

PUBLIC REALM

GUIDELINES

Be First Design Guidance:
Hearts and Minds, Bricks and Mortar



**Barking &
Dagenham**



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INTRODUCTION

These guidelines set out Be First's design ambition for the landscape and public realm across all new Be First developments. They were created in collaboration with London Borough of Barking and Dagenham (LBBD), Reside and My Place to ensure a high quality public realm that is robust, functional and can be efficiently managed and maintained. They form part of a suite of guidance documents aimed at those who develop, design, construct and manage projects on behalf of Be First.

There are many factors that affect and have an influence on the planning, design and management of the public realm. There is now a greater emphasis on:

- Housing growth and increasing urban density
- Economic development and inward investment
- Modal shift from vehicles to pedestrians
- Public health, inclusion and well-being
- Air quality and environmental pollution
- Climate change and environmental resilience
- Habitat fragmentation and biodiversity crisis

PURPOSE

The purpose of the guidelines is to ensure that from the outset, the design of the landscape and public realm is a priority and remains so throughout the design and construction process so that it can then be maintained and managed to a high standard for years to come.

It is paramount that a realistic budget for the external works is established and agreed at the outset of the design process and protected as the project proceeds through design development, tender and construction. The budget must also include an appropriate sum to ensure that management and maintenance is also carried out to the highest possible standard.

In this way the landscape and public realm will be effective, cherished and nurtured for future generations.

STRUCTURE

The guide is divided into three sections.

The first section explains the importance of high quality design and how Be First's design vision and aims are fundamental to their regeneration programme, addressing climate change, reducing carbon emissions and delivering new high quality neighbourhoods and communities.

The second section sets out a series of design objectives that should be used to inform and guide design quality, its composition and characteristics.

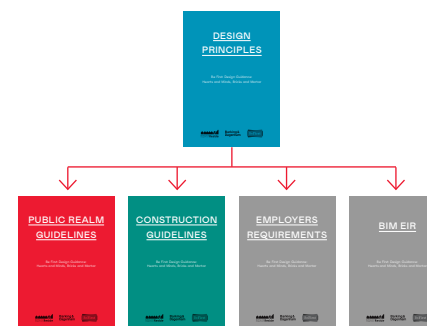
The third section sets out the design detail and provides guidance on how the various features are assembled and integrated to ensure a well constructed and co-ordinated public realm.

COMPLIANCE

Be First's schemes should be designed to meet these standards. It is a requirement that all stakeholders concerned in the planning, design, delivery and management of Be First's developments clearly demonstrate that these guidelines are being followed and adopted. Where it is not possible to meet all the guidelines it will be incumbent on the design and construction teams to illustrate alternative approaches that still support Be First's design vision and aims.

Be First will use this guide in assessing the quality and appropriateness of the design proposals brought forward for approval and construction. Similarly, it will form part of the criteria against which projects will be reviewed by the London Borough of Barking and Dagenham Quality Review Panel.

These guidelines are not a substitute for statutory planning guidance and should be read in conjunction with the National Planning Policy Framework (NPPF), The National Design Guide (2019) and the relevant GLA London Plan and LBBD Local Plan policies and supplementary guidance. It is recommended that reference to further advisory documents is made and these are listed at the end of the document.



1.0

DESIGN VISION

Our ambition is to deliver new residential neighbourhoods and communities that have a distinctive and attractive landscape setting and integrated public realm of the highest quality. We believe investing time and expertise in the design process is needed to establish a clear design vision at the outset that ensures value as well as quality.

A landscape architect should be appointed at an early design stage to prepare a comprehensive landscape vision and public realm strategy in conjunction with the architect, engineer, ecologist, arboriculturalist and other members of the design team.

We believe that collaborative team working is essential in delivering Be First's vision and expect the landscape and public realm design to have equal weight in the development process.

The landscape and public realm must be of a high quality and should respond to the factors described in the introduction that have an increasing influence on the design of the public realm. These include improving public health and promoting more active lifestyles, adapting to a changing climate and enhancing biodiversity.

The design vision for landscape and public realm design should achieve the following six aims that describe the purpose and outcomes for the public realm:

- Attractive and desirable
- Responds to context
- Increases social and economic value
- Promotes health and well-being
- Resilient to a changing climate
- Supports biodiversity and reduces carbon

1.1 ATTRACTIVE AND DESIRABLE

Be First believes it is important to invest in high quality design, construction and management of the public realm. This investment should deliver exemplar open spaces that delight, flourish, give pride to those who visit, live, work and play in them.

The landscape and public realm design should be considered at the outset

of the project in tandem with the architecture and site planning so as to make a positive contribution and deliver a community asset that is attractive, desirable and is well-used.



1.2 RESPONDS TO CONTEXT

Be First's developments must be place specific, express local identity and character and take account of relevant character studies.

We expect the design approach to demonstrate an understanding of the context, appreciate what is there and develop a design response that is appropriate to that context. This should take account of factors that

influence character including an analysis of townscape, street patterns, heritage features, topography, views and materials.

We want design teams to work collaboratively with communities to identify attributes of the place, which are important to local people.



1.3 INCREASES SOCIAL AND ECONOMIC VALUE

The design of the public realm should be shown to enhance both social and economic value. There must be collaboration with our local residents and stakeholders throughout the design and delivery process to understand their requirements and to promote ownership and self-management.

Inclusive places should be designed for all to use that support and encourage

equality, diversity, safety and social cohesion.

The public realm should be designed with flexibility to accommodate public events and activities that deliver social benefit, engender a sense of civic pride and encourage conversation and social interaction.



1.4 PROMOTES HEALTH AND WELL-BEING

The landscape and public realm should promote a healthy and sustainable lifestyle providing plenty of opportunities to keep physically active and socialise with neighbours in a clean green environment.

It should support family life and individual well-being within a safe

environment that both respects privacy, encourages sociability and enriches the lives of residents.

Play features and playable landscapes that promote outdoor activity for all ages and abilities should be provided.



1.5 RESILIENT TO A CHANGING CLIMATE

The principles of sustainability will be promoted through all stages of the design process.

The ease of future management will be an essential component of any design proposal. We expect design proposals will specify good quality materials with low environmental impact that are well put

together and can be maintained to a high standard.

The selection of low water demand plant species and integration of sustainable surface water management systems must form an integral part of the proposals.



1.6 SUPPORTS BIODIVERSITY AND REDUCES CARBON

Design proposals must achieve an increase in the green infrastructure in the borough, improve ecological connectivity and deliver a net gain in biodiversity. This will be a fundamental part of Be First's approach to addressing the impacts of climate change.

LBBB has declared a climate emergency and aim to be carbon neutral by 2030.

As part of Be First's commitment to make our developments more environmentally sustainable we are reducing energy use and carbon emissions, reducing waste and encouraging biodiversity.

Proposals must support this ambition.



2.0

DESIGN OBJECTIVES

Be First's overarching Design objectives are to fulfill the design vision and create safe and engaging landscapes and public realm. This section sets out the ten key objectives to guide the development process to achieve this goal.

The quality and quantum of the public realm must be considered an integral part of the design at the outset of the project. It must inform the building layout and make a valuable contribution to the character of the development and quality of the local neighbourhood.

Streets, squares, communal gardens, play areas and terraces help connect people and support the activity and social interaction which is vital for a successful and well integrated community. These objectives help guide development and the future

maintenance in a well-designed, inclusive and sustainable way.

It is recommended that design development takes particular note of TfL guidance on street design including SuDS in London (2016), Healthy Streets for London (2017) and Streetscape Guidance (2019).

The Objectives

- Character and Identity
- Simple and Legible
- Human Comfort, Safety, Health and Welfare
- Movement, Access and Inclusivity
- Play and Informal Recreation
- Open Green Space
- Biodiversity and SuDS
- Services, Servicing and Parking
- Materials and Furniture
- Commitment to Management

2.1 CHARACTER AND IDENTITY

The design should have a distinct identity either in response to the existing character and culture of the place, or by developing a new character and sense of place, if appropriate.

Streets and spaces must make positive connections between new and existing communities that are clear and legible.

The Borough's character is rich and varied, influenced by the underlying geology, landscape and human activities. Industry and housing have shaped large parts of the Borough. Design should take account of the 10 character areas described in the Barking and Dagenham Townscape and Socioeconomic Characterisation Study (2017) and make note of the London's Natural Signatures (2011) study.

The alluvial flood plain across much of the southern half of the Borough between the River Roding in the west and the River Beam in the east, gave rise to extensive industrial and residential areas, which are now part of a regeneration programme in Barking and Barking Riverside. To the centre of the borough is the distinctive leafy garden character of the Beacontree Estate on the River Terrace Gravels. The London Clay, on the northern higher land informs the character of Chadwell Heath and Marks Gate. Broad open spaces of the green belt extend down the eastern side of the Borough.



River Roding



Maysbrook Park



Marks Gate

2.2 SIMPLE AND LEGIBLE

The public realm must be legible, have order and clarity of purpose with a hierarchy of streets and spaces.

The design of the external environment will consider scale, proportion and composition so that it is easy to understand and creates an attractive experience at ground level or when seen from surrounding homes.

The design must consider the resident's experience to their front door, whether directly from the street or via communal areas through consistent use of materials, defined thresholds and creating a sense of arrival.

Provide clear definition between public and private space in the street, within communal areas and on terraces through the careful selection of paving materials, planting and vertical enclosure.

The design of the public realm must respond to and complement the adjacent ground floor uses.

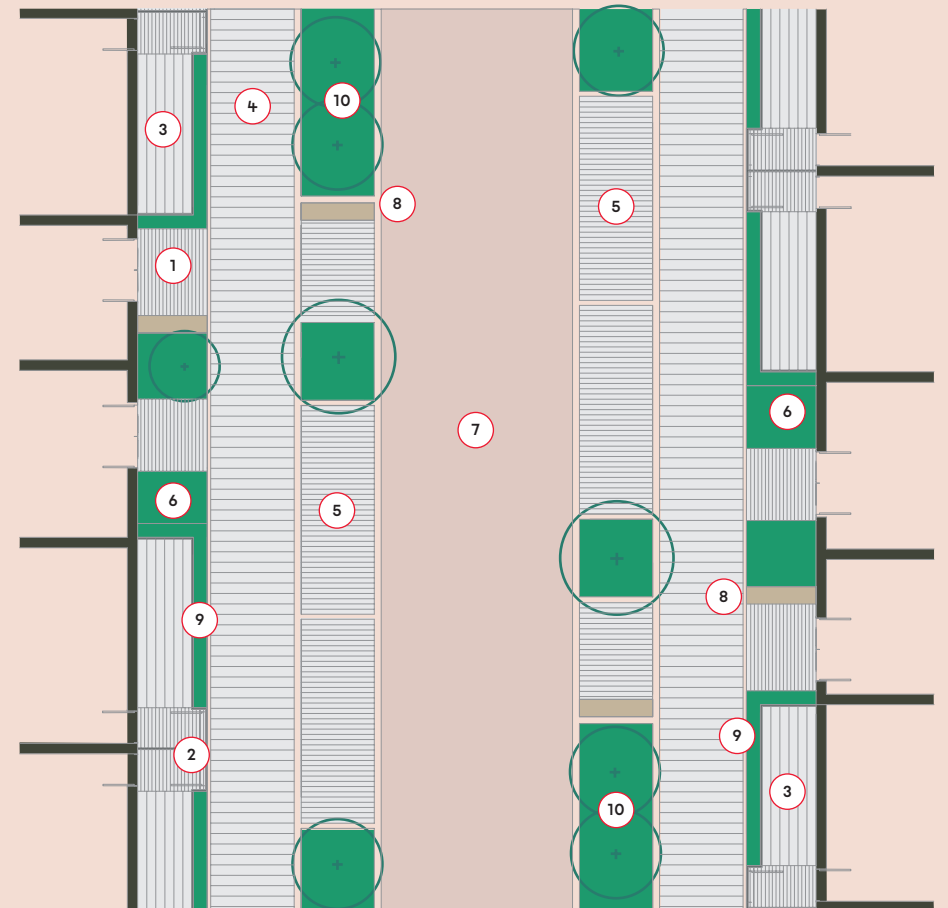
Consider the design of the street as a whole space from building edge to building edge. This should include the optimum location of the carriageway, which may not be central within the section.



