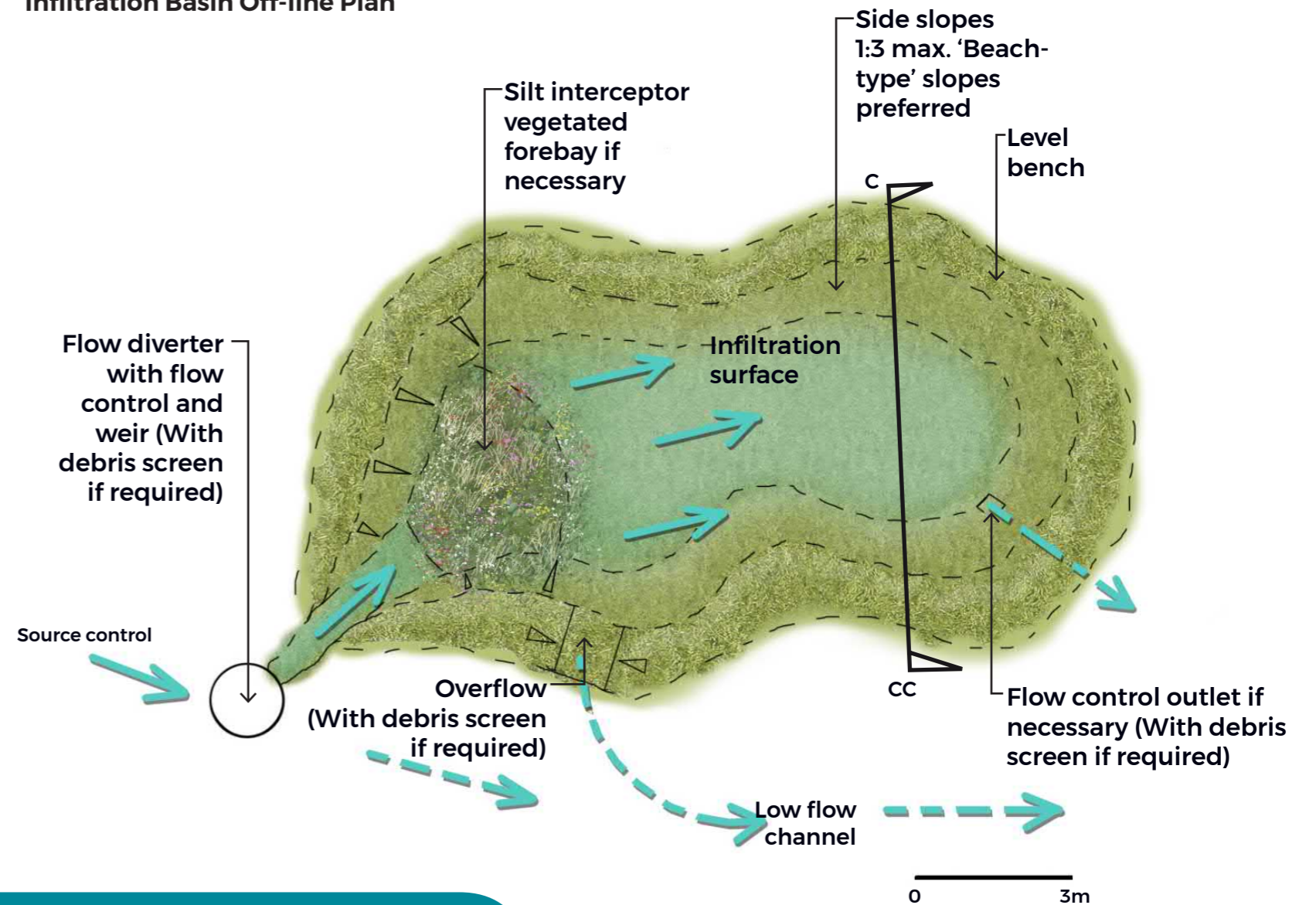
It is crucial that silt and pollution is prevented from entering the infiltration basin because this will help to reduce clogging and ensure that the water infiltrating into the ground is clean. Furthermore, infiltration basins are not suitable for areas where there is likely to be increased levels of pollution, for instance industrial sites.

Only to be considered when a Wetland or Pond water feature cannot be implemented.

SuDS Specification

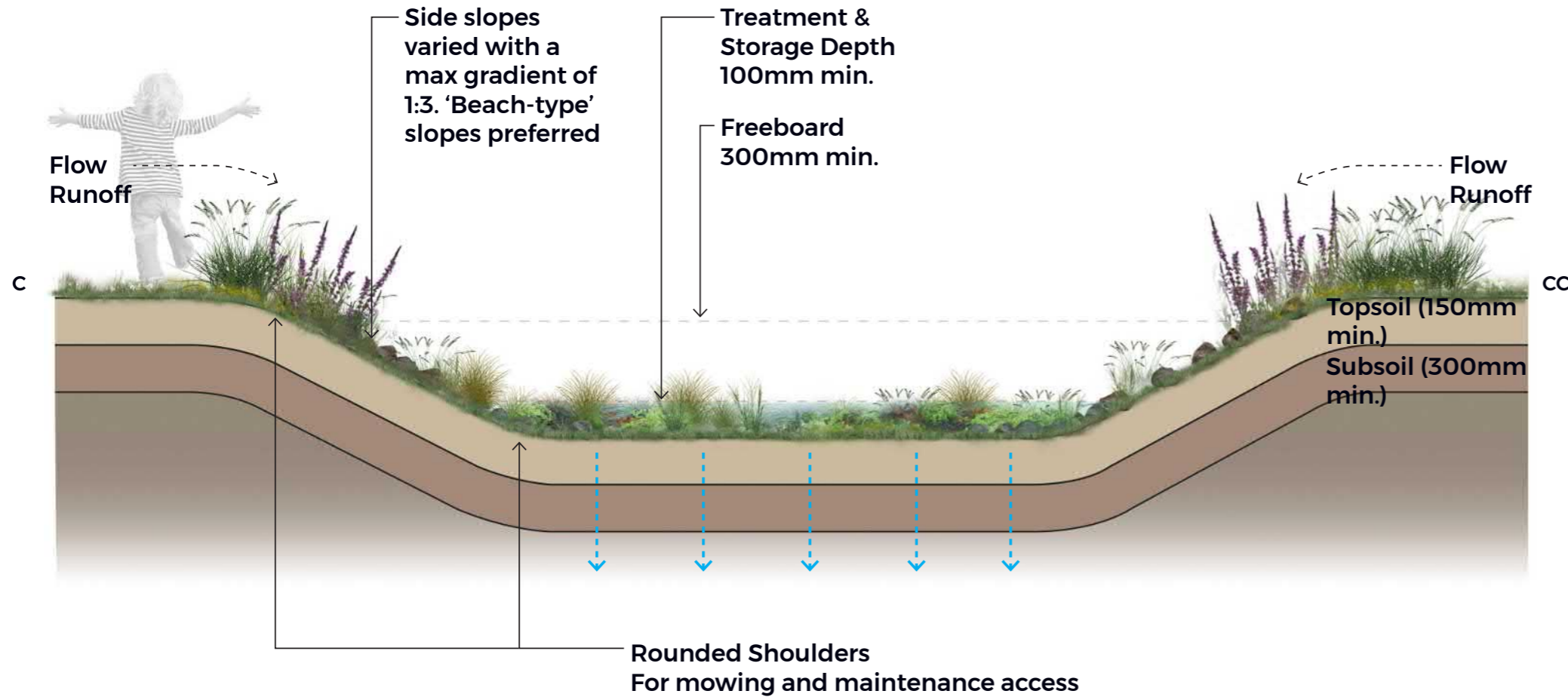
- Geo-technical tests should be undertaken to analyse the infiltration potential and stability of the soil and subsoil, as well as the likely pathways of infiltration, and the risk to surrounding features
- Silt and pollution should be removed upstream in source control features
- An inlet flow spreader is required to distribute flows across the infiltration basin ideally using a widening grass channel inlet
- The base of the basin should be level to encourage even infiltration with a slight fall of between 1:100 and 1:200 along the basin to distribute water evenly
- The water table should be at least 1m below the surface
- Side slopes to the basin should be an absolute 1:3 maximum with a preferred maximum of 1:6. There should also be clear access for maintenance. 'Beach-type' slopes are preferred
- Basins require an overflow to allow for design exceedance or outlet blockage
- Informal use of infiltration basins should take into account the risk of compaction of the base, so vehicle access must be prevented

Infiltration Basin Off-line Plan



Water Management

Sectional Diagram: Infiltration Basin (n.t.s)



Plant species

Meadow Grass

- *Agrostis capillaris*
- *Alopecurus pratensis*
- *Anthoxanthum odoratum*
- *Briza media*
- *Cynosurus cristatus*
- *Deschampsia cespitosa*
- *Festuca rubra*
- *Hordeum secalinum*
- *Schedonorus pratensis* - (*Festuca pratensis*)

Wild flowers

- *Achillea ptarmica*
- *Angelica sylvestris*
- *Caltha palustris*
- *Eupatorium cannabinum*
- *Filipendula ulmaria*
- *Geum rivale*
- *Hypericum tetrapterum*
- *Iris pseudacorus*
- *Lotus pedunculatus*
- *Lycopus europaeus*
- *Lythrum salicaria*
- *Mentha aquatica*
- *Pulicaria dysenterica*
- *Ranunculus acris*
- *Scrophularia auriculata*
- *Silene flos-cuculi* - (*Lychnis flos-cuculi*)
- *Succisa pratensis*
- *Vicia cracca*

Maintenance

Regular Maintenance (Monthly)

- Litter & debris removal from site
- Check and clear inlets and overflow structures

Regular Maintenance (As required)

- Amenity grass cutting at 35-50mm
- Grass cutting to access routes, overflows and basin where required at 75-100mm not to exceed 150mm

Regular Maintenance (Annually)

- Meadow grass, where appropriate, cut at 50mm and remove to wildlife or compost piles

Occasional Tasks (As required)

- Remove leaf accumulation
- Cut back overhanging branches to allow dense vegetation growth
- Remove sediments from forebay, inlets and pre-treatment structures

Remedial Work (As required)

- Inspect and repair damage to inlets, banks and overflows
- Hollow tine and scarifying of surface if infiltration reduces over time

(The SuDS Manual C753 - CIRIA, 2015)

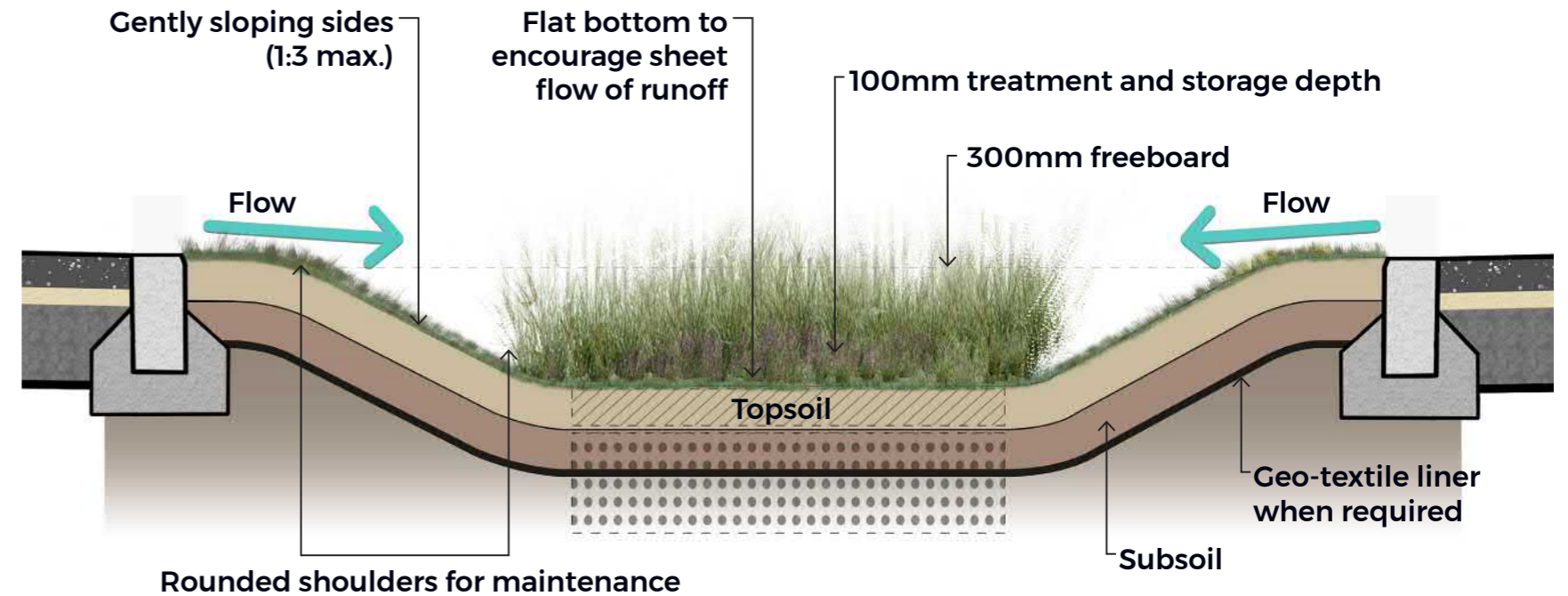
Water Management

Swales

Swales are linear channels with a flat base that encourage sheet flow of water through suitable planting. Swales will be used on Commercial Street typology to collect, transport and sometimes store surface water runoff allowing water to infiltrate into the ground.

