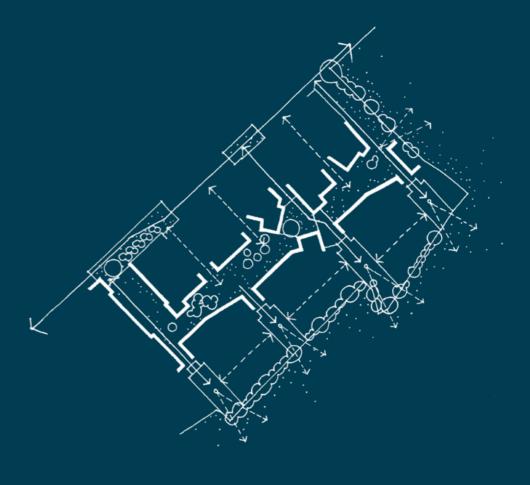
O2 OVERARCHING DESIGN CODE PRINCIPLES



2.0 INTRODUCTION

This chapter includes codes and overarching principles that are common for all three Merton regeneration sites. These codes guide all development, embed good urban design principles and ensure that proposals meet national and local policy standards.

Simple diagrams accompany text and illustrate 'good' and 'bad' examples of development elements.



2.1 USE

- **2.1.1** Land uses within each site shall be in accordance with their respective Parameter Plans.
- **2.1.2** Land uses within the development are to create focal points and activity zones in the most suitable locations.
- **2.1.3** The development should enable the creation of a neighbourhood and should be integrated with the surrounding area.
- **2.1.4** Primary land uses are to be in accordance with those of the surrounding area.
- **2.1.5** Different uses within mixed-use buildings and blocks, should be clearly identifiable and suitable to their location.

2.2 AMOUNT

- **2.2.1** The amount of residential development within each site will be controlled by the proposed residential unit numbers of each site.
- **2.2.2** Site massing to contribute to legibility and placemaking within the development.
- **2.2.3** The development proposals are to demonstrate careful consideration of the proposed building heights in relation to the creation of new district character areas or existing context.
- **2.2.4** In each development site consideration shall be given to maximising the potential of dual aspect units.

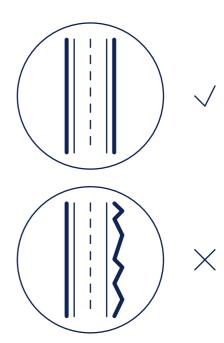
2.3 BUILDING LINES

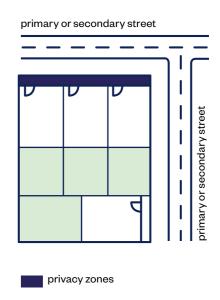
Frontages

- **2.3.1** Ground floor building frontages shall align parallel to the street.
- **2.3.2** Continuity in the building frontages will enclose spaces and create continuous pedestrian routes. Breaks in the built frontage are to be minimised.
- **2.3.3** Breaks between buildings are to be optimised, identifying changes in scale and street character, and offering visual definition to the interaction between the street and internal courtyards.
- **2.3.4** Where the building changes in height there should be a vertical division. Vertical division should be expressed within the building fabric.

Privacy zone & separation

- **2.3.5** All dwellings with ground floor habitable rooms and front doors are to be accessed directly from primary and secondary streets. Carefully detailed privacy zones of 1 to 3 metres measured from the back of pavement to the building line, will offer a comfortable connection to the street.
- **2.3.6** Privacy zones are not required on building faces with no front doors onto secondary or primary streets.
- **2.3.7** Privacy zones shall not lie outside the development block boundary.
- **2.3.8** The established building line shall be either the edge of the privacy zone or, where there is no privacy zone, the building line can deviate by 1 to 3 metres from the development block towards the interior of the Parcel.
- **2.3.9** The established building line, the depth of the privacy zone, where applicable, and the building frontage shall each remain consistent along the street.





2.4 BUILDING ENVELOPE

Principal Frontages

2.4.1 A principal frontage is an elevation of importance within each development.

Principal frontages shall:

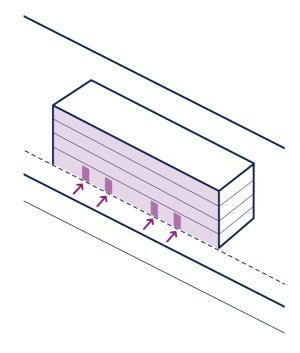
- Contribute positively to the character of the public spaces they define.
- · Maximise active frontages.
- Include clearly highlighted building entrances, balconies and windows.
- Use high quality materials and finishes, adopting a limited palette of materials, and developing a consistent approach to the design of the façades. Façade detailing should maintain a coherent rhythm.
- Feel robust and grounded.
- Consist of active ground floor frontages in the case of non-residential ground floor uses.
- Minimise the use of service vents and avoid blank, undifferentiated, untreated walls at the ground floor level.

Principal frontages shall not:

- Include car parking entrance
- · Include servicing access doors

Rear Elevations

2.4.2 Rear elevations are to be located on the rear of the plot boundary, fronting onto the access street. Scope to adjust each site's design principles relating to rear elevations will allow for site specific approaches.