A co-ordinated and legible street

- 1 Play on the way
- 2 Rain gardens & street trees
- 3 Places to socialise
- 4 Parking
- 5 Servicing & underground refuse storage
- 6 Planted defensible edge

- 1 Communal entrances & thresholds
- 2 Private entrance & thresholds
- 3 Private defensible space
- 4 Pedestrian Footway
- 5 Parking & servicing
- 6 Planting to blank walls
- 7 Carriageway
- 8 Seating close to building entrances
- 9 Hedge planting to private terraces
- 10 Planted rain gardens



2.3 HUMAN COMFORT, SAFETY, HEALTH AND WELFARE

Design should ensure the landscape and public realm is welcoming and takes full account of human comfort, safety, health and welfare. These are important design considerations for all our schemes and must be at the forefront of design development and decisions.

Sun, Shade & Wind

Design teams should ensure the building form and massing maximises opportunities for direct sunlight into all open space and onto the street.

Consider aspect and other environmental conditions in the layout and design of the street, eg walking and sitting on the sunnier side, parking and servicing to the shady side.

Consider the amount and location of tree planting to provide shade and to reduce the build-up of peak summer temperatures known as the heat island effect. Undertake summer and winter shade modelling of buildings, streets and spaces to inform the collaborative design process.

Use tree planting and other types of vegetation to reduce the impact of wind in the external environment. Make sure this is assessed at an early stage as the

design progresses to ensure adequate space is provided.

Air Quality

Tree and hedge planting must be considered where there is a need to improve air quality in accordance with GLA guidance, 'Using Green Infrastructure to Protect People from Air Pollution', April 2019.

Consider air quality when locating seats and play areas, particularly in relation to traffic.

Safety

Maximise overlooking of the street and open spaces to provide natural surveillance wherever possible.

Ensure all communal gardens and shared roof terraces are appropriately overlooked and easy to use.

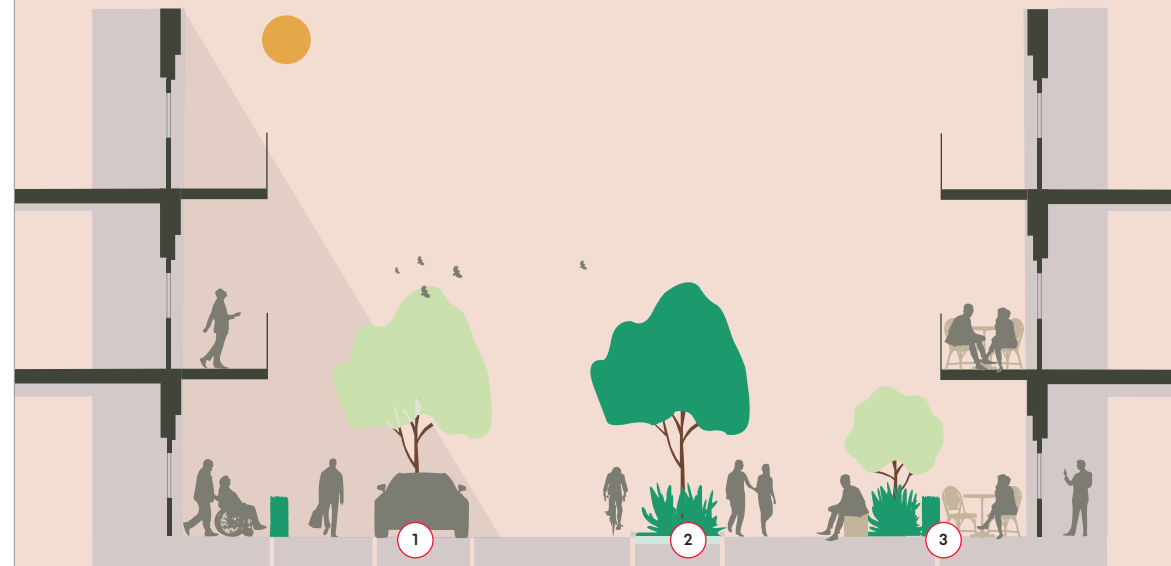
Residential entrances should be visible from the public realm, easy to find with a clear and safe route from the street. Entrance areas must be overlooked and provide a safe environment when entering and leaving the building.

The design should follow the site layout principles contained in Section 1 of Secured by Design Homes 2016.



Maximise street planting for comfort & well-being

- 1 Parking on shady side
- 2 Continuous rain gardens, tree planting & seating on sunny side
- 3 Defensible planting



Social activity on the sunny side of the street

2.4 MOVEMENT, ACCESS AND INCLUSIVITY

Walking and cycling should be encouraged by creating safe, attractive and connected streets and spaces. The cycling and walking experience should be considered along the whole length of the route to provide design consistency and attractive setting.

The presumption is that cyclists will use the residential street network, which will be designed to limit vehicle speeds.

Streets should be designed to encourage a variety of uses and be wide enough to allow for planting, seating, on-street parking and access.

Consider the play and social value of the street and where possible design the width to encourage incidental play on the way, chance meetings and places to dwell.

Pedestrian routes should connect into wider movement patterns and desire lines, with safe clear crossings to streets.

Ground level dwellings should have direct access into their communal amenity space in addition to their front doors, where possible.

Controlled access will be incorporated from the street into the communal gardens.

The landscape and public realm should be accessible to all and be designed in accordance with Part M Building Regulations, the 2010 Equality Act and current good practice.

Consider the experience at building entrances and provide adequate space to manoeuvre with buggies and wheelchairs, with places to pause, wait for friends and socialise. All entrances will have flush thresholds and designed to avoid ramps.

The distance of Blue Badge parking from building entrances must be kept to the minimum.

Steps should generally be avoided, if steps are required an alternative non-step route must be sensitively integrated into the design.

The physical limitations of pedestrians with mobility impairments should be considered when specifying kerb heights to ensure inclusive standards are met.



Planted defensible edge & defined entrance



- 1 Building entrance & flush threshold
- 2 Direct access to communal garden
- 3 Place to pause & socialise
- 4 Planted defensible edge
- 5 Opportunities to chat
- 6 Signature tree at entrances

2.5 PLAY AND INFORMAL RECREATION

Designs should incorporate a variety of formal and informal areas for play in the public realm. They offer an important facility for health and well-being of children and young people, encouraging social interaction and cohesion. Where developments have 10 children or more using the GLA Population Yield Calculator (update October 2019) then play space must be provided in accordance with the London Plan SPG, 'Shaping Neighbourhoods: Play and Informal Recreation, 2012'.

Where it is not possible to provide all the required play space within the development, clearly demonstrate safe walking routes to external play facilities and how they may be able to accommodate the additional play use. Identify enhancements to capacity and the facilities to meet the additional demand.

Locate play areas sensitively to minimise noise issues, ie close to family homes, further away from smaller flats and older person living and ensure that there is natural surveillance from surrounding homes.

Play should be fun and engaging for all children and appropriate to the space



Natural play features

available. Introduce a variety of formal and informal play opportunities for different age groups and abilities.

Facilities for different types of play and play experience should be considered,



Fixed play equipment for all ages



Play on the way for younger children



Young person & adult play

including play on the way in streets, informal natural play and more organised fixed equipment for play in larger areas. The provision of youth play and sports courts should also be considered.

Integrate seating in appropriate areas for parents and carers, that overlooks play and arranged to encourage conversation.

Tree planting, pergolas and shade structures should be integrated to provide shade where necessary.

Fencing is discouraged. The need to fence play areas should be carefully considered and if required sensitively integrate the enclosure with the overall design such that it is safe but not intrusive. Dog management must be reflected in the open space and management plans. Enclosed play areas must have two means of access and egress to improve personal safety and avoid potential bullying.

2.6 OPEN GREEN SPACE

All residents should have convenient access to good quality well designed open green space, where people can come together, enhance their well-being and have access to healthy exercise, meet other people and find companionship.

Design teams must carefully consider the routes residents will take to use green spaces and these should be made clear and fully accessible.

It is expected that the quantum of open space will exceed the minimum open space planning standards where possible. Standards of provision for both the quantity and accessibility of open spaces are set by current Local Plan and London Plan policies.

All green space must be planned, designed and managed as an integrated part of the residential development and aim to increase biodiversity, enhance and connect with the wider green infrastructure network.

A combination of communal gardens, green streets, courtyards and shared amenity areas should be provided. They must be usable, offering worthwhile recreation and social benefits for all residents. They should be provided at ground level wherever possible.

Communal spaces should be integral to the building design, durable and with a sense of delight to encourage and foster a sense of ownership by the residents.

Open space will be child and family friendly and promote a healthy and active lifestyle.

Food growing and opportunities for outdoor eating should be integrated within communal gardens, to encourage activation of the communal parts and promote a sense of neighbourliness.

The street must also be seen as an opportunity to provide green space. Ensure sufficient width is created in the street section to maximise the opportunity for planting and increase the greening of the street.

The inclusion of pocket parks as part of the public realm is encouraged to increase the opportunity for local communities to enjoy outdoor space and help build social cohesion.

They may provide food growing spaces, informal play and recreation facilities and new landscape that support Sustainable Drainage Systems (SuDs) and biodiversity improvements.



Communal Resident Garden



Green streets



Pocket Park

2.7 BIODIVERSITY AND SUDS

Design of the landscape and public realm must enhance the natural and local environment, minimising impacts and providing net gains for biodiversity.

Design teams should engage an ecologist early in the design process to determine the existing ecological value, establish strategies for improvement and meet the policies and targets set by the NPPF (2019), the London Plan and Barking and Dagenham's Biodiversity SPG (2012).

A coherent ecological network should be established for the benefit of wildlife, by linking green infrastructure, including the All London Green Grid and Blue Ribbon network to the wider public realm, utilising street trees, green roofs and other components of urban greening. Design teams must demonstrate positive urban greening in line with the Urban Greening Factor.

Planting proposals must include at least 50% native tree species and incorporate scrub and hedgerow species and establish a variety of ecological habitats.

The integration of flower-rich grasslands and wildflower meadows that incorporate native and ornamental species can

significantly enhance provision for insects and should be considered.

Design proposals should seek to increase the diversity and abundance of pollinators for example by taking account of opportunities to expand the B-Line for London initiative.

Other features such as stumperies, and insect hotels, which support invertebrates, should also be considered and integrated with the landscape proposals.



Derbyshire Street rain garden

The design of Sustainable Drainage Systems (SuDS) should take account of national guidance including CIRIA's SuDS Manual (2015) and TfL's SuDS in London (2016). Sustainable surface water strategies should include porous paving, infiltration strips, swales, rain gardens and geo-cells and form an integral part of a wider, connected blue/green network. Blue green roofs should be considered as part of a comprehensive SuDs strategy.

Below ground water storage and attenuation tanks must be designed and integrated into the landscape and allow adequate depths for tree planting above.



Swale & biodiversity features at Greenwich Peninsula



Playable rain garden at Bridget Joyce Square

2.8 SERVICES, SERVICING AND PARKING

Services

Below ground services, covers and access requirements can have a detrimental impact on the quality and area of usable external space.

The co-ordination of services and utilities must be carried out at all stages of the public realm design process to minimise impact and retain maximum space for planting and public use. Consideration should also be given to the future repair and replacement of services and utilities to minimise disruption and damage to the public realm.