Swales will collect surface water runoff laterally over kerb edge inlets that reduce the rate of flow. Erosion control and a silt collection arrangement will be needed.

During storm events and heavy rainfall, when the infiltration capacity of the swale has been exceeded, these systems will deposit overflow water to the next drainage feature in the management train.



Sectional diagram: Swale

SuDS Specification

- Swales should be shallow with side slopes of an absolute maximum gradient of 1:3 but a preferred maximum of 1:6, to allow flow across the edge, easy maintenance and safe access
- Swale depth should not exceed 450mm
- A 100-150mm depth for normal flows uses the vegetation to reduce flow and allow filtration
- A maximum 300mm storage above normal flow depth, to include freeboard if necessary, provides an acceptable swale profile
- Flow rate must be restricted to 1-2m/s or 1:50 maximum slopes to prevent erosion and ensure effective pollution control
- Slopes along the swale less than 1:100 can increase permanent wetness depending on soil conditions
- Base width must be minimum 1m to allow effective maintenance and prevent gulying of the base
- Swales are to be planted in accordance with planting specifications detailed in a later section of this document

Maintenance

Regular Maintenance (Monthly)

- Litter & debris removal from site
- Check and clear inlets and overflow structures

Regular Maintenance (As required)

- Vegetation to be cut as 50mm and remove to wildlife or compost piles

Occasional Tasks (As required)

- Remove leaf accumulation

Remedial Work (As required)

- Repair erosion, level uneven surfaces or damage by re-seeding
- Remove silt and spread locally outside design profile and reinstate surface
- Repair inlets, outlets or check dam structures to design detail

(The SuDS Manual C753 - CIRIA, 2015)

Plant species

Meadow Grass

- *Agrostis capillaris*
- *Alopecurus pratensis*
- *Anthoxanthum odoratum*
- *Briza media*
- *Cynosurus cristatus*
- *Deschampsia cespitosa*
- *Festuca rubra*
- *Hordeum secalinum*
- *Schedonorus pratensis* - (*Festuca pratensis*)

Wild Flowers

- *Achillea millefolium*
- *Achillea ptarmica*
- *Betonica officinalis* - (*Stachys officinalis*)
- *Centaurea nigra*
- *Filipendula ulmaria*
- *Galium verum*
- *Geum rivale*
- *Leucanthemum vulgare*
- *Lotus pedunculatus*
- *Plantago lanceolata*
- *Primula veris*
- *Prunella vulgaris*
- *Ranunculus acris*
- *Rhinanthus minor*
- *Rumex acetosa*
- *Sanguisorba officinalis*
- *Silaum silaus*
- *Silene flos-cuculi* - (*Lychnis flos-cuculi*)
- *Succisa pratensis*



Tree Planting

The following tree species correlate to the table on page 54, indicating species of varying sizes and form specific to their particular setting in each street and Character Area.



Norway Maple example

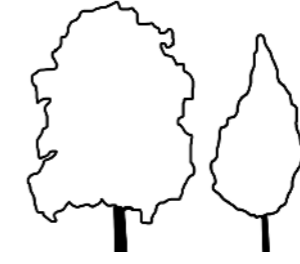
Tree form & height



Main Street

(Large: 25m+)

Tilia x europaea "Pallida" has been chosen to create a strong tree lined avenue along the Main Street, which is a reference back to the original nature of the country estate character. Trees along Main Street to be planted at a large size for instant impact.



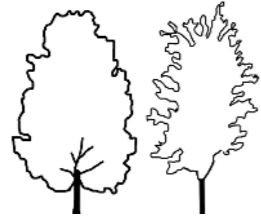
Residential Avenue

(Medium to large: 15-25m)

The Residential Avenues where the road decreases to 6m width, will be characterised by other large avenue tree species, with each character area having its own species lined along the roadway as detailed below. The Western character area will differ slightly from the other areas as this will have a mix of native species which will be more in-formal where space permits.

<p>Halsnead West (Woodland)</p>	<p>---</p>	
<p>North Halsnead (Urban fringe)</p>		
<p>Halsnead Fox's Bank (Village green)</p>	<p>---</p>	
<p>Halsnead South</p>	<p>---</p>	

Tree Planting

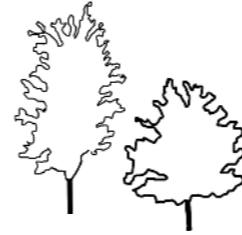


Access Street

(Medium: 10-15m)

As the streets quieten, these become Access Streets, where the trees will be of a medium size and are set within the residential gardens.

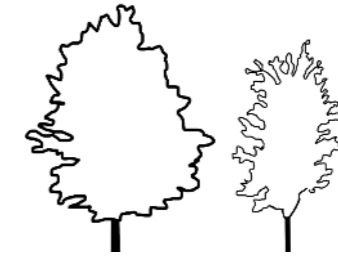




Lane

(Small to medium: 7-15m)

The smallest scale of street will be the lanes, where the streets will be paved shared spaces, instead of carriageway and footpath. The shared space will be framed by small species trees with ornamental and flowering interest.



Commercial Street

(Medium to large: 10-20m)

As outlined in the HSPD, the commercial area is anticipated to be primarily used for large format logistics and distribution centres, and will include wildlife corridors. Native hedgerows and trees planted at large sizes in grass verges will be provided along boundaries to enhance the main corridors and at key focal points. There will be an emphasis on softening and framing surrounding commercial buildings.



Note: Numbers correspond with table overleaf.

Tree Planting

Tree Planting			Halsnead West (Woodland)						North Halsnead (Urban Fringe)						Halsnead Fox's Bank (Village Green)						Halsnead South				
Species	Common Name	Soil Volume (m ³)	Main Street	Residential Avenue	Access Street	Lane	Junction	Entrance	Public open space	Main Street	Residential Avenue	Access Street	Lane	Junction	Entrance	Public open space	Main Street	Residential Avenue	Access Street	Lane	Junction	Entrance	Public open space	Commercial Street	
1	<i>Acer campestre</i> 'Elsrijk'	Field Maple	No Main Street in Halsnead West		✓														✓	✓					
2	<i>Acer platanoides</i> Columnare	Norway Maple										✓	✓										✓		✓
3	<i>Alnus cordata</i>	Italian Alder								✓									✓						
4	<i>Amelanchier x grandiflora</i> 'Robin Hill'	Shadwood spp.												✓											
5	<i>Betula ermanii</i>	Erman's Birch								✓							✓								
6	<i>Betula</i> Species Ex. <i>albosinensis</i> 'Fascination'	Birch spp.					✓							✓							✓				✓
7	<i>Betula utilis</i> 'Jacquemontii'	Himalayan Birch spp.						✓							✓							✓			
8	<i>Carpinus betulus</i>	European Hornbeam								✓															
9	<i>Carpinus betulus</i> 'Frans Fontaine'	Hornbeam spp.			✓							✓													✓
10	<i>Crataegus x prunifolia</i>	Broad Leaved Cockspur Thorn					✓														✓				
11	<i>Fagus sylvatica</i>	Beech								✓							✓							✓	
12	<i>Liquidambar styraciflua</i>	American Sweet Gum																	✓			✓			
13	<i>Liriodendron tulipifera</i>	Tulip Tree														✓									
14	<i>Pinus Sylvestris</i>	'Scots Pine'								✓															
15	<i>Prunus padus</i>	Bird Cherry															✓								
16	<i>Prunus</i> 'Umineko'	Umineko Cherry												✓											
17	<i>Prunus avium</i> 'Plena'	Double Gean										✓	✓												
18	<i>Pyrus calleryana</i> 'Chanticleer'	Callery Pear										✓													
19	<i>Quercus Ilex</i>	Holm Oak			✓					✓															
20	<i>Quercus robur</i>	Pendunculate Oak								✓							✓							✓	
21	<i>Sorbus aria</i> 'Majestica'	Whitebeam 'Majestica'												✓											
22	<i>Sorbus aucuparia</i>	Rowan / Mountain Ash					✓																		✓
23	<i>Tilia cordata</i> 'Greenspire'	Small-leaved Lime			✓	✓		✓	✓											✓	✓				
24	<i>Tilia x flavescens</i> 'Glenleven'	Little-leaved Linden										✓													✓
25	<i>Tilia x europaea</i> 'Pallida'	King's Lime							✓		✓											✓			
26	<i>Tsuga heterophylla</i>	'Western Hemlock'																						✓	

Tree Planting Specification

All specimens should meet the criteria defined in the national plant specification and be planted in accordance with British Standards, with replacements to be carried out as soon as possible to ensure good plant cover at all times.

For matrix planting refer to Woodland planting details

General tree planting minimum sizes

Main streets: Semi-mature 30-35cm girth

Junctions: Semi-mature 30-35cm girth

Access streets: Semi-mature 20-25cm girth

Residential Avenues: Semi-mature 20-25cm girth

Entrances: Semi-mature 20-25cm girth

Public Open Space: Semi-mature 20-25cm girth

Gardens: Extra heavy standards 18-20cm girth

Woodland tree planting

- A minimum of 400mm of topsoil required for all woodland planting
- Native species to be used
- Planting to be carried out between November and February
- Planting to be spaced randomly in species groups.
- Incorporate feathered species and stake with a short single stake
- All plants to be protected with a spiral tree guard
- 75mm of bark mulch to be spread following planting

Native planting mix and % for Native woodland

(1+1 :Transplant 1.5m Ctr)

Betula pendula	20%
Carpinus betulus	2%
Corylus avellana	5%
Crataegus monogyna	7%
Ilex aquifolium	2%
Malus sylvestris	2%
Prunus avium	2%
Quercus robur	38%
Sorbus aucuparia	2%

Native planting mix and % for woodland edge planting (1+1 :Transplant 1.0m Ctr)

Betula pendula	7%
Corylus avellana	30%
Crataegus monogyna	20%
Ilex aquifolium	6%
Malus sylvestris	8%
Prunus avium	7%
Rosa canina	10%
Sambucus nigra	5%
Sorbus aucuparia	7%

Fencing Specification

Post and mesh fence to ensure establishment: 1.1m high timber & mesh fence with 100x100x1650mm timber posts, set in concrete at 1.5m centres, 125mm diameter half round timber top and bottom rail with galvanized mild steel 3.15mm diameter woven mesh with 50mm square grid stapled to posts at 100mm centres.