2.5 STREET PROPORTIONS

Hierarchy

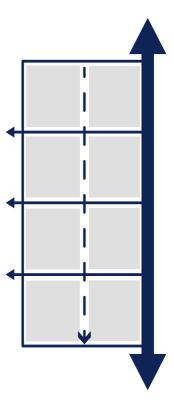
- **2.5.1** Every development shall incorporate a clear hierarchy of streets. This hierarchy will be defined by the character and function of each street rather than the street's vehicular capacity.
- **2.5.2** In each development the strategy for the street hierarchy is to incorporate the location of principal frontages.

Function

2.5.3 Streets will be designed as multi-functional spaces serving not only the circulation of pedestrians, cyclists and vehicles but also providing spaces for play and social interaction.

Character

- **2.5.4** The character of each street is defined by its role within the public realm, as well as the types of buildings and landscapes in it.
- **2.5.5** The character of each street will contribute to the overall character of each development.
- **2.5.6** Streetscape design will focus on creating a sense of enclosure. The width of new streets will be proportionate to the heights of buildings and their location.

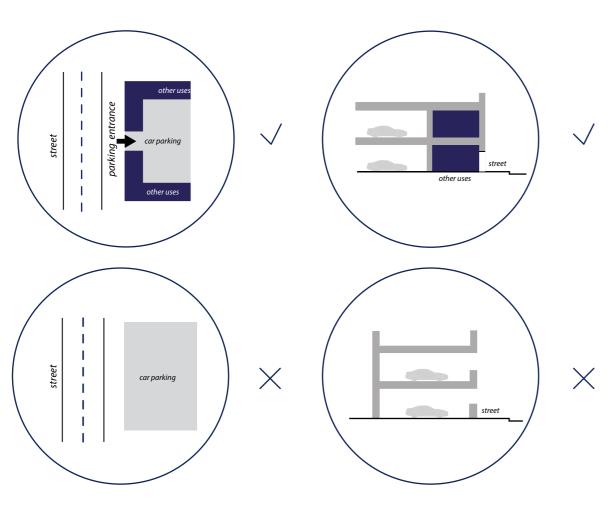


2.6 PARKING STRATEGY

Podium car parking

2.6.1 Podium/under-croft parking above ground level shall be surrounded by other uses so that active frontages are maintained along the streets.

2.6.2 Where possible, podium/under-croft car parking will be serviced via passive ventilation, minimising the need for mechanical ventilation and reducing running costs.

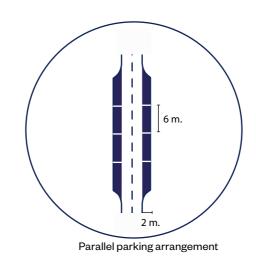


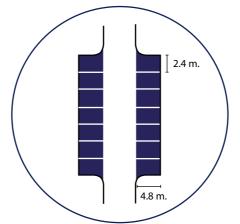
Car parking entrances

- **2.6.3** Car parking entrances will be designed as part of the building façade.
- **2.6.4** Entrance points will be secure and overlooked.
- **2.6.5** Careful consideration to avoid extensive areas with no active frontage.
- **2.6.6** Car parking entrances will not be located on principal frontages.
- **2.6.7** Car parking entrances must be at ground level and not at first floor level, to avoid the need for entrance ramps.
- **2.6.8** Car parking entrances will be integrated within the block design.
- **2.6.9** Where entrance ramps protrude into communal landscape gardens they should be designed to provide usable and attractive amenity spaces.

Off- street car parking

- **2.6.10** With the exception of individual houses including terraced and mews houses, off-street parking shall be within a fully enclosed space with openings into the car park only, permitted vehicular access and ventilation.
- **2.6.11** Parking courts should be carefully designed, so as to be overlooked, with direct access to/from the surrounding dwellings, and have adequate lighting.





Perpendicular parking arrangement

On-street car parking

- **2.6.12** By using careful and innovative design, streets can be made to incorporate a level of unallocated on-street parking in the form of parallel or perpendicular parking bays or parking squares.
- **2.6.13** Car parking spaces shall be located on a level surface.
- **2.6.14** Car parking bays width shall be:
- Parallel parking bays 2.0m minimum
- Perpendicular spaces 2.4m minimum
- **2.6.15** Landscaping is important and should be incorporated into parking areas but in some circumstances landscaping can reduce the available bay size for vehicles meaning a reduced availability of parking spaces.
- **2.6.16** Car parking bays and tree planting integration shall be considered in relation to the individual streetscape character as set out in the Landscape and Public Realm section of this document (chapter 4).
- **2.6.17** The location and design of car parking spaces will encourage maximum use.
- **2.6.18** Disabled parking bays that comply with the minimum disability standards will be provided.
- **2.6.19** Parking provision for people with disabilities are to be considered. Inclusive design principles should be considered to meet the changing mobility requirements of residents.

LANDSCAPE & PUBLIC REALM

2.7 MOVEMENT, ACCESSIBILITY & WAYFINDING

- **2.7.1** Access to the site is to be obvious and easy for all users.
- **2.7.2** Sites will be designed to minimise conflict between users arriving on foot, bicycle or by vehicle.
- **2.7.3** Developments will respect the urban grain and existing movement network to avoid restrictions to public accessibility.