Servicing

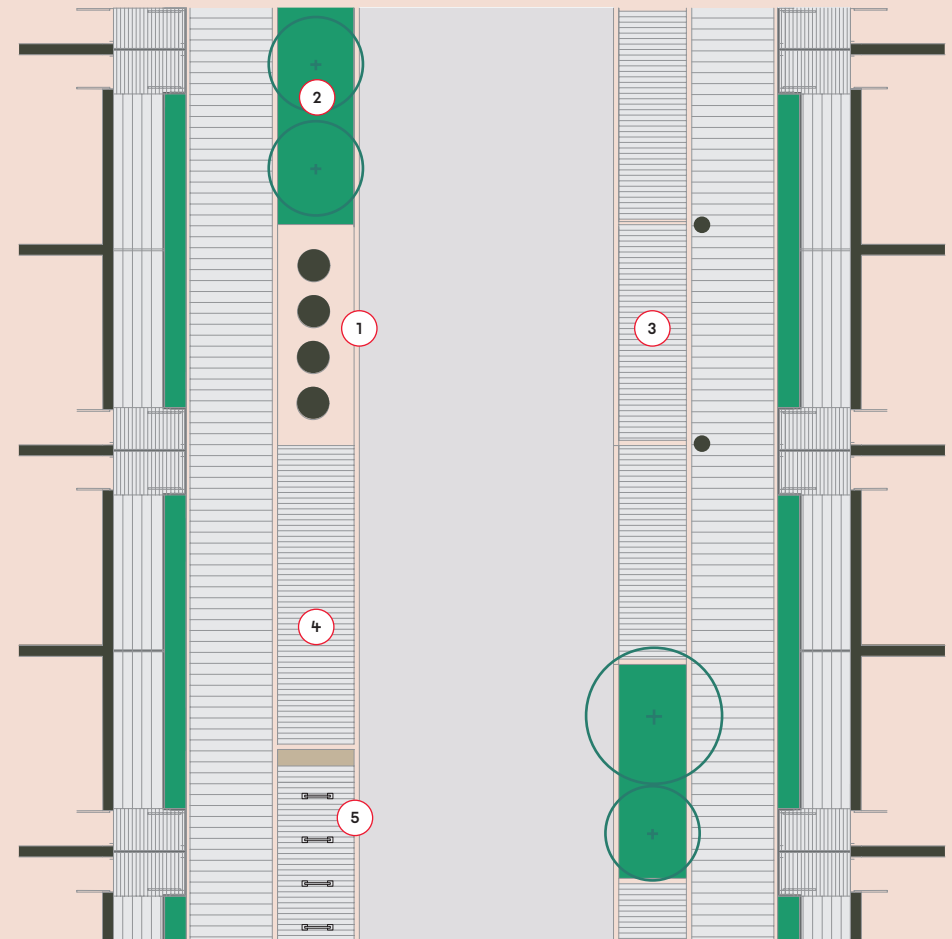
Consider the implications of refuse collection, emergency and maintenance vehicles and internet deliveries on the public realm. Their requirements should be integrated within the overall strategy.

Combined Blue badge parking with service bays will generally not be permitted.

Where occasional service access and vehicle turning is required, these should be designed as a flexible multi-use area that can be used by residents at other times.

Consider refuse & cleaning strategies at the early design stage to ensure adequate space is provided to avoid any reduction in planting and usable open space.

Refuse storage is not permitted in the defensible space within residential thresholds and adjacent to property entrances.



- 1 Proprietary refuse system, where used
- 2 Street planting zone
- 3 Parking bays with electric charging points
- 4 Service vehicle bay
- 5 Visitor cycle parking with seating as protection

2.8 SERVICE, SERVICING AND PARKING *Continued*

Parking

Parallel street parking is to be encouraged over parking within the development. It should be sensitively integrated into the street scene, with no more than three bays between rain gardens and tree planting.

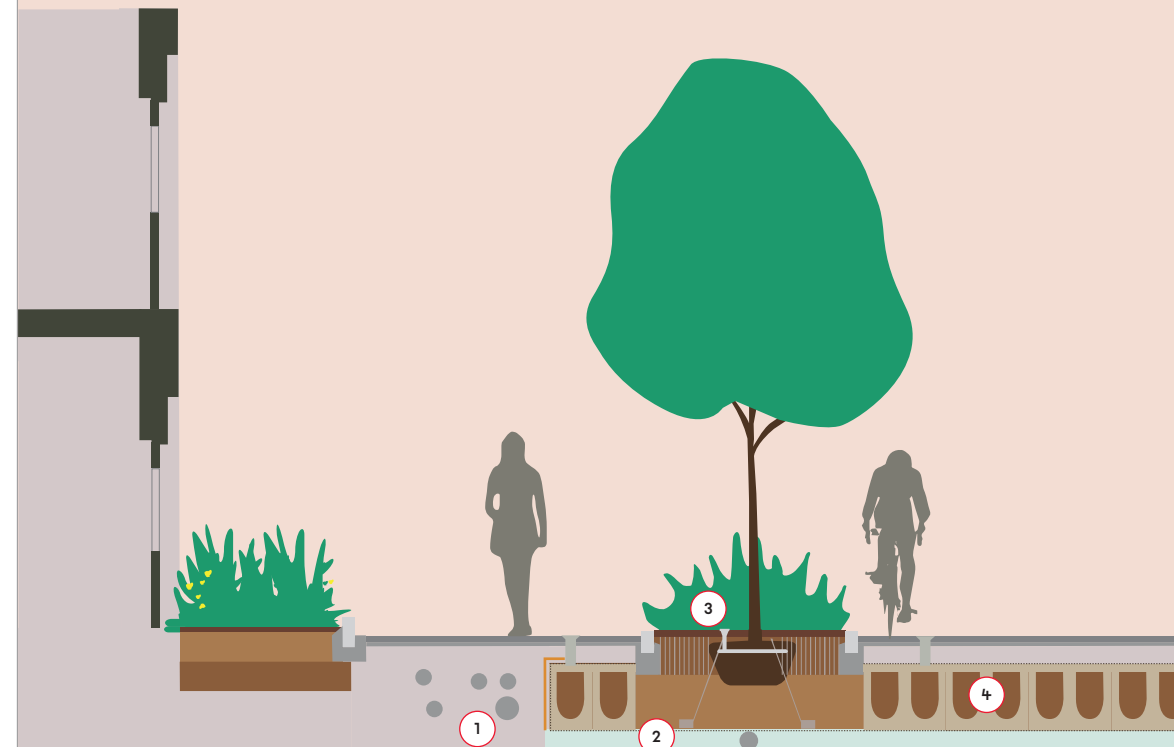
The parking bays should be co-ordinated with other street features, such as lighting and electric car charging points. Provision for electric car charging points should be made in accordance with TfL's Streetscape guidance.

Provide and integrate Blue Badge parking and other occupational health requirements as appropriate and in accordance with the current Approved Document M - Access to and use of Buildings (2016).

Cycling

Cycling will generally be within carriageways, which are conceived as cycle streets permitting two-way access to all vehicles, but at slow speeds, with cyclists having effective priority.

Resident's cycle storage will be incorporated within the building with visitor cycle parking integrated in the public realm, close to entrances with natural surveillance.



Co-ordination of services & tree planting

- 1 Co-ordinated service route beneath footway
- 2 Root barrier to tree pit
- 3 Tree pit within street edge planting with connecting drainage pipe
- 4 Tree cells beneath carriageway where required

2.9 MATERIALS AND FURNITURE

A restrained material palette should be developed that is robust, appropriate for use and easily maintained. In this way the public realm can be delivered in a phased way, whilst retaining a coherent and legible appearance.

The selection of materials should respond to the surrounding context, reinforce the spatial and movement, hierarchy and aid legibility. A consistent colour palette should be proposed.

Paving must be robust and economic, with key areas such as thresholds and gateways highlighted with a material change, such as granite or clay paving.

Carefully consider the function and use of paved areas to avoid large expanses of underused and redundant paved surfaces.

Consideration must be given to minimise the carbon footprint of selected materials and assess life-time costs at an early stage in the design process.

The design of bespoke elements should be avoided whilst materials and furniture should be selected, which are likely to be available for the foreseeable future or similar products can be procured from other sources.

How materials weather over time must be considered, in respect of changes to colour or surface degradation.



Greenwich Peninsula

2.10 COMMITMENT TO MANAGEMENT

The long term success of the landscape and public realm lies in its effective maintenance and management.

The management must be considered early in the design process and financial commitment included in appraisals of whole-life costs.

Future management responsibilities and liabilities must be defined and agreed at an early stage including areas that will be offered for adoption by the Council.

Prepare management plans as an integral part of the design process to ensure that the costs are recognised and included within the budget.

Management plans must include a schedule of maintenance activities, a programme of work and an identification of those responsible for undertaking the work. They must describe all maintenance and management activities for a minimum period of 10 years.

Greenwich Millennium Village



The careful consideration of design detail is an essential component of good quality public realm. It is important for Be First that design teams prioritise the external budget in areas where it will make the greatest qualitative difference to those using the external space.

High quality does not mean the most expensive materials, but rather that the composition and detail design are well executed to achieve the best result. It is expected, with a commitment to high quality design and attention to detail, good workmanship and regular future management, more can be done with less.

Simple material palettes are preferred, that are effective, easy to lay and repair and are inherently sustainable.

Details

- Surface Finishes
- Trees and Planting
- Ecology and Biodiversity
- Furniture
- Lighting and CCTV
- Parking
- Enclosure
- Play
- Raised Terrace Gardens
- Communal Gardens and Pocket Parks

3.0

DESIGN DETAIL

3.1 SURFACE FINISHES

Good footways are simple, durable and well maintained. The footway and highway design should be to adoptable standards even though they may not be adopted.

Crossovers and dropped kerbs should reflect movement patterns and be clearly visible. All tactile paving should be designed, set out and laid in accordance with TfL's Streetscape Guidance (2019).

Design teams should carefully consider paving sizes and setting out in relation to levels, thresholds, dropped kerbs and crossings.

Where surfaces are shared between vehicles, pedestrians and cyclists, follow best practice and in accordance with Manual for Streets (2007, or later) guidance.

Avoid speed humps in roads and consider other devices such as surface material changes, width restrictions and planting.

Design teams should consider the character and function of the street, minimise the use of road markings and limit the clutter of street signs.



Granite slab & cropped sett loading bay



Cropped granite sett & kerb

Selection

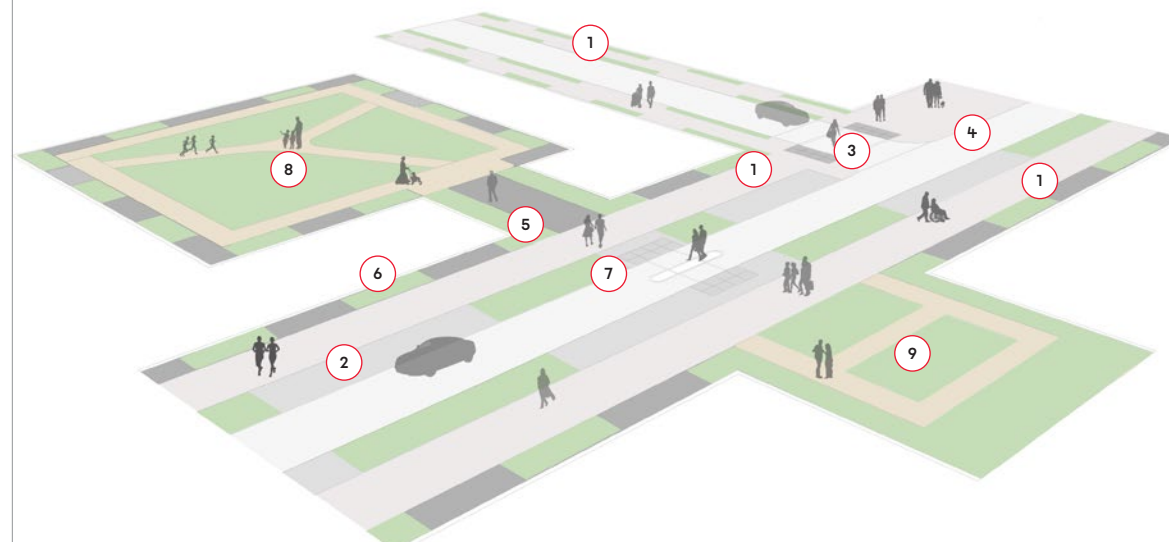
A restrained material palette should be developed that is robust, appropriate for use, high quality and easily maintained.

Careful consideration must be given to limit the carbon footprint of selected materials and determine life cycle costs. The Green Guide to Specification, BREEM 2008, should be used to assess the environmental impact of the materials and products.

All paving must comply with BS slip and skid resistance testing requirements and be easily jet washable (eg no loose gravel) and porous where possible.