Trees planted in soft landscape

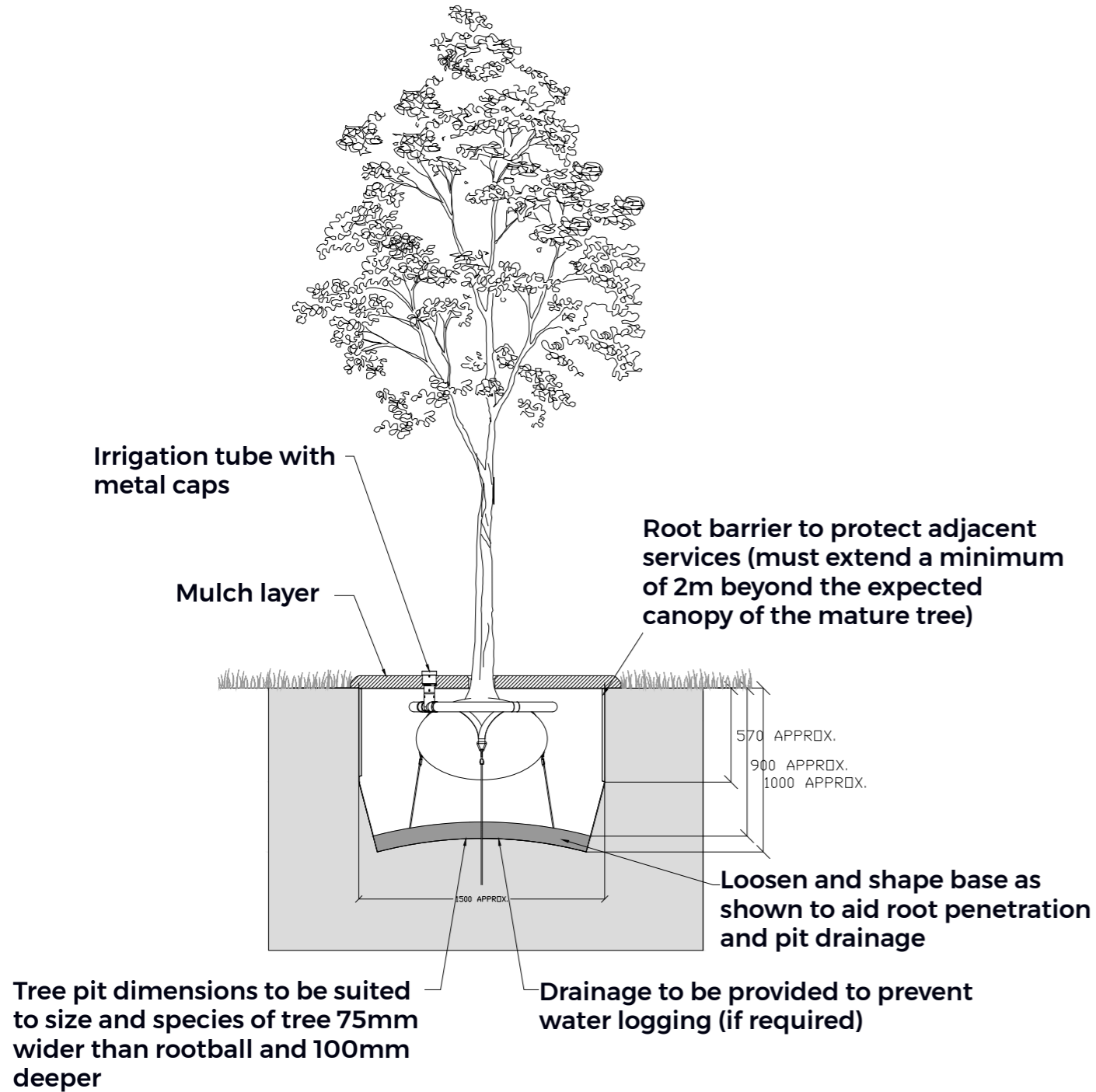
- Front gardens to have a minimum of one tree where possible. Larger gardens to have more trees if possible
- Trees to be minimum size as defined in this document
- Soil volume per trees as defined in the schedule table
- Unless tree is a multi-stem then it should have a clearly defined central leader, with a clear stem height defined in NPS Trees to be planted in line with recommendations in BS 8545 Trees from nursery to independence in the landscape
- All rootball stock larger than 20mm girth to be underground guyed
- All rootball stock smaller than 20mm girth to be staked with a short timber stake
- All trees to have irrigation tube
- Tree pit size to be at least 75mm diameter greater than the rootball and as deep as the rootball. 100mm base of the tree pit to be loosened. Drainage to be designed into the base of the tree pit if infiltration levels are low. Tree

pits in SuDS areas to have an overflow to prevent flooding

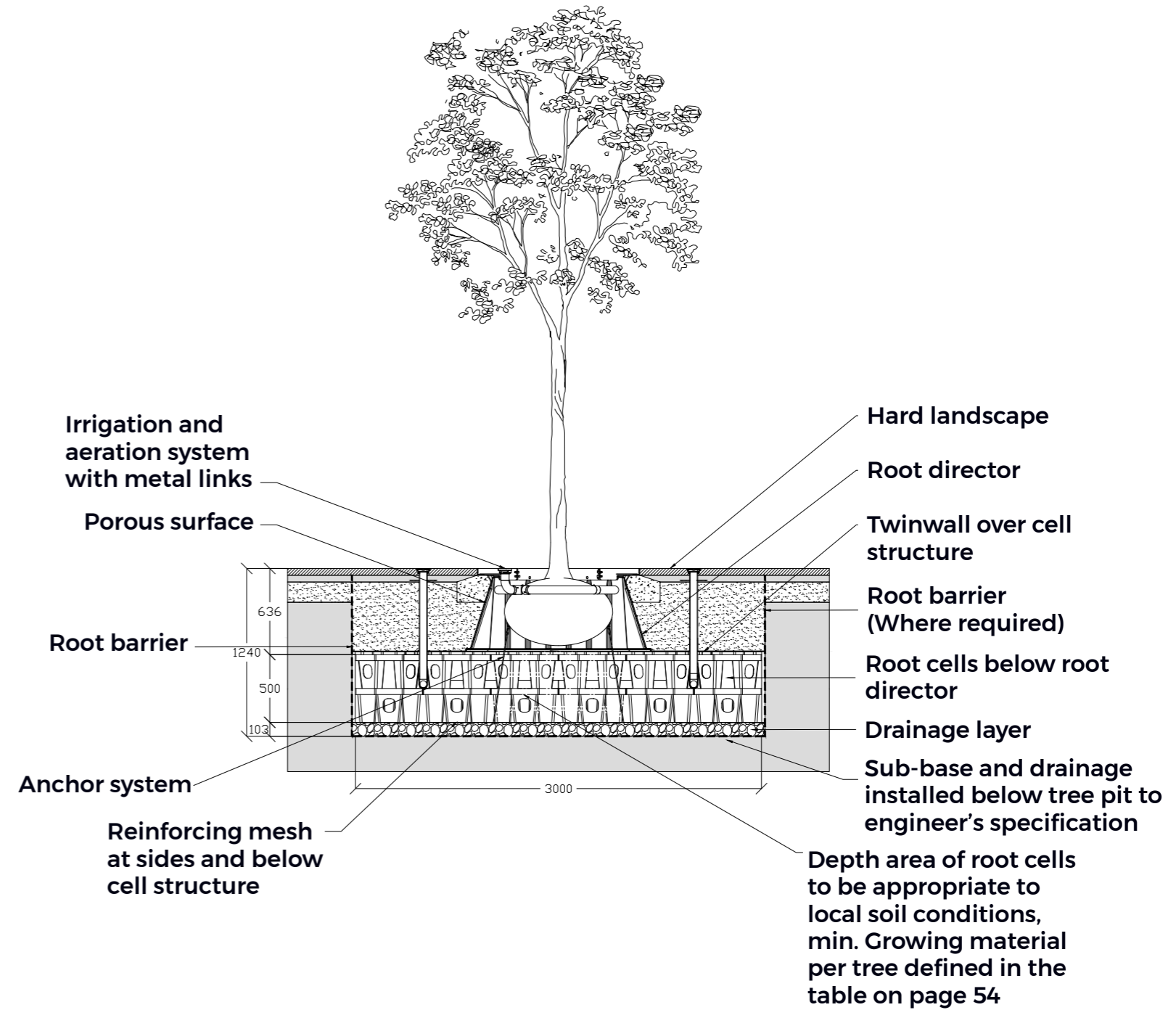
- Back fill with as dug topsoil if suitable, mixed with organic compost
- Imported topsoil to be to BS standard with approved testing certificates and source details
- Slow release fertiliser to be incorporated into the topsoil at the time of planting

Trees planted within hard surfacing

- Trees to be minimum size as defined in this document
- Soil volume per trees as defined in the schedule table
- Unless tree is a multi-stem then it should have a clearly defined central leader, with a clear stem height defined in NPS Trees to be planted in line with recommendations in BS 8545 Trees from nursery to independence in the Landscape
- Tree pits to have structural soil cells or adjacent greenspace to a minimum volume as defined in the table on page 54. Where possible the tree pits shall be joined together with soil cells to increase the rooting space
- 100mm pea gravel drainage layer to base of tree pit – (Drainage pipe / overflow as per engineering design)
- All root ball stock to be underground guyed
- All trees to have irrigation and aeration tubes
- Root director / root barrier to be used to protect from pavement heave (minimum 300mm depth)
- Any adjacent services to be protected with a root barrier at a suitable depth
- Back fill with as dug topsoil if suitable, mixed with organic compost.
- Imported topsoil to be to BS standard with approved testing certificates and source details
- Slow release fertiliser to be incorporated into the topsoil at the time of planting
- Tree pit to be finished with a porous resin bound gravel – colour to match paving
- Trees to be spaced at a maximum of 8m while considering constraints specific to each site and location such as driveways, junctions and services.



Typical detail of tree planting specification in soft landscape



Typical detail of tree planting specification in hard landscape

Maintenance

Trees in soft landscape

- Water as necessary to ensure good establishment
- Undertake basic formative pruning only or to ensure good health of the tree i.e. if signs of disease or damage from vandalism
- Keep area around base of tree weed free and top up mulch annually
- Ensure no mechanical grass cutting machinery is used within a 1m radius around the base of each tree
- Check stakes, tree ties and underground guys and tighten if necessary
- Replace dead or dying trees each winter with a like-for like replacement (as trees mature the replacements will need to be of a size consistent with the surrounding trees)
- Remove stakes and ties when they are no longer required

Trees in hardscape

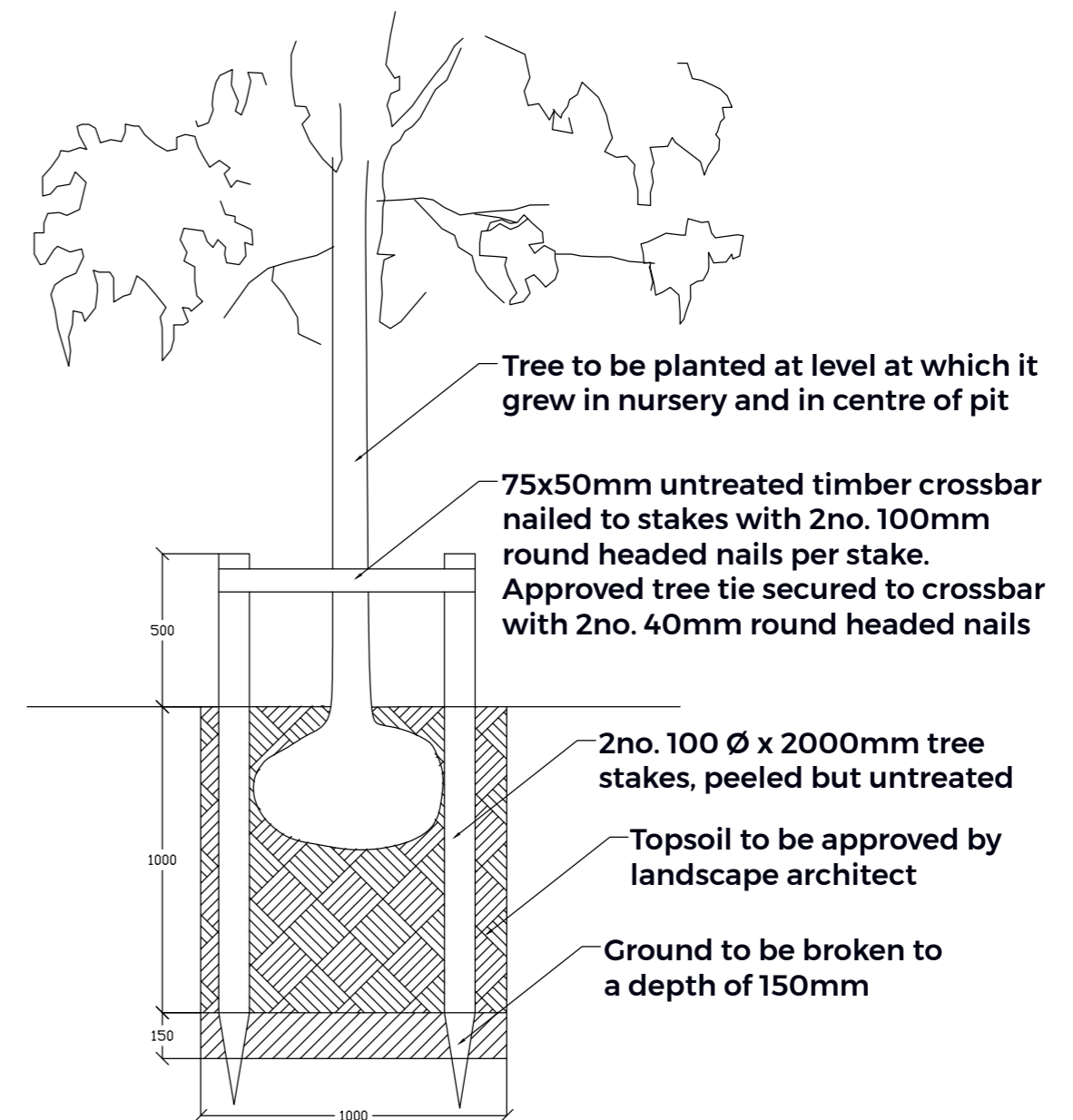
- Water as necessary to ensure good establishment
- Undertake basic formative pruning only or to ensure good health of the tree i.e. If signs of disease or damage from vandalism
- Keep the area around base under the tree grille weed free and litter free and top up mulch / gravel annually
- Apply a suitable fertiliser annually
- Check for signs of vandalism / vehicular damage
- Check stakes, tree ties and underground guys and tighten if necessary
- Replace dead or dying trees each winter with a like-for like replacement (as trees mature the replacements will need to be of a size consistent with the surrounding trees)

Native woodland / woodland edge trees

- Water as necessary to ensure good establishment
- Check stakes and guards are in place and replace where necessary
- Weed control around base of plant (hand weed only if near SuDS / Watercourse)
- Apply compost / fertiliser yearly (years 1-3)
- Prune as necessary to ensure good establishment.
- Replace dead or dying stock each winter and ensure good species diversity is maintained
- Remove guards / stakes at end of year 5
- Once established, coppice woodland understorey such as *Corylus* and *Cornus* on a 3-year cycle

The indicative 5-year maintenance and establishment schedules, included in a later section of this document, should be followed as a minimum standard for establishment of soft landscape areas.