Pedestrian footpaths & access

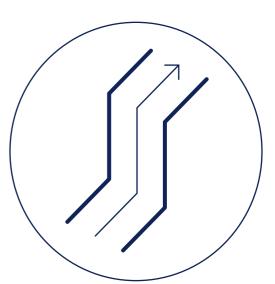
- **2.7.4** Safe and suitably surfaced routes shall be provided throughout the site with adequate lighting.
- **2.7.5** Surfaces for pedestrian use are to be smooth, even and suitable for wheelchair users.
- **2.7.6** Appropriate barriers (raised planters, shrub massing, bollards, or moveable fences) are to be provided to keep vehicles out of pedestrian and landscape areas.
- **2.7.7** Walkways should be hard-surfaced and raised above the surface of the parking area.
- **2.7.8** Primary pedestrian routes will be emphasised through wider walkways and enhanced landscape treatments.
- **2.7.9** Pedestrian crossings will be provided at major vehicle intersections. Raised surfaces are encouraged.
- 2.7.10 Walkways will connect amenity spaces.
- **2.7.11** Commercial uses are encouraged to provide a mix of paving materials to be located near the main building entrances, defining the priority for pedestrian access.

Vehicular movement

- **2.7.12** Sites are to be designed to promote safe vehicle movement and traffic calming.
- **2.7.13** Good visibility is required in all types of vehicle roads, minor roads and shared surfaces.

2.8 STREETSCAPE CHARACTER & HIERARCHY

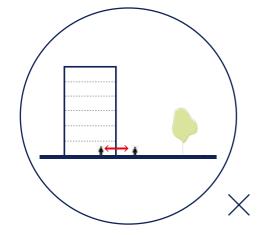
- **2.8.1** A variety of streetscape characters with a clear street hierarchy will be provided.
- **2.8.2** Streetscapes will have a unique character and enhance the quality and characteristics of the site.
- **2.8.3** New streetscapes will include landscaping schemes that maintain local distinctiveness and character and promote biodiversity.
- **2.8.4** Opportunities to provide vistas, focal points and landmarks shall be taken advantage of, to provide legibility and a sense of identity.
- **2.8.5** A variety of characters shall achieve a practical balance between long term environmental health and the demands of modern day living.
- **2.8.6** Pedestrian-only zones at points of primary pedestrian connections.
- **2.8.7** Surface finishes and colours will be used to define routes, crossings and pedestrian-only
- **2.8.8** Street furniture will be used to define safe zones/routes.
- **2.8.9** The relationship of landscape furnishings to buildings, walkways, paths, and courtyard areas is important in defining the character.



2.9 PRIVATE & COMMUNAL AMENITY SPACE

Gardens & defensible spaces

- **2.9.1** Development will aim to use landscaping to create distinction between public and private spaces.
- **2.9.2** Private and usable outdoor garden space will be provided in residential developments.
- **2.9.3** Outdoor garden space, for informal recreation and enjoyment, is to be of a size and dimension to suit the requirements of the building's occupants.
- **2.9.4** Outdoor amenity space for homes will be directly accessible from the house to allow for secure and private outdoor use and children's play.
- **2.9.5** The orientation of outdoor garden space shall aim to retain natural features of the site, where possible, maximising natural light, offering neighbours and future occupants a reasonable level of privacy.



Courtyards & rear gardens

- **2.9.6** Communal amenity space to be provided in accordance with the London Plan Housing SPG.
- **2.9.7** The communal gardens shall allow for tree/large shrub planting.
- **2.9.8** Rear façades to retain a high quality of design.
- **2.9.9** All elevations facing into courtyards are to work harmoniously as a single element.
- **2.9.10** The use of light coloured materials are to be considered to maximise sun light reflection.
- **2.9.11** Balconies and windows from the upper apartments need to be carefully positioned to avoid, wherever possible, overlooking into private gardens/patios at ground level.
- **2.9.12** Materials on courtyard elevations do not necessarily need to accord to materials used on street elevations.
- **2.9.13** Each courtyard shall have a distinctive sense of identity.
- **2.9.14** Special regard will be paid to gable-end elevations and how the transition from street to courtyard is handled and expressed.
- **2.9.15** Orientation will be carefully considered to prevent overshadowing and to maximise natural daylight.

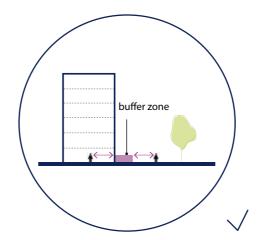
2.10 PUBLIC OPEN SPACES

Design

- **2.10.1** Create transitional zones between public and private spaces through layers of landscaping.
- **2.10.2** Public spaces will face active frontages and be well overlooked.
- **2.10.3** Provide a variety of activities taking into account the needs of different users.
- **2.10.4** Landscaping is to help the visitor orientate through a space.

Planting

- **2.10.5** The choice of tree species and planting shall reflect the road hierarchy whilst encouraging and attracting biodiversity. Mature landscaping should be considered where possible.
- **2.10.6** Vibrant and attractive planting shall be introduced to create interesting landscape character.



Security

- **2.10.7** Crime prevention principles are to be strongly adopted, including defensible space, natural surveillance, visibility, street lighting and other security measures.
- **2.10.8** Development is to avoid the creation of dark, hidden and badly overlooked corners, routes or spaces.

Lighting

2.10.9 Public space shall be well lit in order to aid security and natural surveillance, whilst considering local ecology and private habitable rooms.

Street furniture & art

- **2.10.10** Areas of public space and greenery are to include the provision of adequate street furniture and public art.
- **2.10.11** Street furniture shall be carefully considered to offer attractive, functional and long lasting designs.
- **2.10.12** Public art is to have local significance, creating landmarks of attraction which relate to the buildings or space surrounding them.
- **2.10.13** Public art shall sit in a location that does not cause safety concerns or attract antisocial behaviour.