Types of surface

- 1 Pcc concrete paving to footway
- 2 Porous pcc setts to parking bays with granite kerbs
- 3 Asphalt carriageway with granite kerbs & tactile paving at raised crossings.
- 4 Asphalt carriageway
- 5 Clay paviors, pcc setts or stone to thresholds & entrances
- 6 Pcc setts to private terraces
- 7 Pedestrian crossing with central refuge island
- 8 Resin bound gravel, clay paviors or in situ concrete to communal gardens & parks
- 9 Resin bound gravel or in situ concrete to pocket park



3.1 SURFACE FINISHES *Continued*

Streets

The Barking Code was developed in 2008 to inform Barking town centre's public realm. Be First will follow these principles and make applicable to developments in all town centre locations, comprising granite slabs, with granite sett service edge and granite kerbs.

Elsewhere the footway to the streets will be pcc paving slabs, with granite kerbs.

Thresholds and areas of defensible space will be clay paviors, textured silver grey concrete setts or natural stone. Any trims will match the paving. Upstands adjacent to the carriageway will comprise granite kerbs, elsewhere textured silver grey pcc kerb laid flat will be used.

Communal Gardens & Pocket Parks

Paths will be resin bound gravel, clay paving or textured concrete setts. Do not use resin bound gravel above services, where it may be dug up in the future. When proposing textured concrete setts, consider earth colours.

In certain places consideration could be given to in-situ concrete or asphalt with exposed decorative aggregate surface finish.

Play Areas

Play surfaces will be a combination of resin bound gravel, sand and play safety surface. In certain areas sand will be considered as an integral part of the play experience.

Concrete slabs



Granite slabs



Porous pc concrete setts



Granite setts



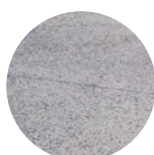
Clay paviors



Resin bound gravel



In-situ concrete



Asphalt with exposed decorative aggregate



Granite kerbs, trims & upstands



Paving Sizes

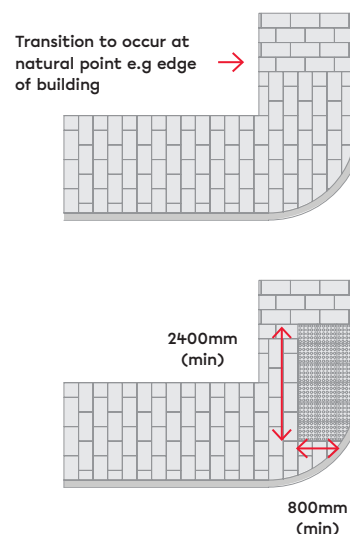
Footways will be 1800mm minimum width and generally comprise 900x600mm pcc slabs laid with joints one third overlapping. Consideration can be given to 600x600mm slabs.

Clay paviors will be a minimum of 1:4 plan ratio when laid on edge and stretcher bond. Concrete setts should be laid single size herringbone in parking bays. Elsewhere they can be laid using three co-ordinated sizes in off-set stretcher bond to manufacturer's recommendations.

Kerbs

Kerbs provide an important visual and physical delineation between footway and carriageway. Granite kerbs should be used to provide a clear and consistent aesthetic for all street types on all developments.

Kerbs should be square cut with radius, transition and corner units used in accordance with British Standards.



Setting out of paving at junctions

Kerb heights will be maximum 125mm and 60mm minimum where an upstand is required between footway and carriageway. At pedestrian crossings the kerb will be laid flush.

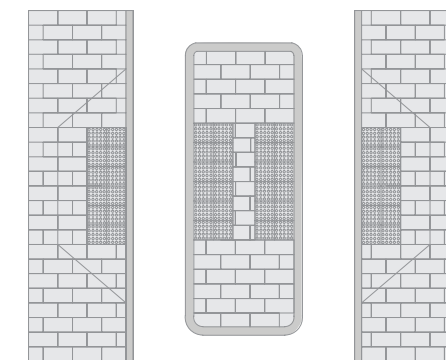
Laying & Setting Out

Surfaces should be laid such that they are comfortable underfoot, minimise trip hazards and are well drained.

Edge details, level changes and insertions within the paving must be resolved by the design team prior to the construction stage.

Cutting and setting out of paving in relation to street corners, service covers, dropped kerbs and crossings should be in accordance with TfL Streetscape Guidance 4th Edition 2019 Rev 1.

Service covers must be recessed to accommodate the adjacent surface material, co-ordinated with the direction of paving joints and set out in line with pattern avoiding a change in material within the length of the cover.



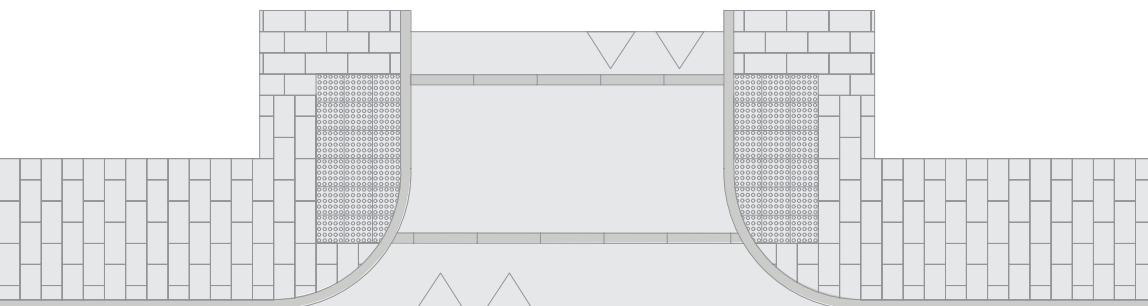
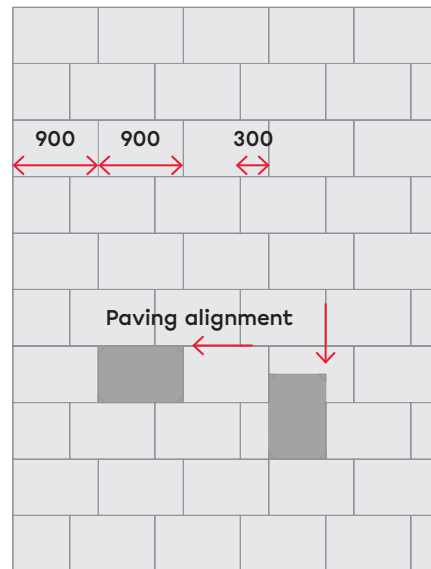
Uncontrolled pedestrian crossing with refuge island

3.1 SURFACE FINISHES *Continued*

Where porous paving is not installed, provide adequate cross falls, appropriate to paving finish to ensure good drainage and no ponding.

Paving at building thresholds to fall away from facades - any additional threshold drainage (to capture water from the face of buildings) to be a slot drain, integrated within the paving design.

Design and contractor teams must carefully consider the use of cuts to achieve changes in gradients, where paving slabs are used. The number of cuts should be kept to a minimum.



Side Road uncontrolled crossing with raised entry treatment

3.2 TREES AND PLANTING

The planting design and species selection should enhance amenity, increase the variety of habitats and deliver a net gain in biodiversity through the use of native species and pollinator plants.

Plant species must be selected to suit the location, growing conditions and low maintenance regime, provide seasonal colour and composition. Future maintenance must be considered in the planting design and in selecting trees, shrubs and other plant species.

Planting which makes a positive contribution to the sensory experience should also be considered to offer additional interest residents with visual and hearing impairments.

Planting should be at an appropriate specification and density for the chosen species and provide an initial impact and full appearance.

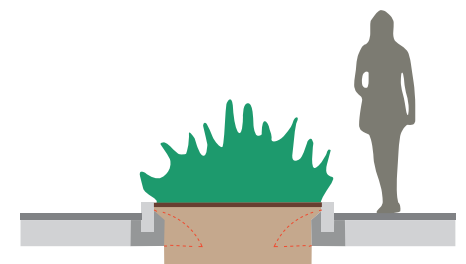
Maximise areas of planting wherever possible providing substantial and maintainable areas. Avoid small areas of planting in vulnerable areas that are not protected and can be easily damaged.

The minimum width for hedges is to be 500mm and incorporate steel post and wire fence to protect hedge planting during establishment.

The minimum width for planting should be 500mm where it is protected on one side by a wall or railing. Where planting is exposed on both sides, the minimum width should be 1500mm.

Where failures occur, plants must be replaced as soon as possible to maintain integrity of hedge or planting area and this must be carried out promptly during the establishment period. Consider temporary protection of planting to ensure successful establishment.

Provide adequate depth of growing medium, ensure haunching is limited so as not to restrict planting areas particularly in the street.



Haunching to kerbs to be kept to a minimum

3.2 TREES AND PLANTING *Continued*

Planting on raised terraces must be considered and detailed at an early stage to ensure the structure can accommodate the additional loading.

Provide opportunities for food growing and community gardening as a way of bringing residents together, encourage communal use and healthy activities. These should be considered in communal residential areas and pocket parks.

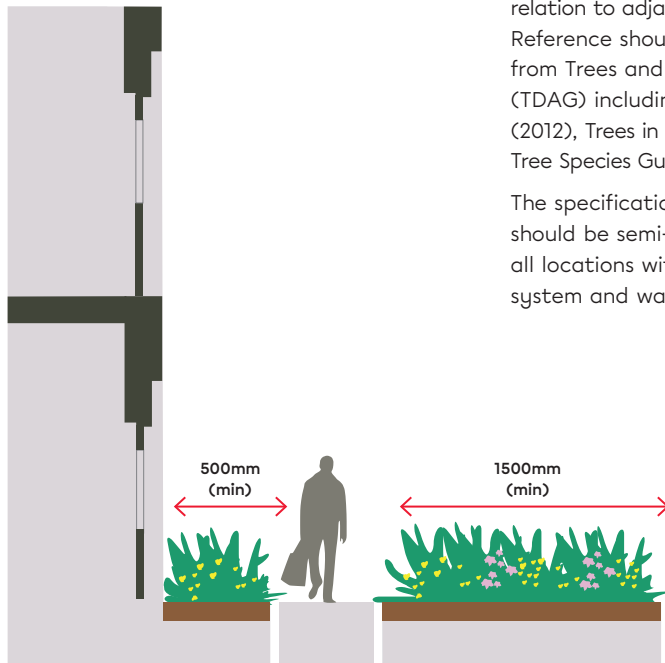
Existing trees within the development site should be assessed by a qualified arboriculturalist early in the design stage in accordance with the

recommendations included in British Standard (BS) 5837: Trees in relation to design, demolition and construction - Recommendations 2012.

The assessment should cover their condition, significance and landscape and environmental value. Categories of A, B and C trees shall be initially considered for retention. The BS5837 default tree protection barrier shall be used to protect all trees agreed for retention during the construction process.

Tree species will be carefully selected, specified and appropriate for their location and future growth, particularly in relation to adjacent buildings and traffic. Reference should be made to guidance from Trees and Design Action Group (TDAG) including Trees in Townscape (2012), Trees in Hardscape (2014) and the Tree Species Guide and Database.

The specification for minimum tree sizes should be semi-mature 20-25cm girth in all locations with underground guying system and watering systems.