Tree Planting Detail



Typical detail of 18-20mm girth (extra heavy standard) tree planting with short double stake. (Located within front gardens)

Hedge Planting

Hedges will face the footways, and will separate driveways where appropriate, with different species reflected in the different typologies, helping to frame the street and reinforce the character of the different areas. *Carpinus betulus* is used in all the character areas to provide continuity throughout the whole site.

Hedge species in Halsnead West will be predominantly native in keeping with the woodland feel to the area, although some ornamental and evergreen species have been chosen for use in the lanes where a more informal street character is required to frame shared spaces.

North Halsnead includes a mix of native and ornamental species. There is a focus on evergreen species, in particular on the access streets and lanes.

Halsnead Fox's Bank also has a mix of native and ornamental species with a high percentage of flowering and evergreen to reinforce the cottage garden character within in the access street and lanes. Hedges within the Halsnead South area will be mixed native hedges to strengthen wildlife corridors and link through to the Country Park.



Framing private space



Separating driveways



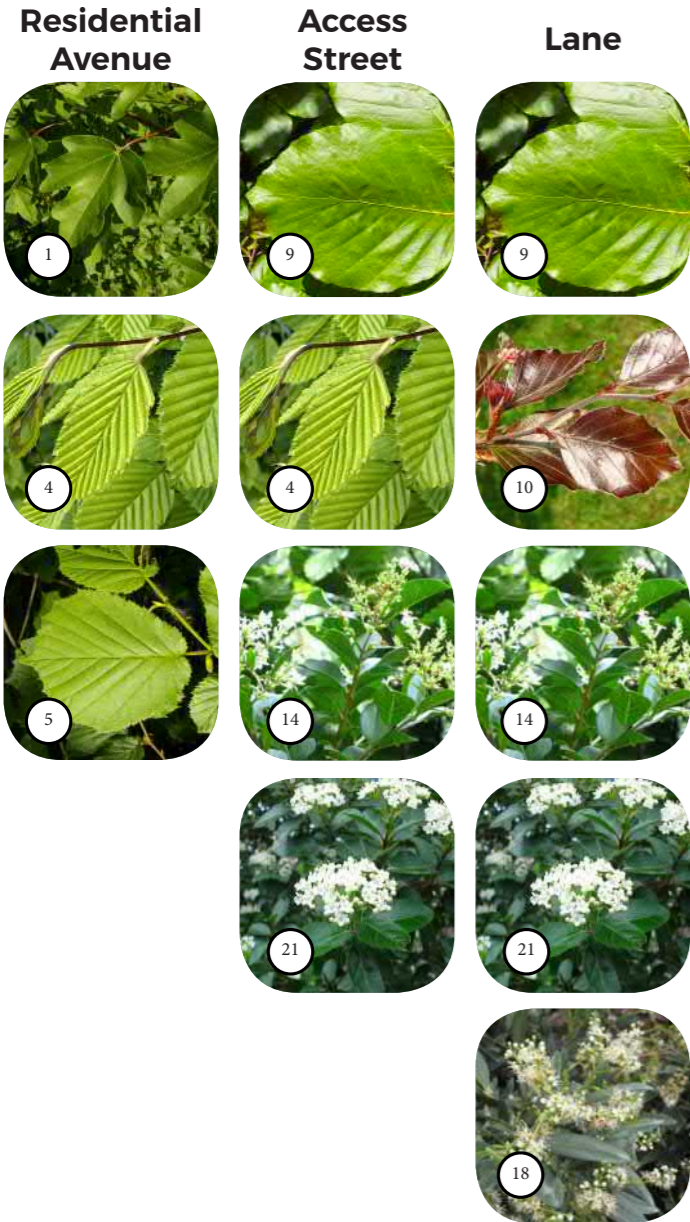
Framing amenity space

Species	Halsnead West (Woodland)			North Halsnead (Urban Fringe)			Halsnead Fox's Bank			Halsnead South	Planting densities no per Lm		
	Residential Avenue	Access Street	Lane	Main Street	Residential Avenue	Access Street	Lane	Residential Avenue	Access Street	Lane	BR	Container min 3L	
1 <i>Acer campestre</i>	✓				✓			✓			✓	6	
2 <i>Aucuba japonica</i> 'Crotonifolia'				✓									5
3 <i>Brachyglottis senecio</i> 'Sunshine'									✓	✓			5
4 <i>Carpinus betulus</i>	✓	✓		✓	✓			✓			✓	6	
5 <i>Corylus avellana</i>	✓				✓			✓			✓	6	
6 <i>Crataegus monogyna</i>											✓	6	
7 <i>Escallonia</i> 'Donard Seedling'						✓	✓		✓				4
8 <i>Escallonia rubra</i> 'Macrantha'							✓						4
9 <i>Fagus sylvatica</i>		✓	✓									6	
10 <i>Fagus sylvatica</i> 'Purpurea'			✓									6	
11 <i>Hebe</i> 'Mrs Winder'										✓			5
12 <i>Hypericum x hidcotense</i> 'Hidcote'							✓		✓				4
13 <i>Lavandula angustifolia</i> 'Munstead'										✓			5
14 <i>Ligustrum ovalifolium</i> 'Aureum'		✓	✓			✓			✓	✓		A	4
15 <i>Ligustrum vulgare</i>	✓				✓			✓			✓	A	4
16 <i>Lonicera nitida</i>						✓							4
17 <i>Prunus laurocerasus</i> 'Otto Luyken'				✓					✓				5
18 <i>Prunus laurocerasus</i> 'Zabeliana'			✓							✓			5
19 <i>Rosa canina</i>											✓	6	
20 <i>Viburnum opulus</i>											✓	6	
21 <i>Viburnum tinus</i>		✓	✓										4
22 <i>Weigela</i> 'Florida Variegata'										✓			4

A - Acceptable

Hedge Planting

Halsnead West (Woodland)



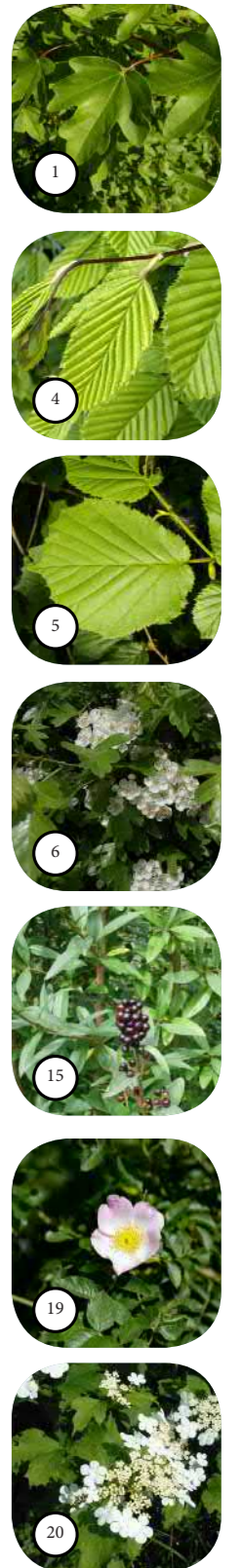
North Halsnead (Urban fringe)



Halsnead Fox's Bank (Village green)



Halsnead South



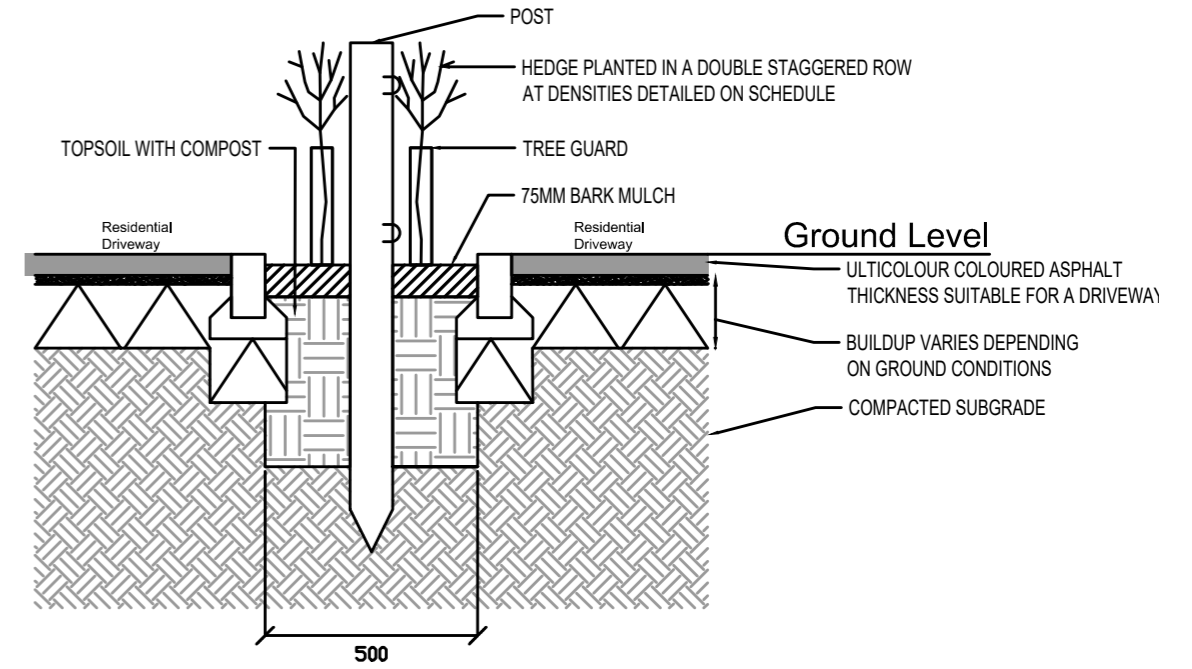
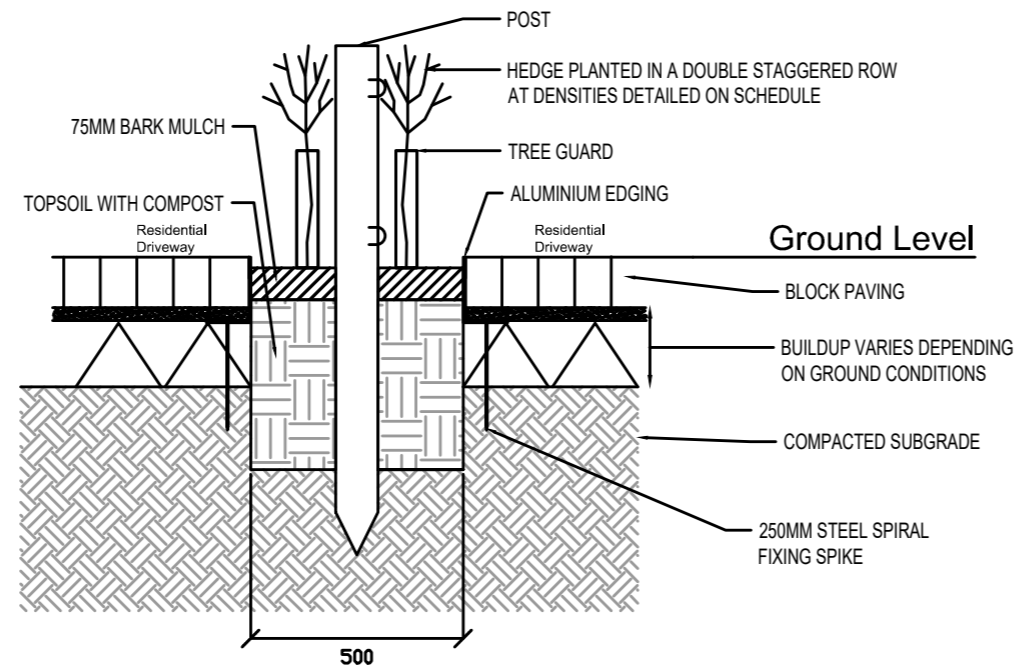
Hedge Planting