SCALE & MASSING

2.11 PLAY SPACES

Design

- **2.11.1** All play areas are to be considered and designed in accordance with the GLA play provision calculations.
- **2.11.2** Play areas must be designed and constructed in response to the needs of all users, including children, parents and carers.

Location

- **2.11.3** Play spaces are to be strategically located within the masterplan to minimise noise impact on dwellings.
- **2.11.4** A variety of spaces will be required, including those suitable for younger children located close to amenities and those suitable for a broader age range located further away. Off-site provision can be proposed.

Safety

2.11.5 Safety surfaces are intended to prevent serious accidents and head injuries and are only needed where there is movement or danger of falling.

Seating

- **2.11.6** Play areas are to include seating for children and young people, which could also double as play equipment.
- **2.11.7** Seating shall also be provided for adults inside the play environment rather than outside to encourage parents to engage in their children's play.

Activities

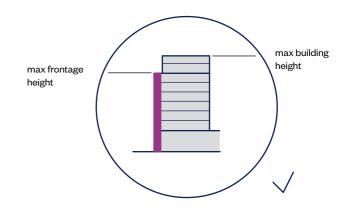
2.11.8 It is important to consider the sort of challenges and activities that children may want to take part.

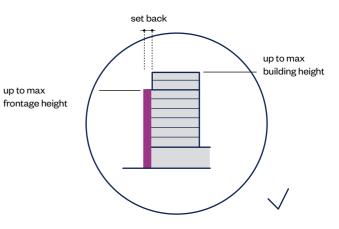
2.12 SUSTAINABLE LANDSCAPE & PUBLIC REALM

- **2.12.1** Streets will be designed to maximise the retention of existing vegetation and significant mature trees.
- **2.12.2** Development will consider the surrounding green infrastructure and wildlife habitats with a view to developing strategies that link up existing wildlife corridors or create new ones.
- **2.12.3** The incorporation of green roofs, green walls and features that would improve biodiversity levels will be encouraged.
- **2.12.4** Paving materials and components should be permeable and be assessed according to their whole life costs and maintenance, where possible.

2.13 BUILDING HEIGHTS

- **2.13.1** Built development accords with the maximum height parameters, with maximum building heights specified within the relevant Application Drawings.
- **2.13.2** New residential development should consider the height, scale and boundaries of the surrounding context buildings and character.
- 2.13.3 Buildings can rise to the maximum building height as specified in the relevant Application Drawing. Set back from the frontage could be introduced to top floors of the built form to minimise visual impact along the street. All set backs should be designed as usable amenity space where possible



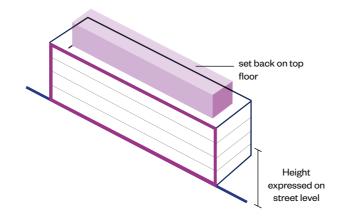


SCALE & MASSING

2.14 BUILDING ARTICULATION

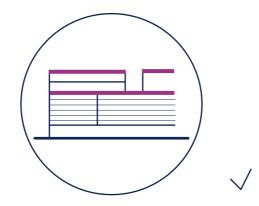
Set backs

- **2.14.1** Set backs on top floors should be architecturally expressed to minimise the impact of building massing along the street.
- **2.14.2** Set back of buildings to create a continuous building frontage, providing definition.
- **2.14.3** All new residential development will conform to strong existing building lines maintaining continuity where it forms a desirable element of elevation.



Parapets

2.14.4 The use of sloped roofs/parapets will be restricted to specific character areas where required. Any slopes to be carefully designed to avoid future maintenance or management issues.

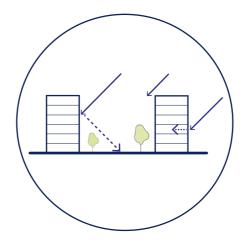


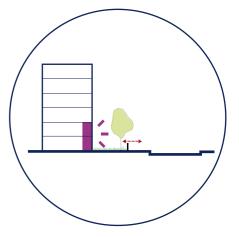
Sunlight

- **2.14.5** There will be adequate sunlight onto private and communal outdoor spaces.
- **2.14.6** Dual aspect is encouraged to allow more light into the dwelling and for cross ventilation. Where dual aspect cannot be provided, the single aspect will permit adequate light and ventilation and a high quality of design will be achieved.
- **2.14.7** All habitable rooms will have access to natural daylight.
- **2.14.8** North facing single aspect units will be avoided.
- **2.14.9** Windows, especially those that are vertically oriented are to be spread out rather than concentrated to maximise daylight within dwellings.
- **2.14.10** New development will not cause excessive overshadowing of amenity spaces or neighbouring properties and dwellings.
- **2.14.11** No new development will result in the complete loss of sunlight to all parts of an existing adjoining property.

Privacy

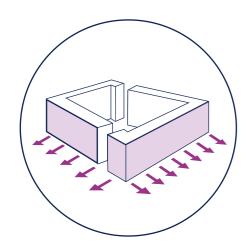
- **2.14.12** Good design is necessary to address any potential privacy and overlooking issues including but not restricted to:
- the distance between properties and windows to habitable rooms;
- the orientation of buildings and windows;
- the size, design and positioning of windows and habitable rooms in the affected dwellings;
- the incorporation of design measures such as the use of screens, obscure glass and fixed windows.
- **2.14.13** The sizing and location of windows will minimise overlooking between habitable rooms, private amenity areas, and other private areas.
- **2.14.14** Effective, innovative design measures may be adopted to preserve privacy and minimise overlooking of existing properties.