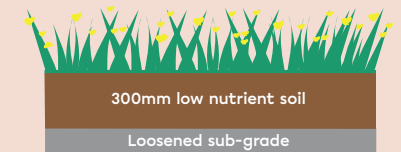
Planting against building edge

Exposed planting

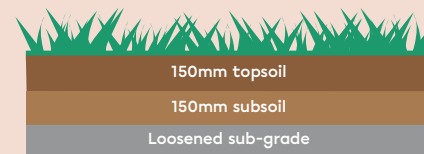
1 Shrub & perennial planting



2 Wildflower



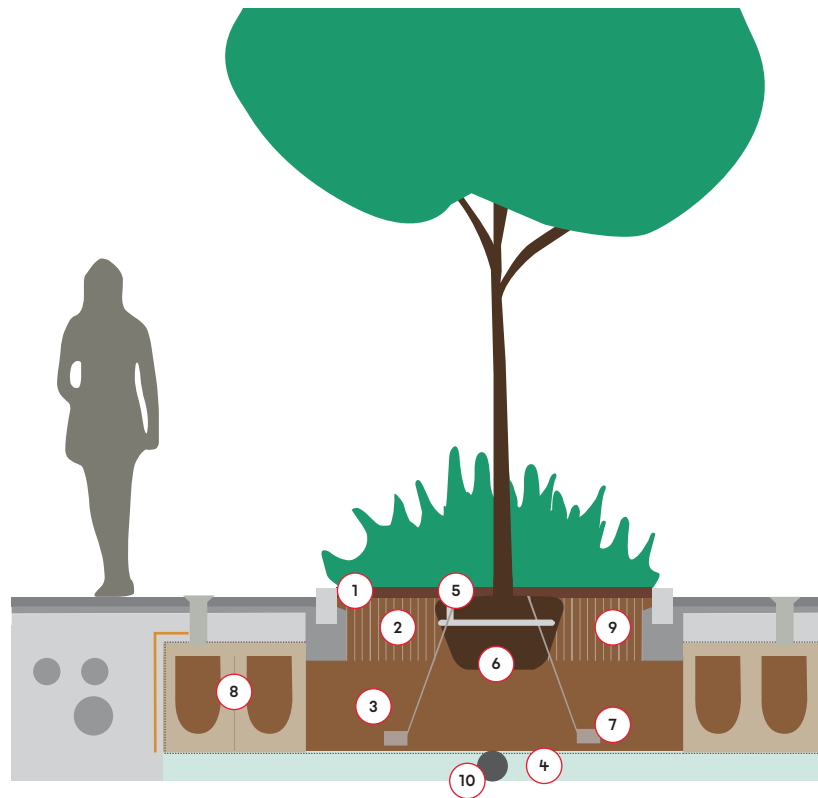
3 Turf



4 Hedge

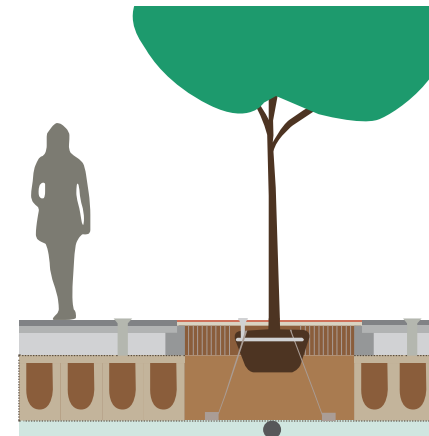


3.2 TREES AND PLANTING *Continued*

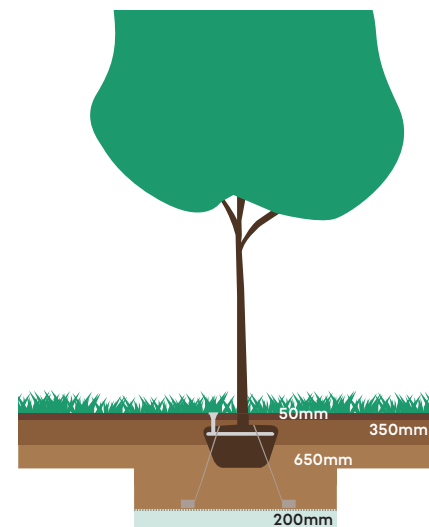


- 1 75mm Mulch
- 2 350mm Top soil
- 3 650mm Sub soil
- 4 Drainage layer
- 5 Aeration pipe
- 6 Rootball
- 7 Underground guying
- 8 Indicative tree cells backfilled with topsoil
- 9 Root reflector
- 10 Drainage collection

Trees in paving



Trees in planting



Consider tree pit drainage at an early stage to enable appropriate connections to wider drainage infrastructure.

Where the trees are in paved areas, the volume of growing medium should be based on the final canopy size and tree species. Where necessary install proprietary tree cells and construct tree trenches where lateral space is limited.

Where paving is required above the tree pit, install a recessed tray system that allows the adjacent paving to be adequately supported over tree pit. Include for removable sections for tree growth.

Soils

The healthy specification, structure and condition of soils are an essential factor for good plant growth. Design teams, contractors and landscape managers must safeguard and utilise on-site subsoil and topsoil resources where possible and ensure that the entire soil profile is in a condition to promote sufficient aeration, drainage and root growth. All soils should be formally tested and assessed for the risk of past contamination and particular attention should be given to areas identified for future food growing. Where imported soils are required, use a reputable supplier, establish the source of the soil and ensure imported soils are certified to be weed free and suitable for the intended use.

The protection, storage, movement and placement of soil must avoid compaction or cross-contamination and should be considered through all stages of design, construction and future maintenance. The guidance in DEFRA's 'Construction Code of Practice for the Sustainable Use of Soils on Construction Sites' (2009) should be adopted and specifications should follow BS 3882:2015 for topsoil and BS 8601:2013 for subsoil.

3.3 ECOLOGY AND BIODIVERSITY

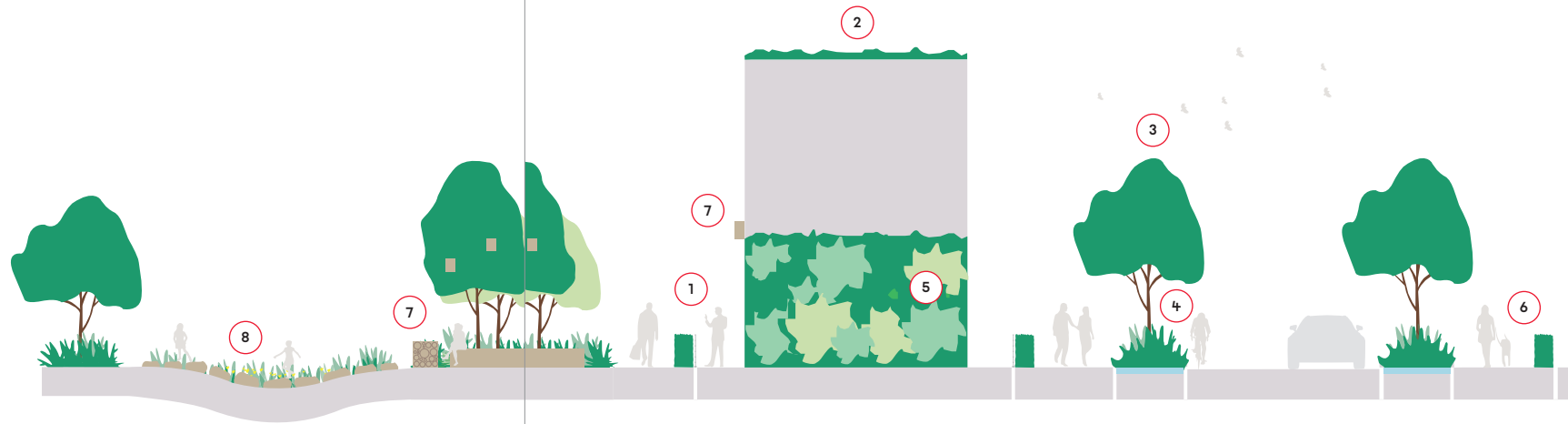
Planting areas provide a significant opportunity to improve a variety of habitats for wildlife and deliver a net gain for biodiversity. Reference should be made to TCPA's Biodiversity by Design (2004) and UK Green Building Council's Biodiversity and the Built Environment (2009) guidance.

Design proposals should incorporate a variety of native tree, scrub and hedgerow species and establish a mix of ecological habitats. A minimum of 50% of native tree species must be specified. Proposals should also integrate a variety of wildlife features including nest boxes, bug hotels and stumperies to support invertebrates.

Consider opportunities for flower-rich grasslands and wildflower meadows incorporating native and ornamental species. Ensure that a minimum of 30% of shrubs and herbaceous plants are pollinator species.

Consider green or brown biodiverse roofs to all buildings following the Mayor of London's technical report on Living Roofs and Walls (2008) and good practice guidance (2019).

Consider integration of water butts for community use as part of rain water harvesting strategy.



Interpretation of ecological enhancements Marks & Spencer Chester



Grey to Green SuDS Initiative in Sheffield

- 1 Communal garden with pollinator plants
- 2 Biodiverse roof integrated with PV panels
- 3 Native Trees
- 4 Rain garden planting
- 5 Green wall
- 6 Native hedgerow species
- 7 Bird and bug boxes
- 8 Swale planting

3.4 FURNITURE

Seating

The design and placement of street furniture must be considered as part of a coherent strategy rather than placed randomly.

Seating should be arranged to encourage conversation and located in sunny sheltered locations.

Seating should be provided both in the street and communal areas and positioned to encourage use, for instance on desire lines, intersections of pedestrian routes and within small pocket parks.

The Barking Code identified the Barking Bench within the Town Centre. It is based on a proprietary product and should be used where seating is proposed in town centre locations. It can be arranged in multiple configurations depending on location.

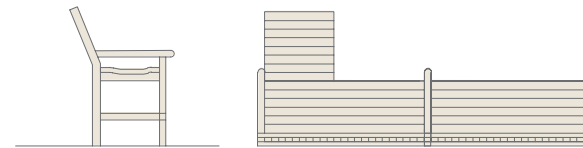
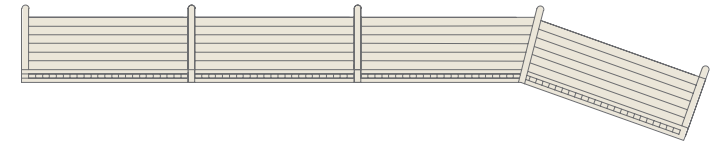
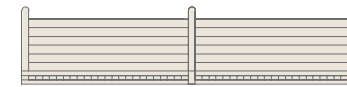
Elsewhere a robust timber seating range should be proposed from a furniture supplier such as Streetlife or equivalent. This will facilitate easy repair and replacement of parts should it be required. Seats and benches will have a proportion with backs and arm rests. Bespoke fabricated alternatives will not be approved as these may be difficult to repair or replace.

Where seating is integrated within raised planter edges, the design and specification should incorporate timber seats with backs and arm rests.

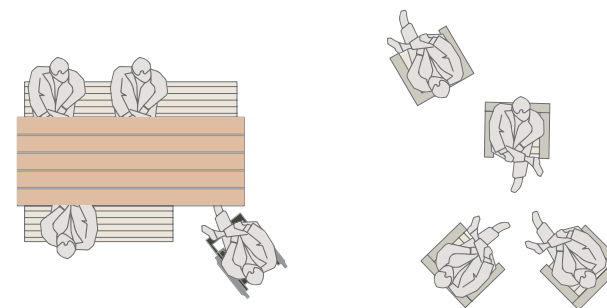
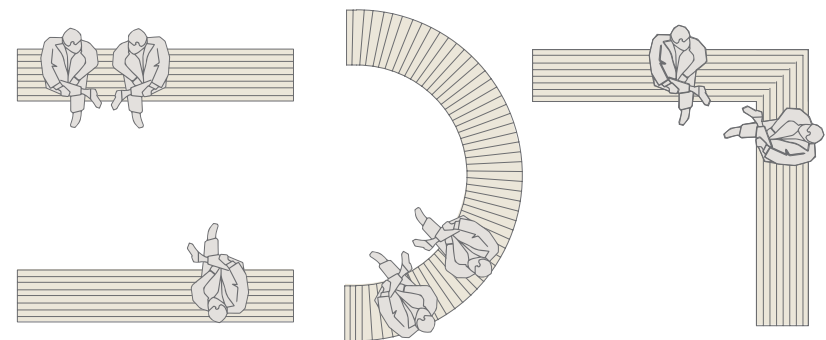
All timber must be certified from a sustainable timber source as defined by TRADA.



Seating with back & arm rests integrated with raised planters



The Barking Bench



Seating layouts designed to encourage social interaction

3.4 FURNITURE *Continued*

As part of the suite of furniture, raft seating for multiple social use should be considered.

Where appropriate place individual seats in groups and as single seats to provide choice.

Outdoor dining is to be encouraged and timber benches and tables should be integrated within communal areas, greens and pocket parks. The arrangement should allow easy access for disabled people and wheelchair users.

Where bespoke furniture is proposed in special areas, care must be taken in its design and placement to ensure it is robust, safe, fit for purpose, from a sustainable source and easily maintainable.

Isolated ground level planters should be avoided.