Indicative Details

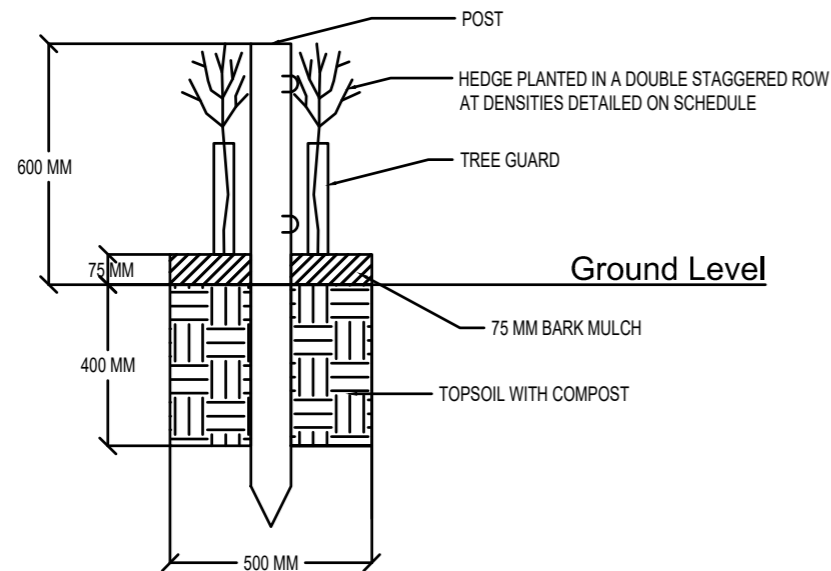
As a general rule, post and wire fencing should be utilised to aid establishment, allow movement of wildlife and set ultimate hedge height.

All hedgerows adjoining the public highway must be of a maximum 0.6m height to ensure compliance with highway safety in Manual for Streets.

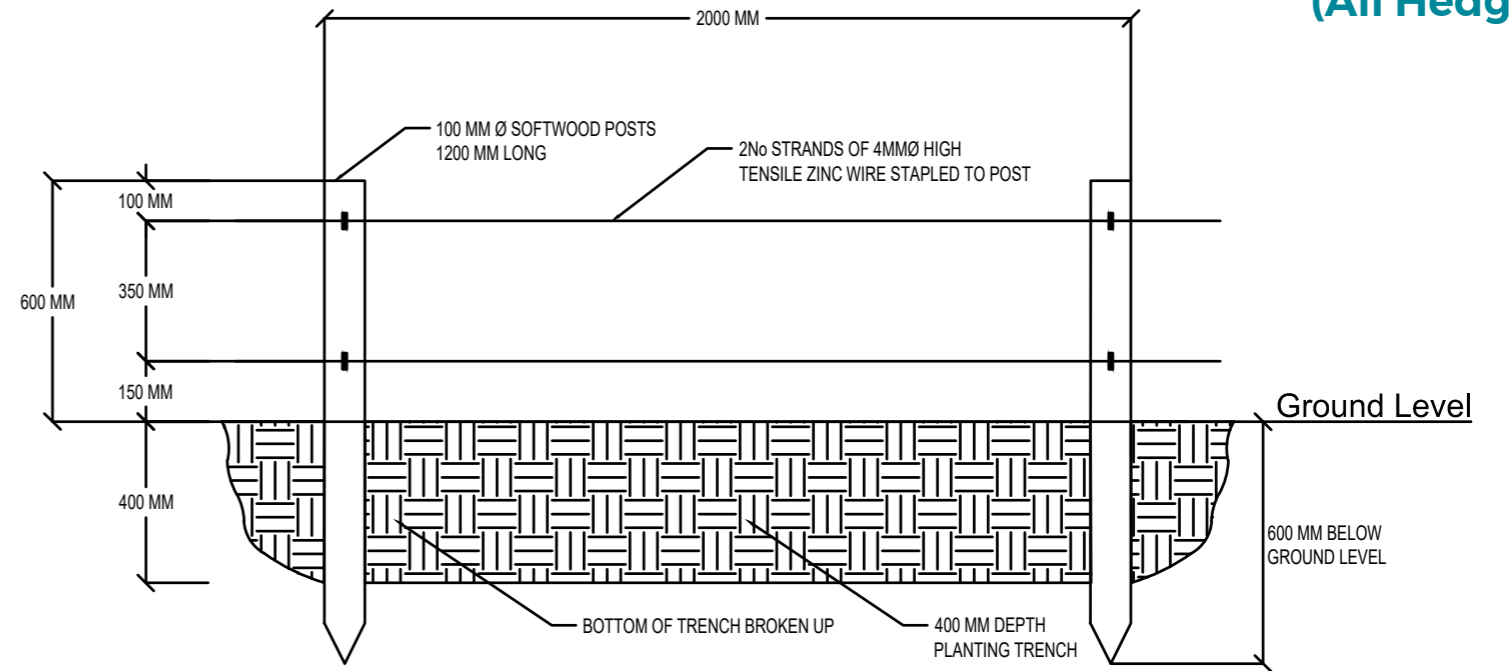
Hedge Planting on Driveways



Hedge Planting (General)



Fence Detail (All Hedges)



Hedge Planting

Hedge Planting Specification

- Container grown plants to be planted at size and density as shown in the schedule
- Planting trench to be 400mm deep x 500mm wide (minimum), bottom 150mm of trench to be loosened to aid drainage
- Post and wire fence / support structure to be installed for all hedges (0.6m in height)
- Hedge planted in a double staggered row spacing as shown on the schedules. Hedge to be planted to either side of the fence. Bare root species to be 40-60cm transplants planted at 6 per linear metre. Container grown ornamental hedges to be 3L pots.
- Back fill with as dug topsoil if suitable, mixed with organic compost. Imported topsoil to be to BS standard with approved testing certificates and source details.
- Slow release fertiliser to be incorporated into the topsoil at the time of planting
- Water immediately following planting
- All bare root stock to be protected with a spiral tree guard
- 75mm of bark mulch to be spread following planting

Native Hedge Planting Mix

(1+1 :Transplant 6/m- Double staggered rows)

Acer campestre	13%
Cornus sanguinea	5%
Corylus avellana	15%
Crataegus monogyna	45%
Euonymus europaeus	5%
Ilex aquifolium	5%
Prunus spinosa	12%

Maintenance

Informal / Native Hedges:

- Water as necessary to ensure good establishment.
- Check stakes and guards are in place and replace where necessary
- Weed control around base of plant (hand weed only if near SuDS / watercourse)
- Apply compost / fertiliser twice yearly (years 1-3)
- Prune as necessary to ensure good establishment. Once hedge has established, trim in January on a 3 year rotation basis (3rd of the hedge to be cut each year - to improve biodiversity and allow fruiting species to produce fruit for wildlife)
- Replace dead or dying stock each winter and gap up if required
- Remove guards / stakes at end of year 5
- Any infill trees planted within hedgerow to be allowed to grow to mature height & shaped to define as clear stem tree

Formal Hedges in Gardens

- All hedges in residential areas and properties to be maintained at a 0.6m height to ensure site lines
- Water as necessary to ensure good establishment
- Check stakes and guards are in place and replace where necessary
- Weed control around base of plant (Hand weed only if near SuDS / Watercourse)
- Apply compost / fertiliser twice yearly (years 1-3)
- Prune as necessary to ensure good establishment once hedge has reached desired height of 1m trim twice yearly
- Replace dead / dying stock each winter
- Remove guards / stakes at end of year 5

The indicative 5-year maintenance and establishment schedules, included in a later section of this document, should be followed as a minimum standard for establishment of soft landscape areas.

Shrub Planting - Residential Gardens

The shrub species for the residential gardens have been chosen to reinforce the character areas. They also provide some year-round interest and colour at a suitable scale. Each area includes some evergreen species and some flowering species, although there is more of an emphasis on flowering species in Halsnead Fox's Bank to create the English cottage garden character.

	Halsnead West (Woodland)	North Halsnead (Urban Fringe)	Halsnead Fox's Bank (Village Green)	Planting Densities		
				2L	3L	5L
Ornamental Species				2L	3L	5L
4 <i>Berberis thunbergii</i> 'Red Chief'			✓	3	3	2
5 <i>Brachyglottis</i> Sunshine			✓	4	3	2
6 <i>Buxus sempervirens</i>	✓			5	4	3
7 <i>Carex</i> Evergold		✓		6	4	3
8 <i>Ceanothus thyrsiflorus repens</i>		✓	✓	4	3	2
9 <i>Choisya</i> 'Aztec Pearl'			✓	4	3	2
10 <i>Choisya</i> 'Sundance'			✓	4	3	2
11 <i>Choisya ternata</i>	✓			4	3	2
12 <i>Cistus</i> × <i>pulverulentus</i> 'Sunset'			✓	4	3	2
13 <i>Cornus alba</i>	✓			3	2	1
14 <i>Cornus canadensis</i>	✓			5	4	2
15 <i>Cornus kousa</i>		✓		-	-	1
16 <i>Cornus mas variegata</i>	✓			2	2	1
17 <i>Cotinus coggygria</i>			✓	2	2	1
18 <i>Cotinus</i> Grace		✓		3	3	2
19 <i>Euonymus</i> Emerald Gaiety		✓	✓	4	3	2
20 <i>Euonymus</i> Emerald n Gold			✓	4	3	2
21 <i>Fatsia japonica</i>		✓		-	-	1
22 <i>Fuchsia</i> Mrs Popple		✓	✓	3	3	2
23 <i>Hakonechloa Macra</i> 'Aureola'			✓	5	4	3
24 <i>Hebe</i> Green Globe		✓	✓	8	7	5
25 <i>Hebe</i> Red Edge		✓	✓	5	4	3

	Halsnead West (Woodland)	North Halsnead (Urban Fringe)	Halsnead Fox's Bank (Village Green)	Planting Densities		
				2L	3L	5L
Native Species				2L	3L	5L
1 <i>Corylus avellana</i>	✓			BR	-	-
2 <i>Rosa pimpinellifolia</i>	✓			BR	-	-
3 <i>Ilex aquifolium</i>	✓			3	3	2

	Halsnead West (Woodland)	North Halsnead (Urban Fringe)	Halsnead Fox's Bank (Village Green)	Planting Densities		
				2L	3L	5L
Ornamental Species				2L	3L	5L
26 <i>Hydrangea</i> Annabelle			✓	3	3	2
27 <i>Hydrangea</i> Bluebird			✓	3	3	2
28 <i>Hydrangea paniculata</i> Phantom	✓			3	3	2
29 <i>Lavandula angustifolia</i>			✓	4	3	2
30 <i>Lonicera Pileata</i>	✓			4	3	2
31 <i>Miscanthus</i> Species		✓		4	3	2
32 <i>Philadelphus</i> Belle Etoile	✓			3	3	2
33 <i>Phlomis fruticosa</i>			✓	4	3	2
34 <i>Phormium tenax</i> 'Variegatum'		✓	✓	3	2	1
35 <i>Pieris</i> Flaming Silver		✓		4	3	2
36 <i>Pieris japonica</i> Mountain Fire			✓	4	3	2
37 <i>Potentilla</i> Elizabeth			✓	4	3	2
38 <i>Potentilla</i> Red Ace			✓	4	3	2
39 <i>Prunus</i> Otto Luyken		✓		4	3	2
40 <i>Rosa</i> Carefree Beauty			✓	4	3	2
41 <i>Rosa</i> 'The Fairy'			✓	4	3	2
42 <i>Viburnum davidii</i>		✓		3	3	2
43 <i>Viburnum tinus</i> 'Eves Price'			✓	3	3	2
44 <i>Viburnum</i> × <i>bodnantense</i> 'Dawn'	✓			3	3	2
45 <i>Weigela</i> 'Florida Variegata'			✓	3	3	2