2.15 ACTIVE FRONTAGES

- **2.15.1** External elevations of buildings are to have habitable rooms overlooking the street, to promote natural surveillance and safe public spaces, as well as to provide interest along the street.
- **2.15.2** Ground floor flats and maisonettes will have front doors to the street, where possible.
- **2.15.3** Communal entrances to upper level flats will open onto the street. Front boundaries will be designed as transition spaces between the public and the private space.
- **2.15.4** Blank frontages facing the public realm will be avoided.
- **2.15.5** No more than 15 metres of blank contiguous frontage facing the public realm will be allowed within the development.



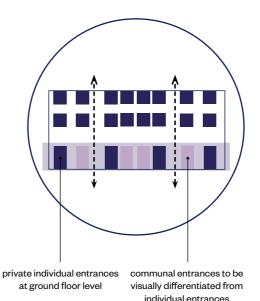
2.16 ENTRANCES & THRESHOLD

Individual private entrances

- 2.16.1 The entrance to residential buildings marks the transition between public and private space. Front entrances and threshold areas will be considered in relation to the location of the buildings, to add coherence to the design and contribute to public realm safety.
- **2.16.2** Front entrances will be distinctive and in keeping with the design of the main façade.
- **2.16.3** All entrances will provide level access and sufficient drainage to prevent flooding.
- **2.16.4** The design of entrances will have regard to Secured by Design principles, providing natural surveillance from a point of safety inside the dwellings.
- **2.16.5** Defensible space will be provided to all ground floor properties to ensure privacy.
- **2.16.6** All residential entrances are to be covered/ sheltered.

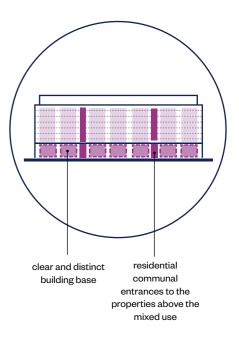
Communal entrances

- **2.16.9** Communal entrances will be well proportioned and visually distinguishable from private off-street entrances.
- **2.16.10** Communal entrances will not be significantly recessed. Small set backs to facilitate articulation and covered entrances could be utilised. Design of communal entrances will have regard to Secured by Design principles.



2.17 MIXED USE INTEGRATION & OPERATION

- **2.17.1** Residential dwellings above non-residential will have separate and distinct access.
- **2.17.2** Elevations and massing of mixed use will be distinct from the adjacent residential dwellings.
- **2.17.3** Architectural elements will provide rhythm and regularity along building elevations, the mixed use element will harmonise with and maintain that rhythm.
- **2.17.4** Commercial units to contribute to a clear and distinct building base.
- **2.17.5** Mixed use must integrate with the street and create active frontages at street level.
- **2.17.6** Retail and commercial units will maximise the use of glazed façades to provide animated frontages. There will be no blank non-active façades.
- **2.17.7** Spill out activities may be allowed for commercial units to provide an animated open space environment. Location of any spill out activities will be carefully considered and will be associated with appropriate open spaces.



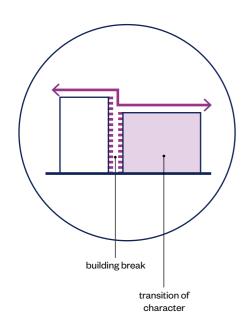
2.18 BUILDING BREAKS & CORNERS

Building breaks & gable ends

- **2.18.1** Building breaks contribute to placemaking and increase the level of sunlight for the spaces behind the façade.
- **2.18.2** Building breaks will contribute to the transition between different street characters.
- **2.18.3** Gable-ends will have an active frontage, fenestration and balconies will create interest and provide natural surveillance of the street.
- **2.18.4** Gable-ends will articulate the transition between street façades and courtyard façades. Balconies, windows, different materials and colours will provide the transition.

Corner blocks

- **2.18.5** Corner Blocks will mark turning points and contribute to wayfinding.
- **2.18.6** Corner Blocks will provide the transition between the character of two different streets.
- **2.18.7** Corner Blocks will optimise the active frontages to both façades and explore opportunities for landmark elements.



2.19 BALCONIES, TERRACES & WINTER GARDENS

Terraces & balconies

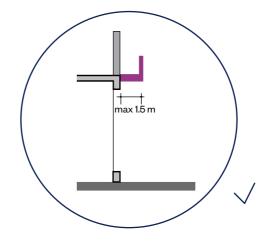
- **2.19.1** All homes will have private external amenity space with level access, in the form of a balcony, terrace or garden.
- **2.19.2** Balconies will be large enough and shaped to maximise usability. Minimum width to be 1.5m.
- **2.19.3** Balconies will be designed and finished consistently and will be tenure blind.
- **2.19.4** Maximum level of privacy to balconies may be provided by semi-recessed or fully recessed balconies and/or the use of privacy screens and opaque materials.
- **2.19.5** Balconies can project beyond the back of the pavement line by a maximum of 1.5m subject to providing both appropriate clearance and a minimum clear pavement width of 2m over which no balcony is located.
- **2.19.6** Balconies shall not be curved in plan or section. Deviations from the orthogonal line of the façade in plan may be acceptable.
- **2.19.7** Balconies shall be fully integrated into the architecture of the building, in both material and composition.