Stainless steel litter bin



Stainless steel Sheffield cycle stands



Broad deck seating to encourage multiple use

Bollards

Make every effort to design out the need for bollards. Where these are required install simple stainless steel bollards to supplier's recommendation.

Cycle Racks

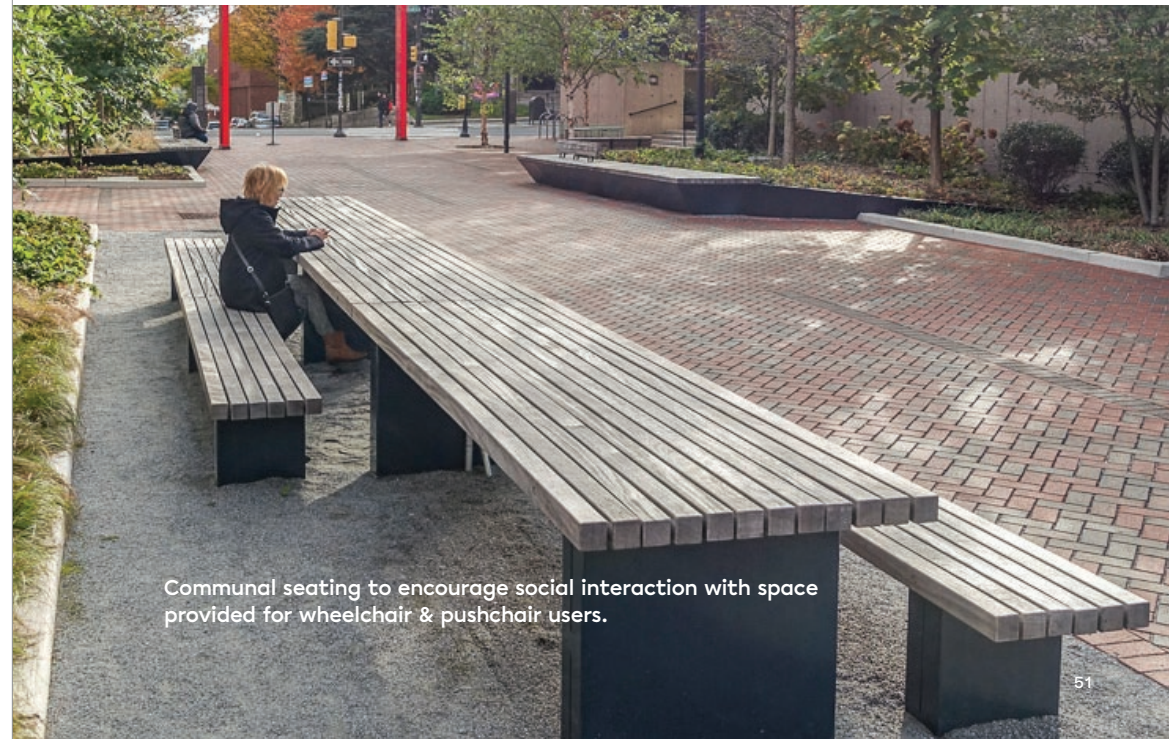
Cycle racks should be provided in the street and at appropriate locations at ground level within the public realm. The preferred design is the stainless steel Sheffield stand or equivalent.

Litter Bins

Careful consideration should be given to the provision and location of litter bins, in relation to their size, ease of maintenance and the frequency of collection. Where appropriate attach to lighting columns to reduce clutter.



Stainless steel bollards



Communal seating to encourage social interaction with space provided for wheelchair & pushchair users.

3.5 LIGHTING AND CCTV

Well designed lighting has a positive role in the way people feel about their environment, it can reveal and aesthetically enhance our buildings, improve a sense of local identity, safety and civic pride and make people more willing to use streets, squares and open space after dark. Good quality lighting can also boost an area's night-time use and commercial viability.

Lighting proposals must comply with and follow the recommendations and guidance contained in the current versions of the following documents:

- BS 5489-1: (code of practice for the design of road lighting)
- BS EN 13201-2: (Road lighting - Performance requirements)
- CIE 136: (Guide to the lighting of urban areas)
- CIBSE Lighting Guide 6: The Outdoor Environment
- CIBSE Lighting the Environment: A guide to good urban design
- Secure by Design - Lighting Against Crime
- CIE 150 (Technical Report - Guide on the Limitation of the Effects of Obtrusive Light)
- ILE Guidance Notes for the Reduction of Obtrusive Light

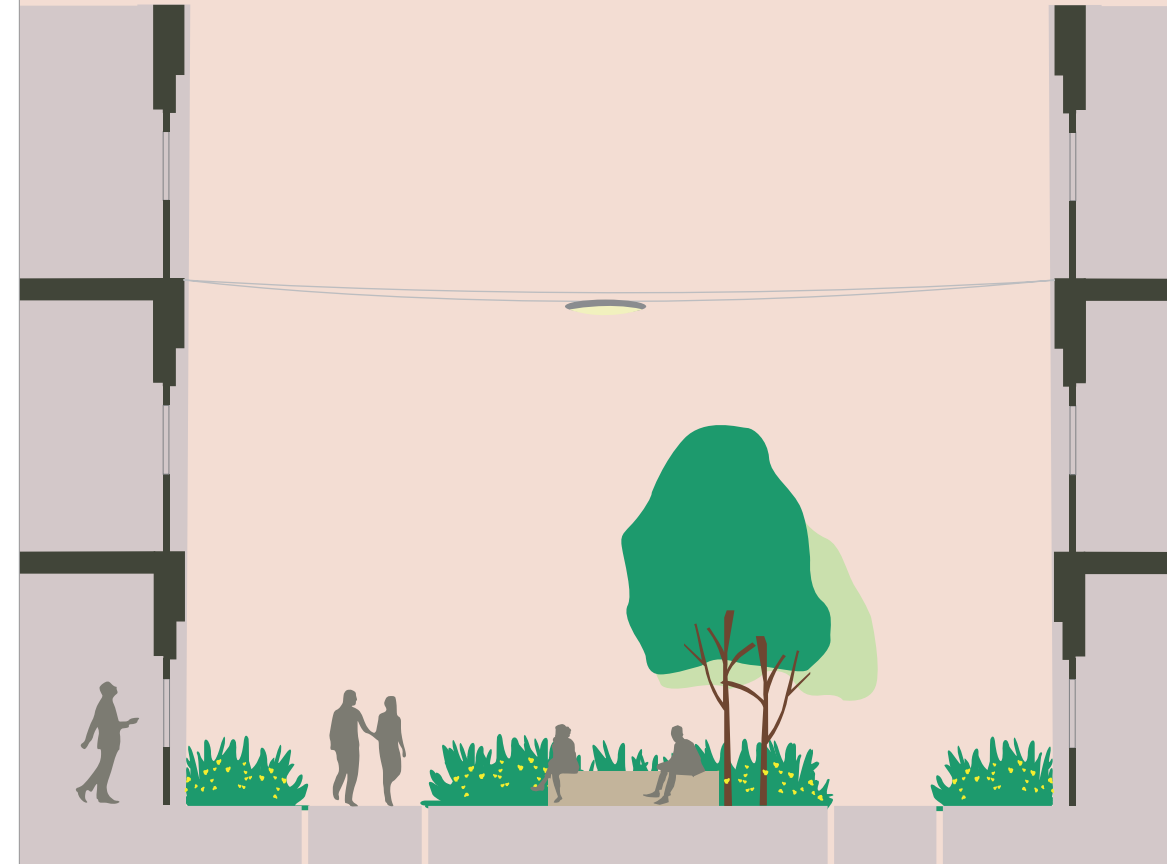
Lighting design should consider the technical performance, visual impression and co-ordinate with other street furniture.

Technical Performance

- Selection of energy efficient sources
- Luminaires with good optical performance - based on two main parameters of efficiency and light distribution, with control devices that mitigate glare or light spill
- Uplighting will be discouraged to avoid glare and prevent light pollution
- Sources with a minimum colour rendering of 90ra with an acceptable colour stability
- Colour temperature within white sources of 4000K (warm white) unless there is a particular design requirement i.e. coordination with existing schemes
- Allow for dimming of light sources during off-peak times
- Flicker free drivers
- Use integrated lighting to changes of level such as staircases or ramps

Visual Impression

Lighting design should provide an appropriate level of illumination, including adequate lighting of users and to vertical surfaces to improve



Catenary lighting to courtyards, pedestrian streets & mews

3.5 LIGHTING AND CCTV *Continued*

ease of movement, legibility after dark and heighten the sense of personal security. Research has shown that the ability to read a person's facial features in an external environment is a key determinant in reducing fear of crime. Particular consideration for lighting should be given to users with specific visual, physical and access needs and requirements.

Unnecessary light pollution should also be avoided and unlit areas of open space may be required to maintain dark skies and benefit nocturnal wildlife such as the protection of bat flight and foraging corridors.

Co-ordination & Materials

Co-ordinate setting out of columns within other street furniture to minimise clutter.

Where column mounted fittings are proposed the height should be informed by highway requirements and environmental setting. Fittings should be simple and straightforward in design and considered as part of a co-ordinated palette of street furniture.

Galvanised steel is the preferred material and should be left unpainted for both aesthetic and maintenance reasons. Where this is not possible light fittings are to be powder coated in RAL 7040. Aluminium columns should be specified in town centre locations.

Where CCTV is required the fittings should be mounted to buildings or light columns to minimise street clutter.

Lighting Controls & Connectivity

Control systems must be used to reduce energy use maintenance costs and be compatible with LBBB current CMS system (Urban Master). Design should consider

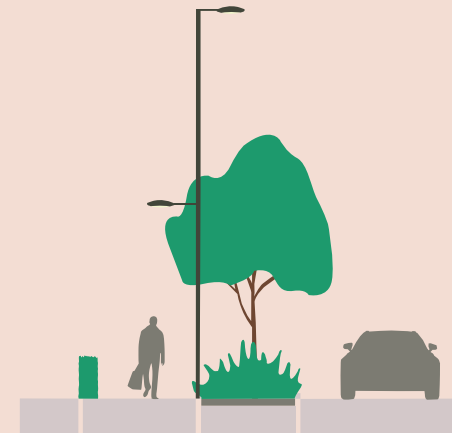
- On & off
- Dimming Lumen Maintenance (adjust lamp output over time to maintain constant light output as lamp ages)
- Scene control (particularly for special locations)
- Photo-sensor control
- Astronomical time control
- Controlled power points
- Wi-Fi points

Light Pollution

Poorly controlled and distributed light and energy wastage impacts the lives of local residents, transportation systems and observation of the stars. Light pollution can disrupt the natural cycles and habits of wildlife and plants, permanently displacing some species altogether.

Lighting design should consider

- Glare
- Light trespass & encroachment
- Sky glow
- Energy waste



Main Roads - 8m column



Residential Streets - 6m column



Pedestrian Areas, Parks & Gardens - min 4m column

3.6 PARKING

Street

Parallel street parking is preferred. Parking will form part of the co-ordinated street edge that may include shrub and perennial planting, rain gardens and integrated overflow drainage, underground refuse storage and tree planting.

As part of the parking strategy, space should be allowed for electric charging points and car club spaces.

Standard bays will be 2m x 6m. Blue badge parking bays will be Part M compliant and a minimum 2.7m wide (max 3.6m) x 6.6m. The parking dimension will inform the width of the street edge between the footway and carriageway.

Blue badge parking will be marked with appropriate signs. Inlaid paving signage is preferred to paint. It is anticipated that where the blue badge parking is the minimum width the adjoining footway can be used for access but not parking and a flush kerb installed.

Materials will comprise granite setts in the town centre, with granite inlaid disabled bay sign. Elsewhere, will be textured concrete setts - permeable where appropriate. Granite kerbs and channels will be laid throughout.