Shrub Planting - Residential Gardens

Halsnead West
(Woodland)



North Halsnead
(Urban fringe)



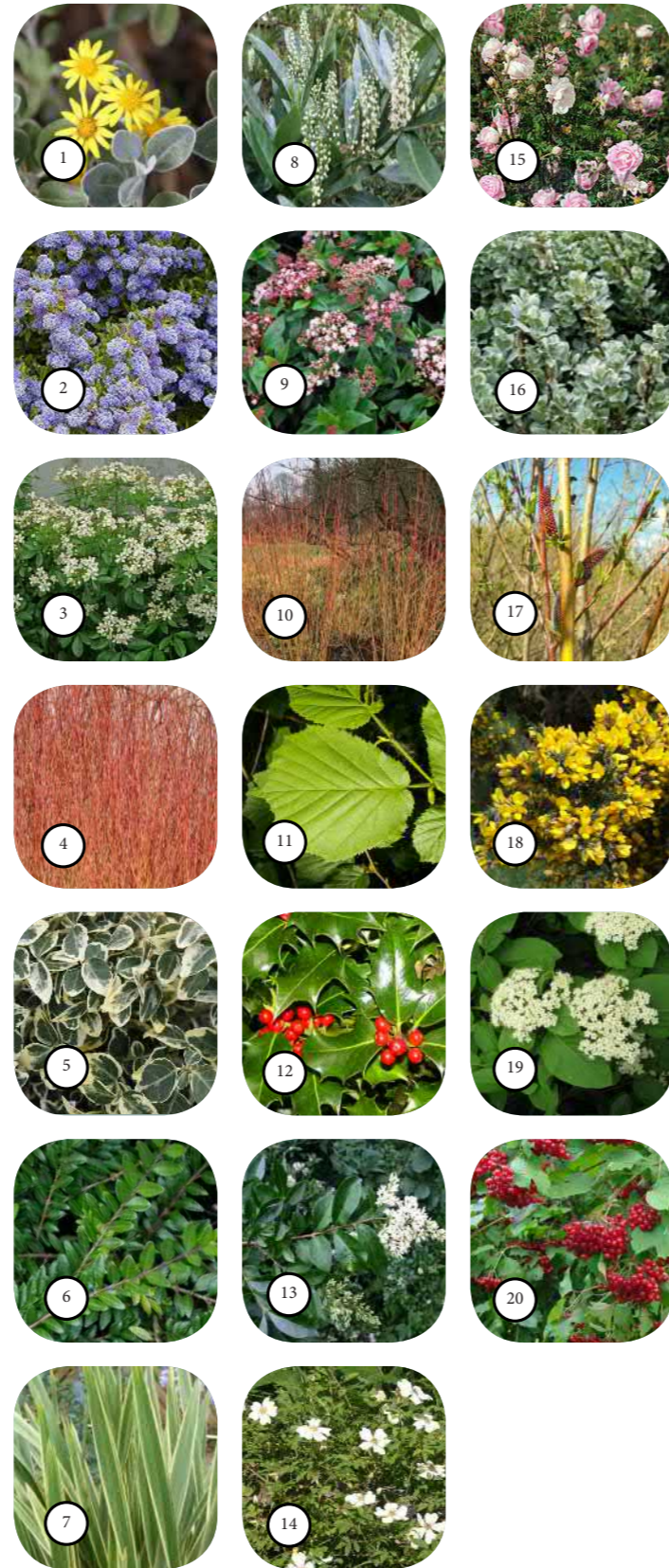
Halsnead Fox's Bank
(Village green)



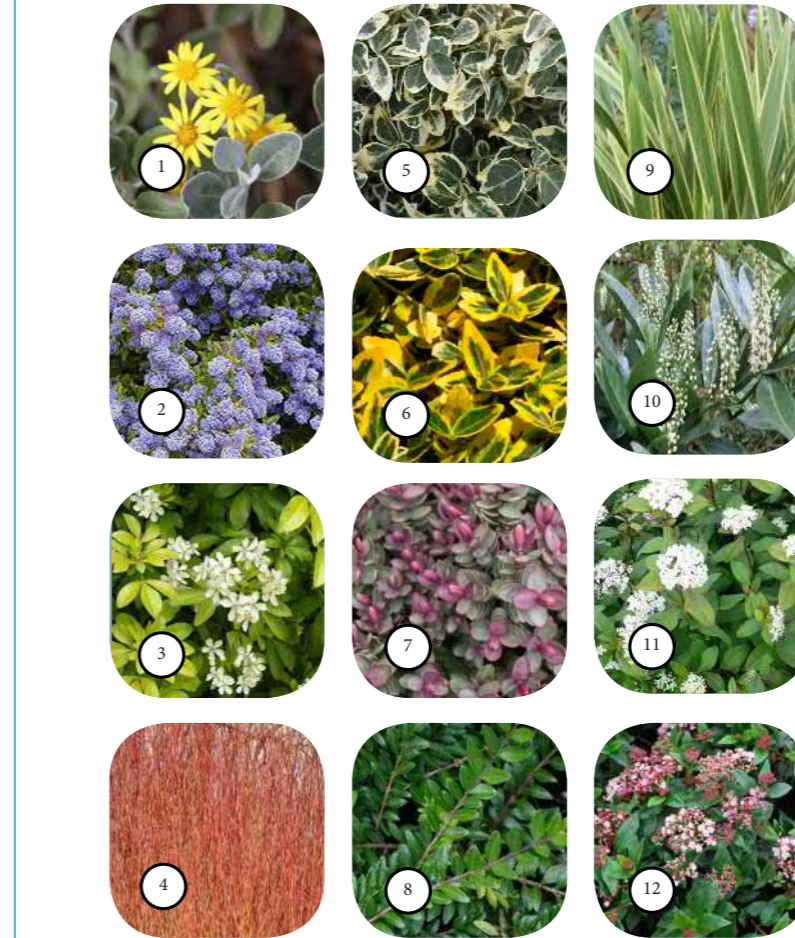
Shrub Planting - Commercial

Shrub species in the commercial areas will be predominately native to strengthen wildlife corridors and provide screening. Some ornamental species have been included to define entrances and provide focal points if required.

	Species	South Halsnead	Planting Densities		
			2L	3L	5L
1	<i>Brachyglottis Sunshine</i>	✓	4	3	2
2	<i>Ceanothus 'Blue Mound'</i>	✓	3	3	2
3	<i>Choisya ternata</i>	✓	4	3	2
4	<i>Cornus alba</i>	✓	3	2	1
5	<i>Euonymus Emerald Gaiety</i>	✓	4	3	2
6	<i>Lonicera Pileata</i>	✓	4	3	2
7	<i>Phormium tenax 'Variegatum'</i>	✓	3	2	1
8	<i>Prunus Otto Luyken</i>	✓	4	3	2
9	<i>Viburnum tinus Eves Price</i>	✓	3	3	2
10	<i>Cornus sanguinea</i>	✓	BR	-	-
11	<i>Corylus avellana</i>	✓	BR	-	-
12	<i>Ilex aquifolium</i>	✓	3	3	2
13	<i>Ligustrum vulgare</i>	✓	BR	-	-
14	<i>Rosa arvensis</i>	✓	BR	-	-
15	<i>Rosa pimpinellifolia</i>	✓	BR	-	-
16	<i>Salix lanata</i>	✓	BR	-	-
17	<i>Salix purpurea</i>	✓	BR	-	-
18	<i>Ulex europaeus</i>	✓	BR	-	-
19	<i>Viburnum lantana</i>	✓	BR	-	-
20	<i>Viburnum opulus</i>	✓	BR	-	-



Shrub Planting - Public Realm



	Species	Halsnead Fox's Bank (Village Green)	Planting Densities 2L	Planting Densities 3L	Planting Densities 5L
1	<i>Brachyglottis Sunshine</i>	✓	4	3	2
2	<i>Ceanothus 'Blue Mound'</i>	✓	3	3	2
3	<i>Choisya Sundance</i>	✓	4	3	2
4	<i>Cornus alba</i>	✓	3	2	1
5	<i>Euonymus Emerald Gaiety</i>	✓	4	3	2
6	<i>Euonymus Emerald n Gold</i>	✓	4	3	2
7	<i>Hebe Red Edge</i>	✓	5	4	3
8	<i>Lonicera Pileata</i>	✓	4	3	2
9	<i>Phormium tenax 'Variegatum'</i>	✓	3	2	1
10	<i>Prunus Otto Luyken</i>	✓	4	3	2
11	<i>Viburnum tinus</i>	✓	3	3	2
12	<i>Viburnum tinus Eves Price</i>	✓	3	3	2

Shrub Planting

Shrub Planting Specification

- Bare root stock to be planted at a density suitable for the location e.g. 3/m² in residential areas, and 1m² for informal native screen planting
- Plants to meet the criteria as set in the National Plant specification
- Topsoil to be cultivated to a minimum depth of 400mm with 150mm of base material to be loosened to aid drainage
- Compost to be incorporated into the backfill
- Slow release fertiliser to be applied to ensure establishment
- Any imported topsoil to be to BS standard and have testing certificates and source details
- Planting pit for any shrub to be 150mm wider and 100mm deeper than plant container
- Plants watered well following planting
- Any climbers to have support removed and be fixed to trellis / growing support
- 75mm bark mulch to be spread following planting
- Formative pruning following planting if recommended for the species

Maintenance

Shrub & Herbaceous Planting

- Water as necessary to ensure good establishment
- Keep planting area weed free and check for any signs of invasive species
- Keep planting area litter free
- Top up mulch to 100mm depth annually
- Apply an approved fertiliser twice annually
- Carry out formative pruning to ensure good establishment and plant shape. Timing & method of pruning will be in line with good horticultural practices and suitable to each species, encouraging plant to flower /fruit. Pruning visits therefore will need to be carried out throughout the year
- Replace vandalised / dead plants throughout the year at a time suitable for planting

The indicative 5-year maintenance and establishment schedules, included in a later section of this document, should be followed as a minimum standard for establishment of soft landscape areas.

Shrub Planting - Public Open Space

Shrub species in areas of public open space within the Halsnead West area will be predominately native to reinforce the woodland character, this includes shade tolerant groundcover and bulb planting. Some ornamental species have been included in the palette, which will be used for focal points such as gateways and junctions if required.

Planting in North Halsnead should be picked from a minimal palette and focus on structure planting for ease of maintenance. There is a high percentage of evergreens plants with textured foliage which will define and frame amenity spaces.