Deck access balconies

- **2.19.8** Deck access shall only be used in appropriate situations such as to facilitate dual aspect dwellings.
- **2.19.9** Deck access balconies should be integrated within the design and not appear to be bolt on.

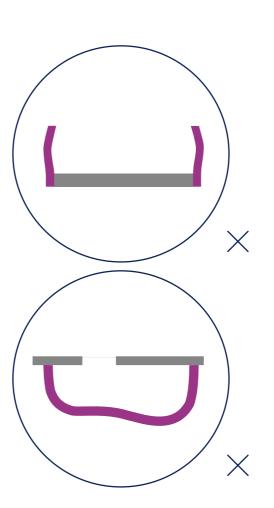
Winter gardens

- **2.19.10** Winter gardens will be considered when building aspect and orientation requires balconies on northern elevations or elevations fronting busy roads to facilitate better use and to provide thermal or acoustic buffers.
- **2.19.11** Balconies may be adaptable for winter garden enclosures to provide an extension to internal rooms that are usable throughout the year.



2.20 WINDOWS

- **2.20.1** Windows shall be at least two thirds of the floor and ceiling height of the storey.
- **2.20.2** Window proportions will be maintained where possible to keep continuity along building façade.
- **2.20.3** The location and proportion of windows will maximise access to daylight and ventilation.



2.21 INTERNAL CIRCULATION

Internal floor area

2.21.1 All residential units are to meet the following minimum space standards (Housing SPG, March 2016).

	Dwelling type	Essential GIA
	(bedroom/persons)	(sq.m)
Single storey	1b1p	39 (37*)
dwelling	1b2p	50
	2b3p	61
	2b4p	70
	3b4p	74
	3b5p	86
	3b6p	95
	4b5p	90
	4b6p	99
Two storey dwelling	2b4p	79
	3b4p	84
	3b5p	93
	4b5p	97
	4b6p	106
Three storey	3b5p	99
dwelling	4b5p	103
	4b6p	112

*Where a one person dwelling has a shower room instead of a bathroom, the floor area may be reduced from 39 sq.m to 37 sq.m, as shown bracketed.

For dwellings designed for more than 6 people, at least 10 sq.m gross internal area should be added for each additional person.

2.21.2 Dwelling plans will demonstrate that dwellings accommodate the furniture, access and amenity space requirements relating to the declared level of occupancy.

Privacy

2.21.4 Design proposals will demonstrate how habitable rooms are provided with an adequate level of privacy in relation to neighbouring property, the street and other public spaces.

Floor to ceiling heights

2.21.5 The minimum floor to ceiling height in habitable rooms is 2.5m between finished floor level and finished ceiling level. A minimum floor to ceiling height of 2.6m in habitable rooms is considered desirable and taller ceiling heights are encouraged in ground floor dwellings.

Cores

- **2.21.6** Hallways and other circulation spaces to conform to The Building Regulation 2010, M4(2) and M4(3)
- **2.21.7** The number of dwellings accessed from a single core should not exceed eight per floor. (Recommendations for Living at Superdensity, Design for Homes 2007)
- **2.21.8** An access core serving four or more dwellings should provide an access control system with entry phones in all dwellings linked to a main front door with electronic lock release. (Part Q of the Building Regulations)
- **2.21.9** Where dwellings are accessed via an internal corridor, the corridor should, where possible, receive natural light and adequate ventilation.
- **2.21.10** The minimum width of all paths, corridors and decks for communal circulation is 1200mm. The preferred minimum width is 1500mm, and is considered particularly important where corridors are double loaded (serve dwellings on each side) and where wheelchair accessible dwellings are provided. (Housing SPG, March 2016)

Lifts

- **2.21.12** At least one lift per core should be provided in all blocks of flats where any dwellings are entered on or above the fourth floor (fifth storey), measured from the main entrance level.
- **2.21.13** All lifts must conform to <u>The Building</u>
 Regulation 2010, Communal lifts and stairs, M4(2)
- **2.21.14** For buildings with dwellings entered from communal circulation at the first, second or third floor where lifts are not provided, space should be identified within or adjacent to the circulation cores for the future installation of a wheelchair accessible lift. (Housing SPG, March 2016)
- **2.21.15** All dwellings entered at the fourth floor (fifth storey) and above should be served by at least one wheelchair accessible lift, and it is desirable that dwellings entered at the third floor (fourth storey) are served by at least one such lift. All dwellings entered at the seventh floor (eighth storey) and above should be served by at least two lifts. (Housing SPG, March 2016)
- **2.21.16** Every designated wheelchair accessible dwelling above the ground floor should be served by at least one wheelchair accessible lift. It is desirable that every wheelchair-accessible dwelling is served by at least two such lifts. (Housing SPG, March 2016)

Stairs

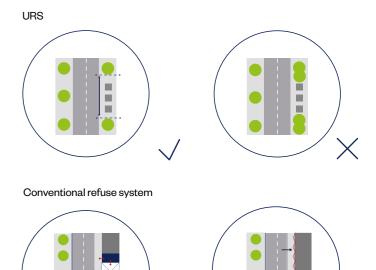
2.21.17 Stairs, ladders and ramps shall be designed, constructed and installed in order to be safe for people moving between different levels of a building. (Approved document K)