Courts

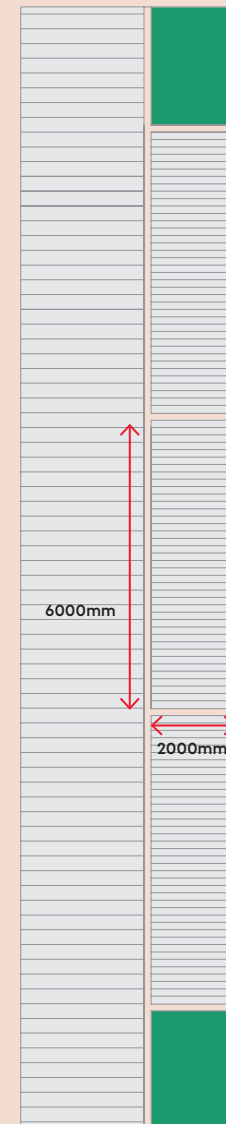
Parking within residential courtyards is to be avoided. Where it is required the bays will be set out to the requisite dimensions. The selection of paving materials and their setting out should present a consistent paved finish that will appear as a residential courtyard and not a carpark.

Materials will comprise clay paviors or textured concrete setts - permeable where appropriate with textured pc concrete flush channels and trims.

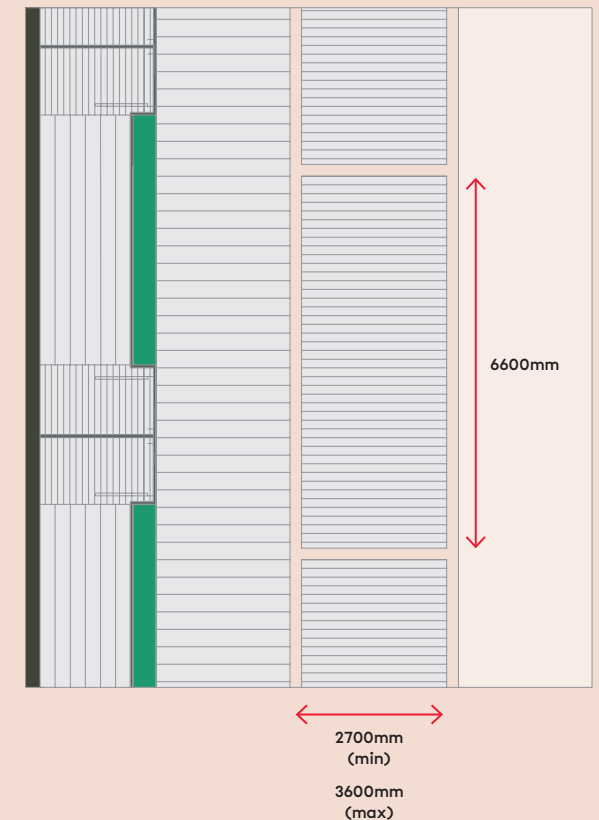


Integrated rain gardens & parallel parking bays

STANDARD PARKING BAYS



BLUE BADGE PARKING BAYS



3.7 ENCLOSURE

Boundary Fences

Be First's strategy is to limit the amount of fences and restrictions to movement across their developments. Where boundary fences are required, they will be 1800mm high, robust, timber framed panels, fair faced both sides and not featherboard. Where it is recommended by Secure by Design (SbD) to install 2100mm high boundary fences, include square section trellis at top to a height of 2100mm high to match fence to allow light in. Planting, including climbers, should be introduced to soften the appearance.

Private Rear Terraces

Terraces and defensible space should align with the depth of balconies above where appropriate or to a maximum width of 2000mm.

Enclosure between private terraces and communal areas will be a maximum 1200mm high, consistent in height and comprise either metal railings or brick wall, depending on the context.

Railings generally will be consistent with the material, colour and finish of the architectural metalwork to balconies within the same building.

Brick walls will match or complement the brickwork to the building facade. Copings to brick walls to be formed using cast stone, keyed into brickwork or brick specials.

Gates will be metal and consistent with the height and design of the adjacent wall or railings.

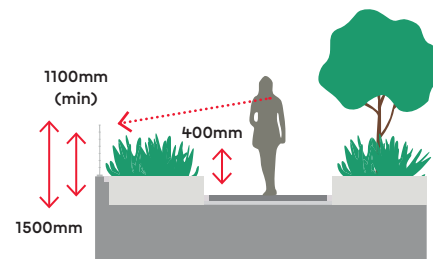
Privacy Screens

Privacy screens between neighbouring rear terraces should be considered where terraces are open to communal areas. They must be consistent in material and at a height to encourage conversations 'over the garden fence'.

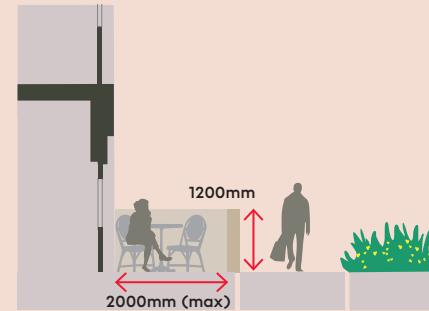
Raised Communal Terraces

On raised terraces with an exposed edge, the balustrade will be a minimum 1100mm high and co-ordinated with the architectural facade details.

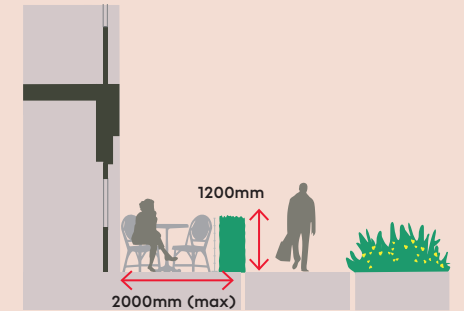
It should match the balcony detail and designed to allow views out from the terrace and up from ground level. The minimum balustrade height must be maintained when planting or furniture is proposed against the terrace edge.



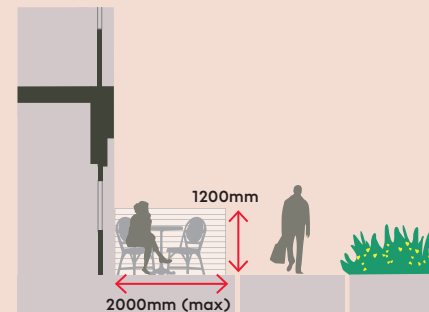
Integrating planting with balustrade



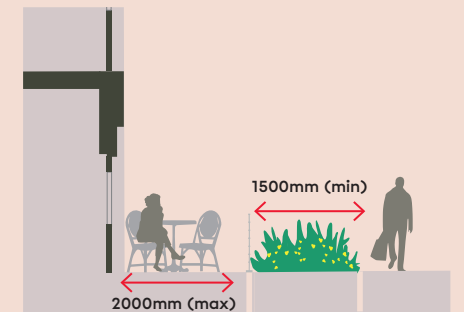
Brick enclosure to private terrace



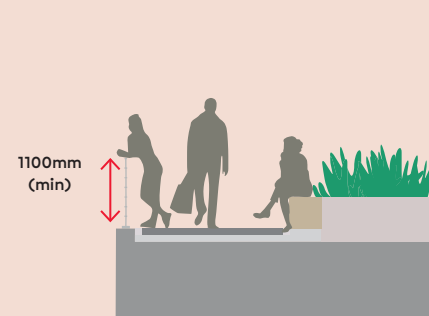
Hedge & railing enclosure to private terrace



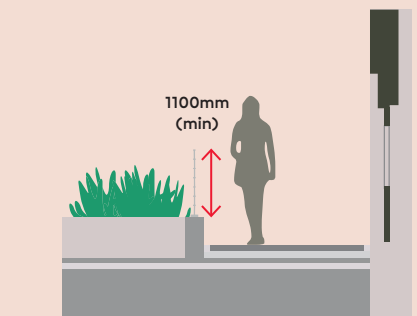
Privacy screen between private terraces



Boundary planting alongside private terraces



Planting setback to maintain 1100mm balustrade height



Private terrace on raised garden

3.7 ENCLOSURE *Continued*

Street Frontage

Defensible space boundaries to street frontages will be a minimum 900mm high, consistent in height and comprise metal railings or brick wall as appropriate to the building design and street context.

Where hedge planting forms part of the defensible edge, it will be planted to the street side to enable consistent maintenance.

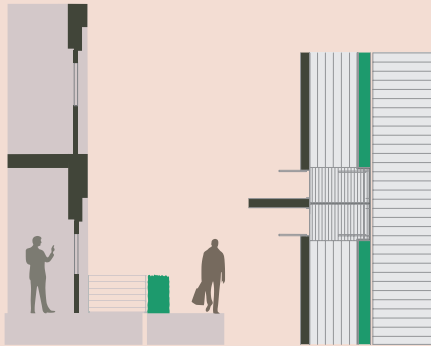
Railings generally will be consistent with the material, colour and finish of the architectural metalwork to the balconies or other built elements.

Brick walls will match or complement the brickwork to the building facade. Copings to brick walls should be formed using cast stone, keyed into brickwork or brick specials.

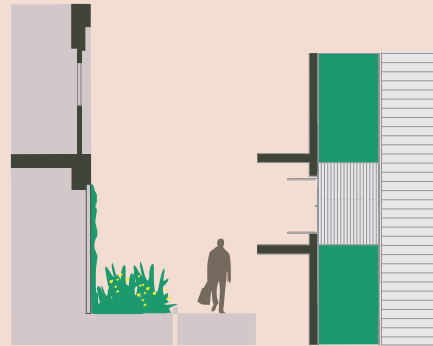
Gates will be metal and consistent with the design and height of the adjacent wall or railings.



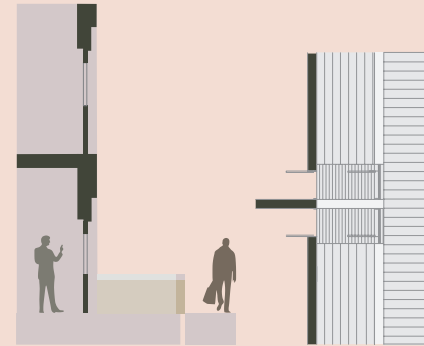
Integration of hedge, railings & entrances



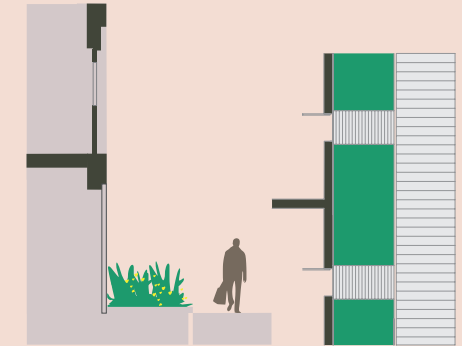
1 Hedge on public side to facilitate management



2 Planted edge and climbers to communal entrance



3 Brick wall with cast stone or brick specials to coping



4 Planted edge to private entrances

3.8 PLAY

All play equipment must be designed to ROSPA's Code of Good Practice for Play Areas, conform to EN1177 and be signed off by an accredited play inspector from the Register of Play Inspectors International (RPII) before use.

Play equipment must be specified from appropriate manufacturers. Robustness and maintenance considerations must inform the selection of the manufacturer and equipment, to ensure that play equipment can be easily maintained and replaced by the supplier.

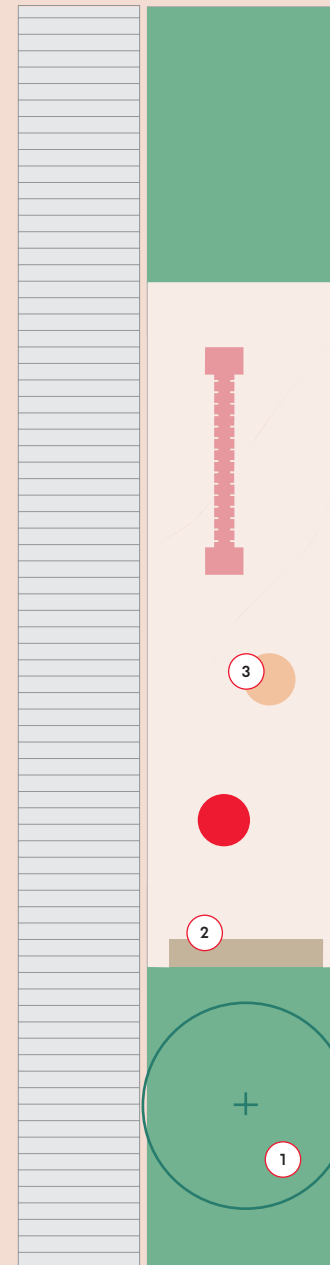
Safety surfaces, where required, will be laid and sett out in accordance with manufacturer's recommendations.