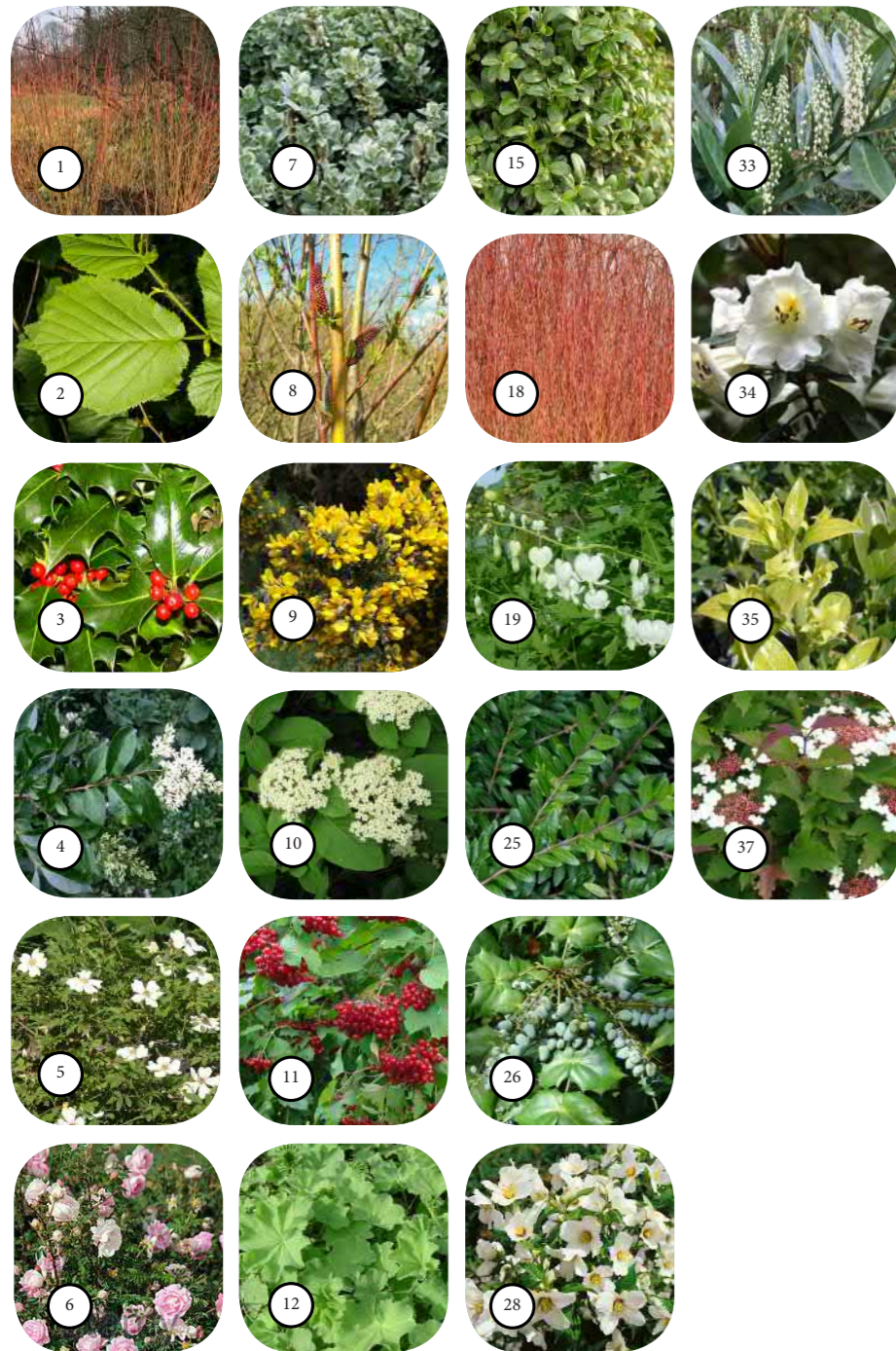
Shrub planting in Halsnead Fox's Bank will consist of a more ornamental mix of plants to provide colour and interest and be planted minimally with trees to retain the visual focus on the open landscape and visibility. Bulb planting and colourful wildflower seeds will also provide interest at a low level.

	Halsnead West (Woodland)	North Halsnead (Urban Fringe)	Halsnead Fox's Bank (Village Green)	Planting Densities		
Native Species				2L	3L	5L
1 <i>Cornus sanguinea</i>	✓	✓		BR	-	-
2 <i>Corylus avellana</i>	✓	✓		BR	-	-
3 <i>Ilex aquifolium</i>	✓			3	3	2
4 <i>Ligustrum vulgare</i>	✓			BR	-	-
5 <i>Rosa arvensis</i>	✓			BR	-	-
6 <i>Rosa pimpinellifolia</i>	✓	✓		BR	-	-
7 <i>Salix lanata</i>	✓			BR	-	-
8 <i>Salix purpurea</i>	✓			BR	-	-
9 <i>Ulex europaeus</i>	✓			BR	-	-
10 <i>Viburnum lantana</i>	✓			BR	-	-
11 <i>Viburnum opulus</i>	✓	✓		BR	-	-

	Halsnead West (Woodland)	North Halsnead (Urban Fringe)	Halsnead Fox's Bank (Village Green)	Planting Densities		
Ornamental Species				2L	3L	5L
12 <i>Alchemilla mollis</i>	✓		✓	4	3	3
13 <i>Berberis thunbergii 'Red Chief'</i>		✓		3	3	2
14 <i>Brachyglottis Sunshine</i>			✓	4	3	2
15 <i>Buxus sempervirens</i>	✓			5	4	3
16 <i>Ceanothus 'Blue Mound'</i>		✓	✓	3	3	2
17 <i>Choisya Sundance</i>		✓	✓	4	3	2
18 <i>Cornus alba</i>	✓	✓	✓	3	2	1
19 <i>Dicentra spectabilis Alba</i>	✓			4	4	3
20 <i>Euonymus 'Emerald Gaiety'</i>		✓	✓	4	3	2
21 <i>Euonymus 'Emerald n Gold'</i>			✓	4	3	2
22 <i>Fatsia japonica</i>		✓		-	-	1
23 <i>Fuchsia 'Mrs Popple'</i>			✓	3	3	2
24 <i>Hebe 'Red Edge'</i>		✓	✓	5	4	3
25 <i>Lonicera pileata</i>	✓	✓	✓	4	3	2
26 <i>Mahonia japonica</i>	✓			3	3	2
27 <i>Miscanthus Species</i>		✓		4	3	2
28 <i>Philadelphus 'Belle Etoile'</i>	✓			3	3	2
29 <i>Phormium tenax 'Variegatum'</i>			✓	3	2	1
30 <i>Phormium 'Yellow Wave'</i>		✓	✓	3	3	2
31 <i>Photinia 'Red Robin'</i>		✓		3	3	2
32 <i>Pieris 'Flaming Silver'</i>			✓	4	3	2
33 <i>Prunus 'Otto Luyken'</i>	✓	✓	✓	4	3	2
34 <i>Rhododendron lindleyi</i>	✓			3	2	1
35 <i>Sarcococca confusa</i>	✓			5	4	3
36 <i>Viburnum davidii</i>		✓		3	3	2
37 <i>Viburnum sargentii</i>	✓			4	3	2
38 <i>Viburnum tinus</i>			✓	3	3	2
39 <i>Viburnum tinus 'Eves Price'</i>			✓	3	3	2

Shrub Planting - Public Open Space

Halsnead West (Woodland)



North Halsnead (Urban fringe)



Halsnead Fox's Bank (Village green)



Bulb planting: Public open space

Shade tolerant native bulb species have been chosen to provide interest at ground level within the natural areas of Halsnead West to reinforce the woodland aesthetic and increase the biodiversity of these spaces. For North Halsnead and Halsnead Fox's Bank a mix of spring flowering bulbs will provide colour and interest at a low level. This will be used with structure shrub planting within North Halsnead and underneath tree canopies and in amenity green space to ensure the open feel and visibility of the area is retained.

		Halsnead West (Woodland)	North Halsnead (Urban Fringe)	Halsnead Fox's Bank (Village Green)	
	Public Open Space				min no/m²
1	<i>Allium ursinum</i>	✓			75
2	<i>Anemone nemorosa</i>	✓			100
3	<i>Crocus chrysanthus 'Cream Beauty'</i>		✓	✓	100
4	<i>Crocus sieberi 'Tricolor'</i>		✓	✓	100
5	<i>Crocus tommasinianus Ruby Giant</i>		✓	✓	100
6	<i>Crocus vernus 'Pickwick'</i>		✓	✓	100
7	<i>Galanthus nivalis</i>	✓	✓	✓	130
8	<i>Hyacinthoides non-scripta</i>	✓			80
9	<i>Narcissus "Ice Follies"</i>		✓	✓	50
10	<i>Narcissus "Kind Alfred"</i>		✓	✓	50
11	<i>Narcissus "Tete-a-tete"</i>		✓	✓	80
12	<i>Narcissus Geranium</i>		✓	✓	50
13	<i>Narcissus pseudonarcissus</i>	✓	✓	✓	80
14	<i>Tulip Attila</i>		✓	✓	45
15	<i>Tulip White Flag</i>		✓	✓	45
16	<i>Tulip Flaming Flag</i>		✓	✓	45



Wildflower and Amenity Planting

Amenity seed mixes have been specified to ensure visual consistency across the development and to ensure high quality grass mixes are used for each of the specific areas, which will be same for each character area. With regard to wildflower planting, three difference mixes have been recommended to define each of the character areas. All mixes include native species that will attract pollinator species and provide a colour and interest for a long flowering period. Wildflower mixes are also recommended for specific locations such as shady areas which can be used to edge native hedgerows or within woodland areas.

	Halsnead West (Woodland)	North Halsnead (Urban Fringe)	Halsnead Fox's Bank (Village Green)	
Public Open Space				min sowing rate
Wildflower seed mixes				
① <i>Wildflower & Pond Edge Wildflower Mix: British Flora BFS5</i>	✓	✓	✓	5g/m ²
② <i>Hedgerow and Shade Tolerant Wildflower Mix: British Flora BFS6</i>	✓	✓	✓	5g/m ²
③ <i>Butterfly & Wildflower Mix: Phoenix PF14</i>	✓			2g/m ²
④ <i>Treasure Trove Wildflower Mix: Phoenix UM13</i>		✓		2g/m ²
⑤ <i>Bumblebee Wildflower mix: Phoenix PF13</i>			✓	2g/m ²
Amenity Grass Seed				
⑥ <i>Conservation Grassland and Golf Roughs Seed Mix: Phoenix LowMain 10</i>	✓	✓	✓	30g/m ²
⑦ <i>Road verge and embankment Germinal Seeds A18</i>	✓	✓	✓	35g/m ²
⑧ <i>Supreme Shade: Germinal Seeds A6</i>	✓	✓	✓	40g/m ²

⑨ **Quality Lawn: Germinal Seeds A2 - to be used in all Residential Gardens.**

Wildflower and Amenity Planting

Hedge borders and shaded areas

A mixture of grasses and perennial wildflowers that are tolerant of shade and semi-shade conditions. Suitable for sowing alongside hedges, under trees and within established woodland.

20% of mixture as wildflowers:

- 10% Agrimony
- 10% Black Knapweed
- 2% Bush Vetch
- 8% Field Scabious
- 8% Foxglove
- 0.5% Greater Mullein
- 4% Hairy St John's Wort
- 4% Hedge Bedstraw
- 4% Hedge Garlic
- 5% Hedge Woundwort
- 1% Hedgerow Crane's-bill
- 0% Lords-and-Ladies
- 3% Nettle Leaved Bellflower
- 8% Red Campion
- 8% Selfheal
- 3% Upright Hedge Parsley
- 7% Wood Avens
- 6% Wood Sage
- 2% Wood Vetch
- 6% Yarrow

80% of mixture as low maintenance grasses:

- 25% Chewings Fescue
- 10% Common Bent
- 30% Crested Dogstail
- 15% Slender CRF
- 5% Rough Meadow Grass
- 2% Sweet Vernal Grass
- 4% Tufted Hair Grass
- 1% Wood False Brome
- 8% Wood Meadow Grass

Treasure trove wildflower mix

This mixture is bursting with rich coloured flowers that are robust and designed for a long flowering time, allowing for a longer and larger impact on the area. It is a great mix for normal fertile soil, with a colour combination that can change over time as the year goes on.

This mix is ideal for wildlife with its early pollination which lasts through to the late autumn, supplying a consistent food source through the year, but also responds well to a mid season cut allowing for the species to bloom again during the year from August through to the late autumn.

Recommended Sowing Time: Autumn - All Year

Mixture Contains:

- Papaver orientale (red)
- Sanguisorba minor
- Malva moschata
- Origanum vulgare
- Knautia arvensis
- Centaurea nigra
- Achillea millefolium
- Linaria vulgaris
- Daucus carota
- Geranium pratense
- Digitalis purpurea
- Onobrychis vicifolia
- Salvia harmonoides
- Galium mollugo

Butterfly and wildflower mix

This wild flower mixture contains species which are known to be important to attract butterflies, hoverflies and other insects. A good choice of seed mixture for wildlife.

100% Wildflowers

- | | | | |
|----|----------------------|----|-----------------|
| 5% | Bird's-foot trefoil | 6% | Red Campion |
| 4% | Black Medick | 5% | Red Clover |
| 6% | Chicory | 5% | Red Valerian |
| 4% | Common Knapweed | 8% | Selfheal |
| 2% | Dandelion | 4% | Small Scabious |
| 2% | Devil's-bit Scabious | 6% | Viper's Bugloss |
| 7% | Field Scabious | 5% | White Campion |
| 4% | Greater knapweed | 3% | Wild Marjoram |
| 3% | Hemp Agrimony | 3% | Wild Mignonette |
| 6% | Kidney Vetch | 4% | Wild Teasel |
| 4% | Oxeye daisy | 4% | Yellow Melilot |

Bumblebee wildflower mix

This wildflower seeds mix is designed specifically to encourage bumblebees, by providing the pollinating wildflowers as a food source for them.