2.22 CYCLE & REFUSE STORAGE

- **2.22.1** Cycle storage may be provided within individual dwellings and, where possible, the target floor areas should account for this provision. In addition to this, there could be communal cycle stores located within the blocks of flats and courtyards.
- **2.22.2** The design will include convenient and sheltered cycle storage for new homes to encourage people to use bicycles for everyday journeys.
- **2.22.3** Floor-space of 750 x 2000mm is a suitable guideline area per bicycle. Vertical hanging and lockers will have different (lesser) space requirements.
- **2.22.4** Cycle storage outside the home should be located in a convenient and easily accessible storeroom, private garden or secure common space close to the street.
- **2.22.5** All developments should provide dedicated storage space for cycles at the following levels:
- 1 per studio and 1 bedroom dwelling; or
- 2 per 2 or more bedroom dwelling.
- 2.22.6 Individual or communal cycle storage outside the home will be secure, sheltered and adequately lit, with convenient access to the street. Where cycle storage is provided within the home, it will be provided in addition to the minimum GIA and minimum storage and circulation space requirements. Cycle storage identified in habitable rooms or on balconies is not considered acceptable.
- **2.22.7** Developments will provide cycle parking provision for visitors; secure hoops or stands that facilitate the effective locking of bicycles are the most convenient for short stay use.

- **2.22.8** Cycle stands should be located away from main pedestrian desire lines to avoid creating obstruction and will be well lit and overlooked.
- **2.22.9** Flats: Communal refuse stores will be located on ground floors and integrated within the building fabric.
- **2.22.10** Houses: All dwellings with a private front door access will have sufficient storage space for individual refuse bins located adjacent to the entrance and integrated within the fabric of the building. Bins will not be located free-standing within the front garden. Design arrangements for communal refuse storage for these dwellings may also be considered.
- **2.22.11** Communal refuse and recycling containers, communal bin enclosures and refuse and recycling stores should be easily accessible to all residents including children and wheelchair users, and located on a hard, level surface. (Housing SPG, March 2016)
- **2.22.12** Recycling is to be split into two streams paper and card and other 'dry mixed recyclables'.
- **2.22.13** For homes using the conventional waste collection system, the following is assumed:
- 240 litre wheeled bin for refuse waste
- 240 litre wheeled bin for paper and card recycling
- 55 litre box for mixed recycling
- 23 litre external caddy (7 litre internal food caddy) for food waste

- **2.22.14** The Underground Refuse System bins (URS) bins for recycling and residual waste are to be located, where possible, to meet the requirements set in the Merton Council's Guidance Note for Architects (received September 2016):
- Collection vehicles shall be able to approach the container store within a maximum distance of 10 metres.
- Caretaking staff do not have to transport waste more than 25m to the waste collection point.
- Residents do not have to carry their waste more than 30m from their property to the waste storage area (this excludes vertical distance in buildings).
- **2.22.15** The location of URS stores shall be based upon:
- Sites that are at least 15m from traffic sensitive roads, bus routes, and well away from any emergency access;
- Collection vehicles must not reverse more than 15m;
- Where possible, an alternative route for pedestrians shall be defined while the footway is blocked for collection;
- Vehicle control measures are to prevent access being blocked by parked cars;
- An overhead working clearance of at least 15m, ensuring they are not located beneath any potential obstructions including trees, balconies, walkways, power lines or cables.



2.23 MATERIALS

- **2.23.1** High quality, durable and low maintenance materials are to be used on the façades of the buildings to achieve attractive aesthetics and durability.
- **2.23.2** Facing materials that require regular maintenance regime will be limited in their extent and easily accessible.
- **2.23.3** Metalwork, including parapet coping, rainwater goods, flashings, balustrades and window frames will be colour coordinated.
- **2.23.4** Ancillary spaces and service elements will be sensitively integrated into the fabric of the building. Consumer units will be out of sight, concealed or hidden within external stores.
- **2.23.5** For all façades, except on taller built elements, extensive areas of curtain walling will be avoided.
- **2.23.6** For all façades, uPVC framing elements will not be used.
- **2.23.7** Window frames will be timber or metal, only natural, achromatic or metallic finishes will be used.

2.24 ENERGY

- **2.24.1** A 100% and a 35% reduction in CO2 emissions is to be targeted over residential and non-residential/mixed uses respectively, following the Building Regulations Approved Document Part L (2013) baseline.
- **2.24.2** The energy strategy is based on the Energy Hierarchy, and will follow the GLA energy assessment guidance (March 2016), as follows:
- Use less energy (be lean)
- · Supply energy efficiently (be clean) and
- Use renewable energy (be green)
- **2.24.3** Passive measures to improve the thermal performance of the building fabric will be considered, such as higher levels of insulation for roofs, external walls and floors, and high performance windows and doors.
- **2.24.4** Other important measures include lower air permeability and minimising thermal bridges through best practice detailing.
- **2.24.5** The design of the MRP development follows the cooling hierarchy detailed in Policy 5.9 of the London Plan, including:
- Minimising internal heat generation through energy efficient design.
- Reducing the amount of heat entering a building in summer.
- Managing the heat within the building through exposed internal thermal mass and high ceilings.
- Passive and mechanical ventilation.

2.25 SERVICING

Ventilation

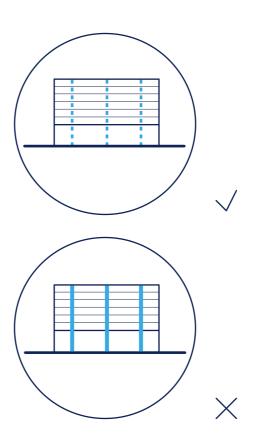
2.25.1 The design will avoid the use of building ventilation and air extract grilles wherever possible. Where they are required they shall not form more than (5%) of the street façade area and shall be fully integrated with the material and composition of the building.