Design development of play areas should make reference to Play England guidance including Design for Play (2008).

Equipment, wherever possible, should aim to provide the five standard play experiences of swing, spin, slide, climb and balance.

Consider facilities for older children and young people eg table tennis and keep fit equipment and ensure there are no conflicts with areas designed for younger children. Any requirement for organised ball games, including Multi-Use Games Areas (MUGAs) should be considered at the early design stage.

Shrub planting must be restricted to the boundaries of play, adjacent to fences or walls. No isolated areas of shrub planting are to be provided. Tree planting should be considered to give shade, but must be carefully integrated to ensure no conflicts with play activities.

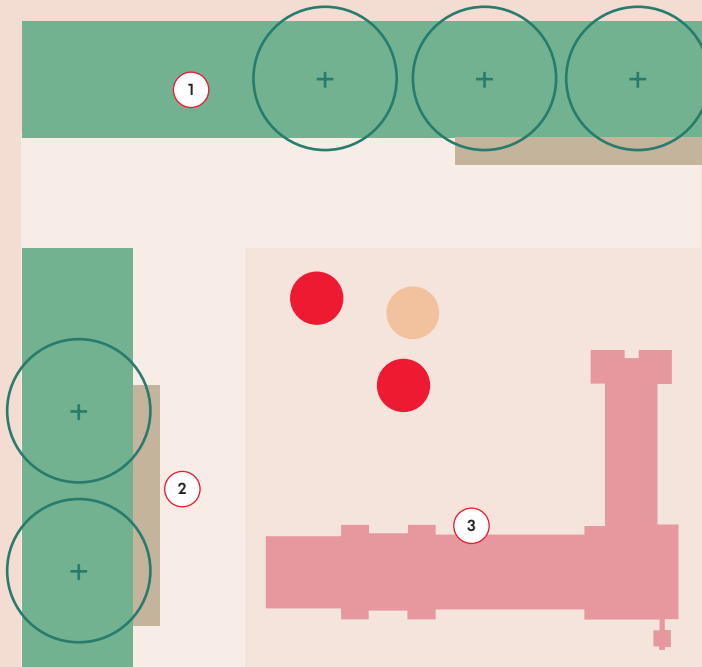


Incidental play on the way



Incidental play on the way

- 1 Rain garden & planting
- 2 Seating
- 3 Multiple use play equipment

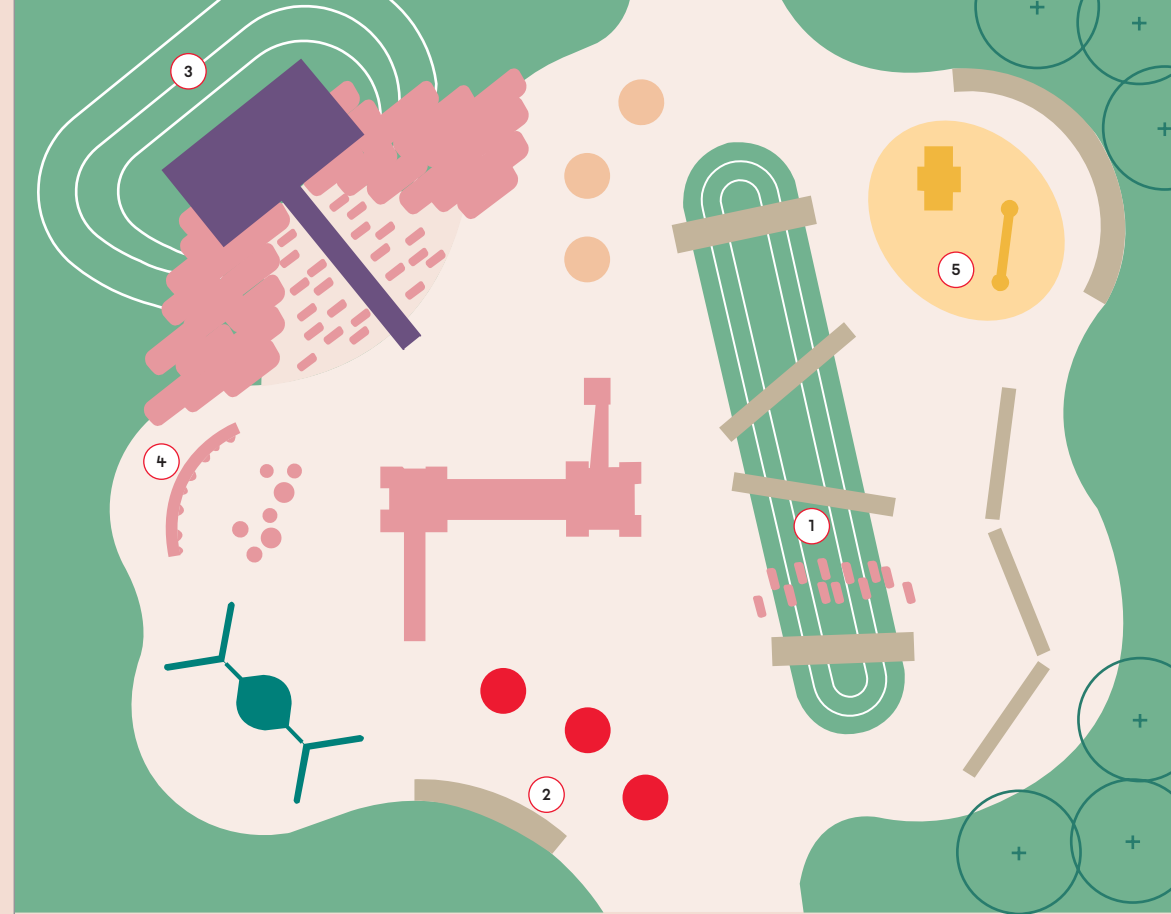


Typical elements of doorstep play

- 1 Robust planting
- 2 Seating for carers
- 3 Multi play structure



Multi play in sand



Typical elements for local & neighbourhood play

- Slide
- Spin
- Jump
- Swing
- Climb

- 1 Interaction with rain garden planting
- 2 Seating
- 3 Landform
- 4 Climbing wall
- 5 Sand play



Swale as part of the play experience

3.9 RAISED GARDEN TERRACES

Where raised communal terraces are planned, ensure that adequate space is allowed for between the top of slab and finished floor level for insulation, drainage and planting in order to keep the height of the raised planters as low as possible above paving level.

All raised planters should be carefully integrated within the terrace design, ensuring adequate growing depths and drainage. Where they are adjacent to terrace edges, ensure the minimum 1100mm high balustrade is not breached by any adjacent planters, soil mounding or furniture.

Resident's comfort must be considered during the design stage and any social areas should enjoy sheltered locations. In more exposed places the balustrade should increase in height to ensure sufficient comfort and safety. Additional protective features such as pergolas and timber screens should also be considered to ensure a comfortable experience.

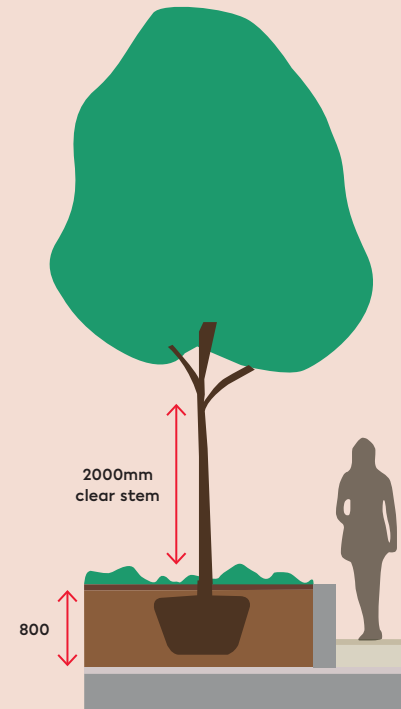
The implications of combustible and inflammable materials, including paving, planting and furniture adjacent to building facades must be considered.

Reference should be made to DCLG Fire Performance of Green Roofs and Walls (2013).

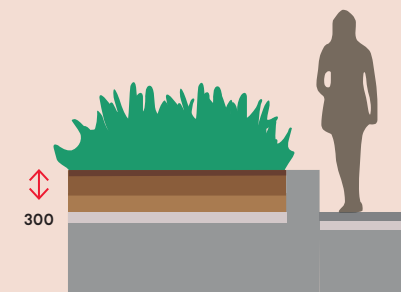
Small areas of amenity grass should be avoided, where larger areas of lawn are considered, allow adequate depths for growing medium and positive drainage. Consideration should be given to introducing wild flower planting to encourage biodiversity.

Larger roof terraces should be divided into outdoor rooms with planting to allow for multiple occupancy, catering for different resident needs. The design and layout must ensure adequate defensible edges, natural surveillance to prevent bullying and anti-social behaviour.

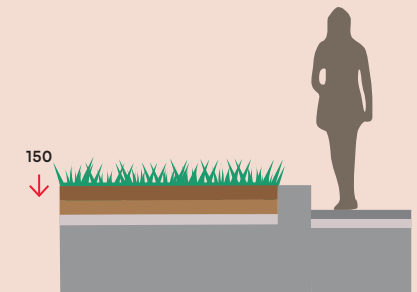
During the design process consider how roof terraces will be maintained and include external landlord's tap, irrigation requirements, storage for maintenance equipment and removal of garden waste.



1 Small Tree and underplanting



2 Planting



3 Grass

3.10 COMMUNAL GARDENS AND POCKET PARKS

Communal gardens and pocket parks provide the opportunity for residents to connect with nature and become immersed in a lush planted environment. They should be considered as part of the SuDS and attenuation strategy, where appropriate, by integrating swales, rain gardens and porous paving.

Design teams should minimise paved areas and aim for 30/70% split between paved and planted areas to avoid barren and visually unattractive environments.

Care must be taken to avoid small vulnerable areas of grass particularly in shady locations or where it might be subject to intensive use. Where grass is proposed ensure it is an appropriate size with adequate drainage layers below to avoid compaction and prolonged wet areas following rainfall.

The therapeutic benefits of gardening are well documented. As part of engaging residents, food growing should be considered an integrated

component of the planted garden, with places for communal eating aimed at encouraging families and friends to come together. The opportunity of establishing gardening clubs and a regular programme of outdoor activities will be encouraged.

Consideration should be given to shelters and pergolas to provide a degree of privacy from views above and a focus to the garden.

Separation between communal gardens and private living space and outdoor terraces should be planted to reinforce the green qualities of the space.

Ensure an outside tap is provided for use by the management and maintenance teams as well as residents.



Food growing bringing neighbours together



Seating overlooking play

REFERENCE DOCUMENTS

Design development should make reference, but not limited, to the following planning and design policy and guidance documents and publications:

- CIRIA (2013) Water Sensitive Urban Design in the UK
- CIRIA (2015) The SuDS Manual
- DfT (2007) Manual for Streets
- GLA (2008) Technical Report on Living Roofs and Walls
- GLA (2014) Sustainable Design and Construction SPG
- GLA (2019) Good Practice Guidance on Living Roofs and Walls
- GLA (2019) The 'New' London Plan
- GLA (2020) London City Resilience Strategy
- HMCLG (2019) National Design Guide
- HMCLG (2019) National Planning Policy Framework
- LBBB (2009) The Barking Code for the Public Realm
- LBBB (2010) Adopted Core Strategy
- LBBB (2012) Biodiversity SPG
- LBBB (2012) Tree and Development SPG
- LBBB (2017) Townscape and Socioeconomic Characterisation Study
- LBBB Local Plan
- Play England (2008) Design for Play
- Natural England (2011) London's Natural Signatures
- TCPA (20014) Biodiversity by Design
- TDAG (2012) Trees in Townscape: A Guide for Decision Makers
- TDAG (2014) Trees in Hardscape, A Guide for Delivery
- TfL (2014) London Cycling Design Standards
- TfL (2017) Healthy Street for London
- TfL (2019) Streetscape Guidance
- UKGBC (2009) Biodiversity and the Built Environment

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