100% Wildflowers

- | | | | |
|----|---------------------|-----|-----------------|
| 6% | Bird's-foot Trefoil | 12% | Lady's Bedstraw |
| 4% | Black Medick | 10% | Red Clover |
| 8% | Common Knapweed | 3% | Red Dead Nettle |
| 9% | Corn Marigold | 4% | Tufted Vetch |
| 7% | Cornflower | 7% | Viper's Bugloss |
| 4% | Field Poppy | 10% | White Clover |
| 6% | Foxglove | 4% | Wild Clary |
| 6% | Greater Knapweed | | |

Wildflower and Amenity Planting

Road Verge and Embankments Mix

Provides the perfect mixture for motor and road verges, suits the D.O.T specification. A proven specification for applications such as highway verges, embankments and roundabouts. The mixture establishes quickly on a range of soils types and provides rapid ground cover to prevent gully erosion and loss of soil onto road surfaces.

The high percentage of creeping grasses means the sward will stabilise gradients in the long term, however it is recommended that on steep gradients, some form of geotextile to stabilise the bank whilst the sward establishes is necessary to incorporate. The inclusion of white clover provides the sward with an ability to fix nitrogen and sustain itself.

Benefits:

- Rapid establishment
- Suitable for use on gradients
- Performs on variable soil types
- Low maintenance
- Suitable for all D.O.T specifications
- Added Zurich Creeping perennial ryegrass ensures ability to regenerate from wear

Mixture Breakdown

2.5% Aberace (Small) W Clover
 15% Cadix Perennial Ryegrass
 40% Corail Strong Creeping Red Fescue
 12.5% Evora Smooth Stalked Meadow Grass
 10% Highland Browntop Bentgrass
 10% Joanna Chewings Fescue
 10% Zurich Perennial Ryegrass

Supreme Shade

A specialist mixture to tolerate shade conditions created by trees or the built environment. This mixture benefits from the inclusion of the shade tolerant Supreme Poa Supina that also tolerates wear.

Use a pre-seed fertiliser prior to sowing to provide good nutrient levels and relieve compaction to aid establishment.

The inclusion of Supreme Poa Supina enables this mix to thrive in shaded areas where other shade tolerant mixtures have failed, most often these are areas where the cause of shade is walls or buildings.

Benefits:

- Exclusive varieties
- Tolerates shade
- Tolerates drought
- Maintains good ground cover

Mixture Breakdown

7.5% Aberroyal Browntop Bentgrass
 50% Corail Strong Creeping Red Fescue
 25% Joanna Chewings Fescue
 2.5% Supreme Poa Supina
 15% Tetris Smooth-Stalked Meadowgrass

Amenity grass mix

This mixture is suitable for areas that require the minimal amount of maintenance, and may be cut as little as twice a year and will develop into a low maintenance grass sward. This low maintenance mix is excellent for conservation grassland areas and a suitable companion mix for areas adjacent to wildflower meadows where aggressive and competitive grass species are not desired.

This mix is also suitable for areas that are difficult to mow, such as steep slopes or areas that are designed to be left to grow. This mixture is ideal for wildlife areas or any patches of ground which are left to grow.

Sowing Rate on bare ground: 30g/m²
 Overseeding Rate on thin areas: 20g/m²

20% Slender Creeping Red Fescue
 40% Creeping Red Fescue
 7% Smooth-Stalked Meadow Grass
 10% Hard Fescue
 20% Chewings Fescue
 3% Brown Top Bent

Supplier Information

Unless otherwise approved.

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Web: www.germinalamenity.com

Wildflower and Amenity Grass Specification

Wildflower areas

- Prior to any wildflower seeding – soil testing to be carried out to ensure the fertility levels are suitable
- Any imported soil should be low fertile sandy loam or graded subsoil
- Area to be treated with herbicide prior to cultivation and sowing to reduce the amount of weeds in the seed bed
- Soil depth should be a minimum of 150mm
- Consider the use of deep ploughing to reduce the need to import material. Topsoil strip could provide suitable soil for ornamental planting whilst retaining poorer soils for areas of wildflower seeding
- Seed mixes to be suitable for location as detailed in table
- Sowing rates should be suitable to mix and as shown in table on page 69.

Amenity Grass

- Area to be treated with herbicide prior to establishing grass
- A minimum of 200mm depth of cultivated topsoil should be spread before turfing or seeding take place. Top soil should ensure a level of fertility appropriate for a healthy grass sward development.
- Pre-seeding fertiliser applied – suitable for turfing or seeding (area dependant)

Maintenance

Amenity Grass

- Keep area litter free
- Mow regularly to maintain a height of 38mm or less. If grass growth is more than 50mm remove all arisings
- Spot treat any pernicious weeds hand weed if in close vicinity to water
- Apply fertiliser annually
- For areas of grass with flowering bulbs do not mow for 6 weeks after the flowering period

Wildflower areas

- In year 1 carry out a high cut in June only
- Subsequent years cut or strim twice yearly in spring and in autumn once all species have finished flowering. Remove arisings immediately at the spring cut and after the autumn cut leave arisings on site for four days and then remove to allow seed to drop
- Spot treat any invasive species or pernicious weeds
- Where meadow area is adjacent to footpath, a 1m wide verge to be maintained as amenity grass and mowed more regularly
- Ensure encroaching grass / flowers species onto adjacent footpaths is cut back one annually

The indicative 5-year maintenance and establishment schedules, included in the next section of this document, should be followed as a minimum standard for establishment of soft landscape areas.

Soft Landscaping Maintenance Schedule

The indicative maintenance schedule has been provided below to guide developers when formulating their 5 Year establishment and maintenance period.

MAINTENANCE SCHEDULE YEAR 1 - 3

OPERATION	J	F	M	A	M	J	J	A	S	O	N	D
Tree planting in hard and soft landscaping												
Water as required to ensure good establishment	X	X	X	X	X	X	X	X	X	X	X	X
Basic formative pruning	X											
Check underground guying or stakes and tree ties and adjust / replace if necessary	X				X				X			
Hand weed / apply herbicide				X		X				X		
Apply fertiliser					X							
Top up mulch											X	
Carry out replacement of dead or dying stock											X	
For trees in hardstanding - check tree grille / guard surrounding surface for damage & repair if necessary											X	
Check Drainage of tree pit is working effectively											X	
Native woodland and woodland edge planting												
Water as required to ensure good establishment			X	X	X	X	X	X	X	X		
Monitor for non-native invasive species				X		X				X		
Monitor and weed around new planting and check and adjust stakes, ties and guards	X				X				X			
Carry out replacement planting of dead or dying stock											X	
Apply compost or fertiliser to new planting				X								
Carry out formative pruning to encourage health growth	X											

OPERATION	J	F	M	A	M	J	J	A	S	O	N	D
Shrub and herbaceous planting												
Weed control					X	X	X	X	X			
Water as required to ensure good establishment				X	X	X	X	X	X			
Apply fertiliser				X				X				
Species specific pruning	X			X			X			X		
Top up mulch											X	
Replacement planting of dead or dying stock											X	
Hedgerows												
Formative pruning to new hedgerow	X											
Monitor and weed around new planting and check and adjust stakes, ties and guards	X				X				X			
Check post and wire fencing and repair as necessary	X											
Apply compost or fertiliser to new planting				X				X				
Replacement planting of dead or dying stock											X	
Amenity grass												
Water area of turf as required to ensure good establishment				X	X	X	X	X	X	X	X	
Mow every two weeks during spring / summer to height of 38mm				X	X	X	X	X	X	X	X	
Litter pick throughout the year and prior to any grass cutting operations	X	X	X	X	X	X	X	X	X	X	X	X
Spot treat pernicious weeds					X			X				
Apply fertiliser					X					X		

YEAR 1 - 3 (Continued)

OPERATION	J	F	M	A	M	J	J	A	S	O	N	D
Wildflower areas												
Spring cut to 40mm and remove arisings from site				X								
Cut to 40mm and leave cuttings on site for four days allowing any seed to drop. remove cuttings off site following this period										X		
Spot treat weeds with an approved herbicide					X			X				
Mow 1m verge adjacent to footpaths / line with recommendations for amenity grass				X	X	X	X	X	X	X		
SUDS basin												
Remove litter	X	X	X	X	X	X	X	X	X	X	X	X
Mow / strim 1/3 of grass land to a height of 150mm around pond annually and remove arisings											X	
Spot treat pernicious weeds (remove by hand if close to waterbody)					X			X				
Wetlands / ponds												
Monitor ponds to check pollution and water levels	X		X		X		X		X		X	
Remove litter	X	X	X	X	X	X	X	X	X	X	X	X
Remove encroaching / woody vegetation	X											
Thin out aquatic vegetation and remove arisings											X	
Mow / strim 1/3 of grass land to a height of 150mm around pond annually and remove arisings											X	
Remove dominant species												X

MAINTENANCE SCHEDULE
YEAR 4 & 5

OPERATION	J	F	M	A	M	J	J	A	S	O	N	D
Tree planting in hard and soft landscaping												
Check underground guying or stakes and tree ties and adjust / replace if necessary	X				X				X			
Hand weed / apply herbicide				X			X			X		
Apply fertiliser					X							
Top up mulch												X
Carry out replacement of dead or dying stock												X
For trees in hardstanding - check tree grille / guard surrounding surface for damage & repair if necessary												X
Check Drainage of tree pit is working effectively												X
Remove any epicormic growth	X											
Remove any deadwood and prune to ensure health growth of tree	X											
Remove stakes / ties by end of year 5	X											
Native woodland and woodland edge planting												
Monitor existing woodland and scrub for species diversity and if required carry out plant replacements with different species to ensure good species mix in each group of planting				X				X				X
Carry out thinning works on a rotational basis	X	X										
Monitor for non-native invasive species				X			X			X		
Monitor and weed around new planting and check and adjust stakes, ties and guards					X				X			
Carry out replacement planting of dead or dying stock												X
Remove any deadwood and prune to ensure health growth of tree	X											
Carry out coppicing of any understory such as corulus / cornus	X											
Remove guards , stakes and ties in year 5												X

YEAR 4 & 5 (Continued)

OPERATION	J	F	M	A	M	J	J	A	S	O	N	D
Shrub and herbaceous planting												
Weed control					X	X	X	X	X			
Water as required to ensure good establishment				X	X	X	X	X	X			
Apply fertiliser				X				X				
Species specific pruning	X			X		X				X		
Top up mulch											X	
Replacement planting of dead or dying stock											X	
Hedgerows												
Formal hedges in residential areas - trim to a height of 1 m	X								X			
Native hedgerows - trim on a three-year rotation	X											
Monitor and weed around new planting, check and adjust stakes, ties and guards	X				X				X			
Check post and wire fencing and repair as necessary	X											
Remove guards, stakes and ties in 5 years											X	
Carry out planting or coppicing to fill any gaps in hedgerow											X	
Replace dead or dying plant stock / gap up hedges as required											X	
Amenity grass												
Mow every two weeks during spring / summer to height of 38mm				X	X	X	X	X	X	X		
Litter pick throughout the year and prior to any grass cutting operations	X	X	X	X	X	X	X	X	X	X	X	X
Spot treat pernicious weeds					X			X				
Apply fertiliser					X					X		
Treat any damaged areas of grass / overseeding bare patched					X							

OPERATION	J	F	M	A	M	J	J	A	S	O	N	D
Amenity grass												
Mow every two weeks during spring / summer to height of 38mm				X	X	X	X	X	X			
Litter pick throughout the year and prior to any grass cutting operations	X	X	X	X	X	X	X	X	X	X	X	X
Spot treat pernicious weeds					X			X				
Apply fertiliser					X					X		
Treat any damaged areas of grass / overseeding bare patched					X							
Wildflower areas												
Spring cut to 40mm and remove arisings from site				X								
Cut to 40mm and leave cuttings on site for four days allowing any seed to drop, remove cuttings off site following this period									X			
Spot treat weeds with an approved herbicide							X					
Mow 1m verge adjacent to footpaths / line with recommendations for amenity grass				X	X	X	X	X	X			
Monitor species diversification and carry out plug planting if required to maintain a good variety of species					X							
SUDS basin												
Remove litter	X	X	X	X	X	X	X	X	X	X	X	X
Mow / strim 1/3 of grass land to a height of 150 mm around pond annually and remove arisings									X			
Spot treat pernicious weeds (remove by hand if close to waterbody)							X					
Wetlands / ponds												
Monitor ponds to check pollution and water levels	X		X			X		X		X		X
Remove litter	X	X	X	X	X	X	X	X	X	X	X	X
Remove encroaching / woody vegetation	X											
Thin out aquatic vegetation and remove arisings										X		
Mow / strim 1/3 of grass land to a height of 150 mm around pond annually and remove arisings									X			
Remove dominant species												X
De-slit ponds / wetlands if required in year 5										X		