Rainwater & waste pipes

2.25.2 Rainwater or sanitary waste pipes will not be visible on the façades of any building with the exception of wholly residential buildings of 3 storeys or less. Even in those cases they will not be used on principal frontages.

Roof top plant equipment

- 2.25.3 Roof top plant equipment shall be concealed and housed within solid or perforated roof enclosures designed so that the equipment is not visible from the street or neighbouring buildings. With the exception of equipment which for technical reasons, such as communication devices, cannot be housed within an enclosure.
- **2.25.4** Buildings are to have an uncluttered, simple roof profile with plant equipment enclosures integral to the main building form and its architecture, wherever possible.



2.26 DESIGN STANDARD & SUSTAINABILITY

A robust framework for inspirational design

- All streets, squares and parks will be clearly defined by buildings that are appropriately scaled to their setting.
- Building heights will be arranged to support a framework of landmarks, vistas and focal gateways.
- Each development is to be helping to promote distinctive local identity.
- Housing must be conceived and designed as an integrated pattern of streets that connect with surrounding communities and not as a collection of estates.
- Each development is to be planned to optimise the surrounding landscape assets making the most of views and opening up new access-ways.

Streets that put people first

- Each development will be designed with a clear street hierarchy with a variety of street types that provide a legible urban structure to create character.
- Each development will have a permeable layout that offers the pedestrian a choice of safe routes.
- Each street will be designed to provide attractive external space for residents and a movement route for all.
- Each street will have active frontages, with frequent doors and windows animating the public realm and maximising natural surveillance.
- Streets will be designed to reduce reliance on cars and to encourage walking and cycling.

- Each part of the neighbourhood will be made equally welcoming and accessible to all.
- The emphasis will be on reducing traffic speeds and creating a convivial pedestrian environment whilst catering adequately for the car.
- Car impact will be minimised; parking will be accommodated on-street, on-plot to individual houses and in well-designed undercroft car parks or parking courtyards at the rear of buildings.

Efficient public transport

- Public transport is to be designed as an integral part of the street layout, this approach will be applied to each development.
- Streets and pedestrian footpaths will be designed to be safe, well overlooked, well lit and attractive pedestrian routes. Transport links such as bus stops, train and underground stations are easily accessible.

Homes for a diverse & varied population

- Each development will include a range of dwelling types. A mixture of home sizes, house types and tenures to suit people of different incomes and at different stages of their lives.
- All developments will be mixed tenure with homes fully integrated and designed to be 'tenure blind'.

All homes are to be built to <u>Housing SPG</u> standards based on principles of inclusive access and 10% of homes specially designed for wheelchair users.

Places for People

- Each development will be designed to encourage access to local education, training, healthcare, and other community services.
- Each development will be safe, comfortable and attractive. The developments will be distinctive, offer variety and choice.

A low carbon community

- Each development will include energy demand reduction measures including passive design.
- Each development will provide optimal levels of sunlight and daylight, through building orientation, shallow plans and fenestration.
- Each development must consider the incorporation of renewable sources such as wind, photovoltaic, solar hot water systems, biomass and/or ground sourced heating or cooling to contribute to carbon emission reductions.
- A range of design measures will be deployed to avoid negative environmental impacts, including noise, pollution and any potentially negative microclimatic effects.

Making the most of water & recycling waste

- Conservation and the reuse of water is to be strongly encouraged and each development will maximise the use of natural systems through rainwater harvesting and sustainable drainage techniques.
- Each development will include a strategy for segregated waste recycling collection.

Access to a range of open space & play facilities

- Each development to incorporate a local and wider context strategy for the provision of new and/or improved public spaces, inclusive play facilities to suit children of different ages.
- There will be a clear distinction between public, communal and private open spaces.
- All public open spaces will have a specific function and accompanying management regime.

The ecological network

- Each development will utilise the site's intrinsic resources including: climate, landform, landscape and ecology to maximise energy conservation and amenity.
- Urban nature conservation measures will support biodiversity. Private outdoor spaces such as courtyards, patios, roof gardens and balconies will be exploited to their full potential.
- Each development will retain as much of the existing tree stock as is possible and streets and squares will be generously planted with new trees.

BUILT FORM

BREEAM Communities

The principles of BREEAM Communities are:

- Encouraging social interaction by creating comfortable and vibrant spaces in the public realm.
- To provide access to high quality space in the natural environment and/or urban green infrastructure for all.
- Parking that is appropriate for the expected users and well integrated into the development.
- Development that relates to local character whilst reinforcing its own identity.
- Cycling promoted as a leisure activity and as an alternative to vehicle use by providing a safe and efficient cycle network.
- Biodiversity maintained and enhanced and existing natural habitats protected.
- Community involvement in decisions affecting the design, construction, operation and long term stewardship of the development.
- Create a healthy economy (employment opportunities and thriving business).
- To ensure a socially cohesive community.
- Minimise the impacts of environmental conditions on the health and well being of occupants.
- Address the sustainable use of natural resources and the reduction of carbon emissions.
- Encourage sustainable land use and ecological enhancement.
- Address the design and provision of transport and movement infrastructure to encourage the use of sustainable modes of transport.

